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Remedial Action Plan

General Motors Corporation
Saginaw Malleable Iron Plant Property, and
REALM, Inc. Green Point Landfill and
Drum Remediation Area
Saginaw, Michigan

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July 30, 2008
(Modified on December 31, 2008 and
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1. Introduction

This *Remedial Action Plan* (RAP) has been prepared on behalf of the General Motors Corporation (GM), the Remediation and Liability Management Company, Inc. (REALM), and Waste Management, Inc. (WMI). The property addressed by this RAP includes the GM Saginaw Malleable Iron (SMI) Plant Property and the adjacent REALM Green Point Landfill and Drum Remediation Area (DRA) property, all located in Saginaw, Michigan (the Site) (Figure 1-1). This RAP describes current Site conditions, summarizes previously implemented remedial actions, provides a summary of Site-specific cleanup criteria established for the Site, and discusses proposed remedies. The RAP was developed pursuant to Part 201 of the Natural Resources and Environmental Protection Act (NREPA), 1994 PA 451, as amended, and reflects the current and projected future use of the Site. This RAP is being completed pursuant to a Consent Judgment executed between the Michigan Department of Environmental Quality (MDEQ), the Michigan Attorney General's (MAG's) Office, GM, and WMI, and entered by the State of Michigan Circuit Court for Saginaw County on March 16, 1998, Case No. 98-22686-CE-2(Consent Judgment).

The information that forms the basis of this RAP is presented in the *Remedial Investigation Report* (RI Report) (Blasland, Bouck & Lee, Inc. [BBL], July 2001) and the Feasibility Study Report (FS Report) (BBL, July 2003). Additional Site data collected since the RI Report was prepared has also been considered in preparation of this RAP. Appendix A includes comprehensive data summary tables. The FS Report includes the *Human Health Evaluation Report* (HHE), prepared by BBL, and the *Ecological Risk Assessment Report* (ERA), prepared by Exponent. To provide consideration of the new Site data and revised generic MDEQ cleanup criteria, a HHE Addendum is provided as Appendix B of this RAP.

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The RAP has been prepared consistent with the following MDEQ guidance documents:

- *Training Manual for Part 201 Cleanup Criteria*, dated January 2004.
- *Suggested Contents of Part 201 Remedial Action Plans and Plans for Interim Response Activities Designed to Meet Criteria* (draft), dated January 2004.

The purpose of this RAP is to present the technical elements of the selected remedies proposed for the Site.

1.1 Facility Location and Physical Setting

The Site encompasses approximately 273 acres. The SMI Plant Property consists of the northern portion of the Site and includes the SMI Plant and surrounding ancillary areas, two closed Type III Landfills, two stormwater ponds, and a buffer basin (part of a former Water Recycle System). The southern portion of the Site (now owned by REALM) includes the closed Green Point Landfill and the DRA, where drums were previously discovered, excavated, and removed. See Appendix G for the legal description of the Site.

The Site is located approximately 2,000 feet north of the confluence of the Tittabawassee and Shiawassee Rivers and is located on the western half of Section 35, T12N, R4E, in the city of Saginaw, Saginaw County, Michigan. The Site is bounded to the west by the Delphi Automotive Systems Corporation (Delphi) former Saginaw Steering Systems Plant 2 (Plant 2), a junkyard, and another property, which contains miscellaneous debris; to the east by the Saginaw River, a strip of property east of the Green Point Landfill that was previously owned by the Consumers Energy Company (purchased by REALM in 2008), and by property previously used for

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agricultural purposes that now contains a mitigation wetland (this agricultural property was once owned by Ruben Schultz and the State of Michigan, and is now owned by REALM); to the north by commercial, residential, and industrial properties; and to the south by farm fields (Figures 1-1 and 1-2).

Figure 1-2 is a Site plan illustrating the locations of the primary Site features: the SMI Plant; the former Water Recirculation System (WRS), which included the former Primary Settling Pond previously encompassing approximately 2 acres (the pond is dry and has been graded over to form a stormwater drainage swale), the two filled recirculation channels, the former Secondary Settling Pond encompassing approximately 16 acres (now exclusively used as a stormwater management pond), the Stormwater Pond, encompassing approximately 1 acre; the closed eastern 8-acre licensed Type III Landfill; the closed central 8-acre licensed Type III Landfill; the 30-acre Green Point Landfill; and the DRA encompassing approximately 13 acres. The Previously Proposed Type III Landfill is also shown on Figure 1-2. This area was the Site of GM's proposed Type III Landfill; however, the landfill was never fully developed (a constructed base of inert foundry sand still remains).

The topography of the Site is generally flat, with the exception of the closed Type III landfills and the Green Point Landfill, which are mounded above the surrounding land. The Secondary Settling Pond and the Stormwater Pond also result in minor topographic variability in the northern part of the Site. In the south and southwest portions of the Site, wetlands and a series of agricultural ditches which provide for drainage are present. The 100-year floodplain elevation is 594 feet above mean sea level (amsl) (RMT, 1980). Many areas of the Site are below this elevation.

For more details regarding the facility setting, including regional geology and hydrogeology, refer to the RI Report, FS Report, and other documents previously submitted to the MDEQ.

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1.2 Overview of Property Ownership, Past and Current Use of Properties, and Materials Used at the Site

1.2.1 Property Ownership

The SMI Plant Property (which occupies the northern portion of the Site) is currently owned by GM. The Green Point Landfill and DRA (which occupy the southern portion of the Site) are currently owned by REALM. For more information pertaining to historical ownership of the Site and select adjacent properties refer to the RI Report (BBL, 2001) and FS Report (BBL, 2003).

1.2.2 Past and Current Use of Properties and Materials used at the Site

A description of the past and current use of the Site is provided below for each Site area.

SMI Plant and Production Areas

The SMI Plant building occupies an area of approximately 1 million square feet. Active manufacturing at the plant ended in 2007 and current plans are to demolish existing site structures. Prior to plant closure, manufacturing operations consisted of activities associated with casting and heat-treating iron. Scrap metal was melted and transferred through a series of furnaces before it was placed, as molten metal, into the molds to form the castings. Molds, which form the outer shape of the casting, were formed by putting mold sand (a mixture of lake sand, sea coal, bentonite, and water) under pressure around a die. Cores, which form the internal cavities of

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a casting, are made by mixing lake sand with a two-part resin and then injecting a catalyst into the core box to set up the resin. Once the mold and core were completed, molten metal was placed into the mold to form the casting. After cooling, the mold was broken to remove the casting. The resulting castings were then heat-treated and quenched with oil to develop malleability. Several areas discussed below are located within or in the immediate vicinity of the SMI Plant building.

Former Harden, Quench, and Draw Area

The former Harden, Quench, and Draw (HQD) Area is located within the southwestern portion of the SMI Plant building (Figure 1-2). Each of the former HQD units included a quench oil bath used to uniformly cool metal castings. A total of ten HQD units were installed in 1968. Units No. 1 through No. 9 were taken out of service between 1973 and 1991. The remaining unit (No. 10) was used to test alternative quench oil formulas.

Light Nonaqueous Phase Liquid (LNAPL) Assessment and Remediation Area

The LNAPL Assessment and Remediation Area is located within the Unpaved Area southwest of the SMI Plant building, between SMI and the adjacent Delphi property (Figure 1-2). Three 20,000-gallon aboveground storage tanks (ASTs) that contained quench oil are located along the fenced western edge of the Unpaved Area within a concrete secondary containment structure. The Unpaved Area was also used to store roll-off boxes of municipal waste, and miscellaneous other plant materials.

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Quench Pit Area

The Quench Pit Area is located in the former Annealing Department inside the central portion of the SMI Plant building (Figure 1-2). The area contains three quench pits, commonly referred to as direct quench pits #1, #2, and #3. Quench pit #1 was installed in 1966. Quench pits #2 and #3 were installed in 1970. The pits are constructed of stainless steel panels welded together to form a double box or shell. Each quench pit typically held approximately 25,000 gallons of quench oils. The quench pits were used during a heat treatment process. In January 1998, GM completed construction activities that incorporated secondary containment features into the quench pits.

Former Underground Storage Tanks

Eleven USTs have been identified and removed from the SMI Plant Property. The tanks had been installed from 1957 through 1978 and were used to store gasoline (Tanks 1, 3, 4, 5, and 7), diesel fuel (Tanks 2, 6, 9, and 10), and waste oil (Tanks 8 and 11). Tank removal activities, which occurred between 1982 and 1991, were completed in accordance with applicable regulatory guidance at the various times of removal.

I27.7 Area

The I27.7 Area is located in the former Foundry Department inside the northern portion of the SMI Plant building (Figure 1-2). Polychlorinated biphenyl- (PCB-) containing oil was spilled from a transformer onto exposed soil in the I27.7 Area in 1971. The exposed soil was covered with concrete in 1972.

Melting Department Area

The Melting Department Area is located in the northeastern portion of the SMI Plant building (Figure 1-2). The Melting Department started operation in approximately 1970 to 1975, supplying molten iron for the production

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of castings. Iron was melted by electric induction melting furnaces powered by five separate, numbered power supplies (Power Supply 1, 2, 3, 4, and 5). Although the features associated with each power supply varied, typical features included a control room, transformer room, generator room, hydraulic room, pit, and BUSS tunnel.

Previous Metal Feedstock Area

The Previous Metal Feedstock Area is located east of the SMI Plant building (Figure 1-2), and is partially covered by pavement and partially by lawn. This area was previously used for the storage of metal feedstock.

Former CTC Parking Lot East of Plant

The former Casting Technology Center (CTC) Parking Lot is located east of the plant and immediately north of the Previous Metal Feedstock Area. Historical aerial photographs show that this area was a parking lot as early as 1955. The pavement has been removed from this area, clean fill has been added, and a grass cover is in place.

Parking Lot North of Buffer Basin

The Parking Lot North of the Buffer Basin is located between the Buffer Basin and the Previous Metal Feedstock Area. The parking lot is paved and several borings completed through the pavement in 2007 show a one foot thick layer of paving and concrete above sand fill.

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Former Railyard Area

The Former Railyard Area is located north of the SMI Plant building (Figure 1-2). The railroad tracks that provided direct access to this operations area have been removed, grass was planted, and the area is not generally used for plant operations.

Queen Street Dump Area

The Queen Street Dump Area is located in the north-northeast portion of the Site (Figure 1-2). GM purchased the northern margin of the SMI Plant Property (including a portion of the City of Saginaw Queen Street Dump Area) in the early 1970s, when the Center Street Bridge was completed over the Saginaw River, and Queen Street was truncated at its intersection with Center Street. Prior to GM's purchase of the property, local residents dumped municipal waste in this area, thus creating the Queen Street dump, which extends beyond the GM property to the north. There is no evidence to suggest that the waste found in the Queen Street Dump came from any GM facility. Therefore, the waste materials found in this area are not the responsibility of GM. An Affidavit to Support Unremediated Release in a Remedial Action Plan is provided in Attachment 2 for this area.

Former Water Recirculation System (WRS)

The SMI property contains a former WRS, which was taken off line in January 1997 (when the new Water Recycle System went on line). The former WRS received and recirculated non-contact process water, stormwater drainage, and air-scrubber effluents as part of the plant processes. Storm drainage from the southern part of the property was also periodically pumped to the Secondary Settling Pond through an aboveground pipe system to provide makeup water to the plant (the piping system was disassembled during construction of the subgrade of the Green Point Landfill).

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The former system consisted of three settling ponds (primary, secondary, and stormwater) and associated drainage channels, which connected the ponds and returned flow to the plant. The former Primary Settling Pond was approximately two acres in size, but dried up when the plant ceased to use the system. The area was regraded to remove the pond. Highly turbid water had been discharged into the former Primary Settling Pond, where most of the solids settled out. The former Primary Settling Pond then gravity drained to the Secondary Settling Pond, which previously occupied approximately 16 acres, and has reduced in size due to reduced inflows. The Secondary Settling Pond then drained via a weir located on its northeastern side. This water traveled north along the north-south oriented drainage channel to the east-west channel. This water was then directed back into the SMI Plant (Figure 1-2). GM has filled in the drainage channels, and established a stormwater swale and a small wetland area within the former footprint of the channels. The Stormwater Pond, located north of the Secondary Settling Pond, received, and continues to receive, stormwater from roof drains and parking lots, and is discharged via a pump system to the Secondary Settling Pond. In the past, the Stormwater Pond has received incidental quantities of quench oils due to leaks from the cooling towers and associated lines located on the roof of the SMI Plant, in addition to non-contact process water and scrubber effluents.

Regularly dredged materials from the former Primary Settling Pond were previously stockpiled adjacent to the former Primary Settling Pond, and dredged materials from the Stormwater Pond were stockpiled adjacent to the Stormwater Pond. These materials consisted of sand and silt-/clay-size solids, which were continuously removed from the pond to maintain the pond's capacity. In the past, these dredged materials were used for daily cover at the Green Point Landfill during its operation, as fill materials throughout the plant property, and as fill material at GM's Saginaw Metals Casting Operations (SMCO) Landfill also located in Saginaw, Michigan. The sediments from the former Primary Settling Pond, which was dredged regularly, were tested to maintain the SMI Plant's Inert Status with MDEQ (MDEQ Designation for Inertness 92-I-012). The sediments dredged from the Stormwater Pond were disposed of at GM's landfill at SMCO. Routine dredging of both ponds was discontinued following the startup of the Water Recycle System in January 1997, and the Stormwater Pond has been cleaned out and lined. Sediment that accumulated in the Water Recycle System was removed (as it was generated) and shipped off-Site for disposal during the period of system operation.

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Saginaw River Boundary

For purposes of this RAP, the Saginaw River boundary is defined as a narrow (approximately 60 feet wide) strip of land separating the Secondary Settling Pond from the Saginaw River and a portion of the Site located east of the eastern Type III Landfill and adjacent to the Saginaw River (Figure 1-2).

Green Point Landfill

The Green Point Landfill is located in the southern portion of the Site (Figure 1-2). The Green Point Landfill was owned by Ruben Schultz and was operated by various commercial enterprises between the 1950s and 1978. The landfill was reportedly used for the disposal of municipal waste, foundry sand, and unspecified quantities and types of waste from a variety of industrial facilities (RMT, 1979). In 1978, the Green Point Landfill stopped receiving waste and was closed in accordance with Michigan regulations at the time of closure. GM purchased the property containing the landfill in 1982. The landfill was capped, consistent with Part 115 of Michigan Act 451, and the Green Point Landfill Cover System Certification Report was submitted to the MDEQ in January 2000.

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Type III Landfills

The Site contains two closed, Type III industrial solid waste landfills (referred to as the Eastern and Central Type III landfills, as identified by their relative location on the property). These two landfills received spent foundry sands, scrubber residues, slag, and other materials approved for Type III disposal (e.g., refractory brick and core butts). The Eastern Type III landfill started receiving waste in 1979 and was closed in 1984. The Central Type III landfill received wastes from 1984 (after the closure of the Eastern landfill) until approximately 1990, when it was closed. Waste characterization was conducted as part of landfill permit operating requirements, and closure certifications for these two landfills were filed with the MDEQ. Solid wastes generated by the SMI Plant have been disposed of off Site since 1990.

Former Hillock Area of the DRA

The Former Hillock Area of the DRA is located in the southwest portion of the Site (Figure 1-2). Prior to GM's purchase of this property in 1982, the Former Hillock Area of the DRA was used for disposal purposes (several drums, drum fragments, and wastes associated with drums were identified in this area). There is no evidence to suggest that the drums found in the Former Hillock Area of the DRA, or in the vicinity of the Former Hillock Area of the DRA, came from any GM facility. However, GM removed the impacted Former Hillock Area of the DRA materials and backfilled the excavated areas with clean fill (for a summary of remedial activities implemented in the DRA see Section 2.3.1 below).

During a test pit investigation program conducted in the Former Hillock Area of the DRA in August 2000 to investigate the source of VOCs in the groundwater, a concrete tile drain pipe was uncovered. The concrete tile drain pipe extends from the neighboring junkyard property into the northern portion of the former Hillock Area of the DRA (Figure 1-2). Sampling of materials in the pipe indicated that the pipe discharges volatile organic compounds-(VOC) impacted water from an off-Site source. The Former Hillock Area of the DRA impacted with off-Site VOCs is limited in size and the media affected is shallow groundwater underlain by clay. An Affidavit to Support Unremediated Release in a Remedial Action Plan is provided in Attachment 2 for this area.

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1.3 Evidence Property is a "Facility"

A "Facility" is defined in Part 201 324.20101(o) as

> *"any area, place, or property where a hazardous substance in excess of the concentrations which satisfy the requirements of Section 20120a(1)(a) or (17) or the cleanup criteria for unrestricted residential use under part 213 has been released, deposited, disposed of, or otherwise comes to be located. (..)."*

Table 1-1 presents a summary of Site-specific conditions (including relevant exposure pathways and exposure point concentrations) and applicable cleanup criteria that trigger remedial action proposed in this RAP for the Site. Table 1-1 has been developed based on the information presented in the RI and FS Reports (including the HHE and ERA), and recent data. The GM/REALM Site, shown on Figure 1-2, meets the definition of a facility.

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1.4 Cleanup Criteria

The MDEQ Remediation and Redevelopment Division (RRD) *Operational Memorandum No. 1, Part 201 Generic Cleanup Criteria Part 213 Risk-Based Screening Levels,* dated December 10, 2004 (Op Memo 1) provides the general process for determining final cleanup criterion for a given chemical constituent of concern (COC) in soil and groundwater. As a first step, the Site data were compared to all of the Generic MDEQ Criteria, regardless of the exposure pathways that are appropriate for the Site. The second step in this process was selecting the appropriate land use criteria. The Site is located in an industrial area of Saginaw and is used for industrial purposes. In accordance with MDEQ guidelines, this Site falls within the Industrial Land Use Category. As such, Industrial and Commercial II, III, &IV Generic Cleanup Criteria are applicable to the Site. Given the potential for groundwater to migrate off Site, MDEQ residential criteria were applied to groundwater at the non-river downgradient property boundary. Groundwater Surface Water Interface (GSI) Criteria were applied to the groundwater associated with the Saginaw River Boundary Area.

Following these screening steps, any chemical constituents present at concentrations in excess of the applicable MDEQ *Generic Cleanup Criteria* were carried through for a more thorough analysis. Merely exceeding these generic cleanup values did not imply that the concentrations found at the GM SMI Plant represent a health risk, only that additional analysis was required.

Chemical constituents whose concentrations exceeded applicable *Generic Cleanup Criteria* were then compared to *Facility-Specific Generic Cleanup Criteria* (FSGCC). FSGCC are based on Site-specific physical characteristics that are not expected to change, such as groundwater characteristics (MDEQ, December 2004).

In accordance with MDEQ guidance (Op Memo 1), *Site-Specific Cleanup Criteria* (SSCC) were developed for those chemical constituents exceeding the FSGCC. The purpose of this subsequent analysis is to provide risk-based concentrations that are more reflective of current and reasonably anticipated future conditions at this facility. The development of the SSCC requires certain modifications to the exposure assumptions and default variables used to derive the MDEQ *Generic Cleanup Criteria*. A summary of the SSCC applicable to each Site area subject to this RAP is presented in Table 1-1.

1.5 Identification of Contiguous Facilities

The entire 276-acre Site including the SMI Plant; former WRS; two closed licensed Type III Landfills; Green Point Landfill; and the DRA constitute the facility for the purposes of this RAP. Contiguous facilities include the Delphi former Plant 2 property, and the REALM Peninsula Area property.

1.6 Compliance with Part 201, Rule 536

The nature and extent of environmental impacts at the Site have been evaluated through multiple investigations. This information was presented in the RI Report (BBL, 2001), and the FS Report (BBL, 2003). Supplemental data collected since the FS Report was submitted have been presented within monthly reports. These documents provide a detailed description of the geology, hydrogeology, vertical and horizontal extent of groundwater and soil impacts, and local conditions which govern the fate of the released constituents of concern. Section 2.1 (below) provides a discussion of previous investigations conducted for the specific Site areas addressed in this RAP and their results.

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1.7 Other Releases

All known releases associated with the Site have been, or will be addressed by the measures described in this RAP. The Queen Street Dump Area and the Former Hillock Area of the DRA both contain impacts that are not the responsibility of GM, as described in 1.2.2. In addition, impacts to groundwater from the adjacent Delphi property are present northwest of the Green Point Landfill, and dioxin contamination within the flood plain of the Saginaw River, which includes most of the Site, is well documented. For each of these areas Affidavits to Support Unremediated Release(s) in a Remedial Action Plan are included in Attachment 2.

1.8 Report Organization

This RAP is organized into the following sections:

Section	Purpose
1 – Introduction	Presents the purpose and objective of the RAP. Provides a description of the Site background including the location and physical setting, and an overview of the Site history. In addition, this section provides evidence that the Site is a "Facility" as defined in Part 201 of Michigan State Statues, Chapter 324, Act 451 of 1994, as amended (Part 201).
2 – Facility Characterization, Analysis, and Remedial Actions	Presents a description of the nature and extent of environmental impacts at the Site.
3 – Implementation Details and Documentation	Provides documentation that cleanup criteria presented in the RAP are appropriate for the Site and presents a plan to address the environmental impacts at the Site.
4 – References	Presents citations for reports, guidance documents, and other literature referenced throughout the RAP.

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2. Facility Characterization, Analysis, and Remedial Actions

This section presents a description of the nature and extent of environmental impacts at the Site, a summary of past investigations, an evaluation of existing Site conditions and exposure pathways, and completed, ongoing, and proposed remedial actions.

2.1 Facility Characterization: Description of Nature and Extent of Contamination

The nature and extent of environmental impacts at the Site have been evaluated through multiple investigations. This information was summarized in the RI Report (BBL, 2001), and was used as the basis of the HHE and ERA, included as appendices to the FS Report (BBL, 2003). Additional data collected since the RI and FS were prepared have been presented in monthly reports and were evaluated in the HHE Addendum (Appendix B). Summaries of the Site soil and groundwater data that exceed generic MDEQ criteria are shown in Tables 2-1, 2-2, and 2-3.

For a detailed description of the geology, hydrogeology, vertical and horizontal extent of groundwater and soil impacts, and local conditions which govern the fate of the COCs, refer to the above-referenced documents. Presented below is a brief discussion of Site groundwater conditions, followed by a summary of conditions at each of the specific Site areas identified in the FS as requiring additional actions consisting of area-specific restrictive covenants, ongoing remediation, implementation of new remedial actions, and/or monitoring.

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Summary of Site Geology and Hydrogeology

The overburden deposits at the Site have been characterized through the completion of more than 200 soil borings and more than 30 test pits. The overburden deposits at the Site are comprised of the following primary units (in descending order): fill materials consisting primarily of foundry sand, glaciolacustrine silts and clay ("upper silty clay unit"), a sand unit that grades coarser with depth (and bifurcates toward the Saginaw River into two separate units, separated by a silty clay unit ["middle silty clay unit"]), glaciolacustrine silty clay ("lower silty clay unit"), and glacial till. The subsurface distribution of the overburden units varies across the Site. The sand unit pinches out beneath the plant building and also toward the western and northern Site boundaries. In addition, the sand unit separates into upper and lower units separated by glaciolacustrine silt and clay in the vicinity of the Saginaw River. Bedrock was encountered at a depth of 86 feet below the ground surface at an upgradient boring location that was advanced through the overlying silty clay and till.

The results of in-situ hydraulic conductivity (K) testing completed at Site wells were grouped according to the screened lithologic unit to determine the following geometric mean values in centimeters per second (cm/sec) for each unit: fill (1.54E-03), silt (1.05E-03), upper sand (1.41E-03), lower sand (3.86E-03), upper silty clay (1.07E-06), and lower silty clay (2.83E-06). These data show that the silty clay units are confining relative to the sand deposits, and that they provide physical barriers to downward groundwater flow.

Water table maps and potentiometric surface elevation maps for the lower sand unit were constructed based on the collected groundwater elevation data, and are presented in the RI Report (BBL, July 2001). The general direction of groundwater flow at the water table is toward the southeast in the northern portion of the Site and to the south southeast in the southern part of the Site, with some variations as a result of mounding from the Site

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landfills and the former WRS surface water bodies. The lower sand unit potentiometric surface shows flow generally to the east with some north-south divergence of flow in the center of the Site and a component of flow to the south to southwest in the vicinity of the DRA. On one of the dates that water level measurements were collected, a potentiometric gradient from the Saginaw River to groundwater was observed, the apparent result of temporal bank storage due to high water levels in the river. Actual groundwater flow in response to gradient reversals is expected to be minimal both in duration and travel distance.

Vertical hydraulic gradients were evaluated by comparing the water level and potentiometric surface measurements made at each monitoring well cluster location. This evaluation indicated downward vertical gradients throughout the overburden, with the exception of upward vertical gradients noted between the upper and lower sand units in the vicinity of the Saginaw River.

Groundwater quality in this region of Michigan, including the Site, has been highly affected by natural brine. The shallow groundwater encountered in the overburden deposits is in an unconfined or "water table" condition. The overburden deposits at the Site consist of layers of clay to sand-size sediments. Groundwater yield at the Site is poor in these overlying deposits. The depth to groundwater varies from 2 to 10 feet below the land surface and depends on the proximity of recharge areas and seasonal influences. Bedrock groundwater quality is poor due to presence of heavy mineralization and would generally be unfit for use as a potable water source due to high concentrations of chlorides, iron, total and dissolved solids, and other minerals (*United States Geological Survey* [USGS, 1980]). The chloride and sodium levels detected in the groundwater at the Site consistently exceed MDEQ generic drinking water criteria. However, the elevated levels of chloride and sodium appear to be the result of interaction with natural brine in the region, and not related to historic or current Site operations. An evaluation of regional groundwater quality compared with Site conditions was presented in *Background Groundwater Quality Assessment Report* (BBL, 1998). Appendix H also includes an evaluation of impacts from bedrock groundwater to deep overburden groundwater near the Saginaw River.

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LNAPL Assessment and Remediation Area

LNAPL was observed on the water table south of the main plant building during the RI. In order to assess the horizontal and vertical extent of LNAPL in this area, a series of soil borings and monitoring wells were installed in the area. A detailed discussion of the field investigations is presented in the *LNAPL Assessment and Recovery Remedial Investigation Interim Report* (BBL, 1995). Tables 2-4 and 2-5 present the soil data collected in this area of the Site, and soil data for those parameters that exceed the relevant generic MDEQ criteria are shown on Figure 2-1.

Quench Pit Area

LNAPL was detected in the Quench Pit Area. Subsequently, the Quench Pit Area investigation was conducted to assess groundwater quality in the area surrounding the three quench pits. The Quench Pit Area investigation results are presented in the *Quench Pit Investigation Report* (BBL, 1998). The monitoring wells that have contained LNAPL in the Quench Pit Area are identified on Figure 2-1.

Former UST #7 Area

Following removal of former UST #7, several monitoring wells and soil borings were installed to characterize subsurface conditions in the Former UST #7 Area. The investigation results indicated the presence of lead and benzene, toluene, ethylbenzene and xylene (BTEX) in subsurface soil and groundwater in the immediate vicinity of former UST #7. For more details pertaining to the UST #7 subsurface investigation and results refer to the

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Former UST #7 Area, Supplemental Investigation Report (BBL, 1997). Table 2-6 presents the soil data collected in this area of the Site, and soil data for those parameters that exceed the relevant generic MDEQ criteria are shown on Figure 2-1.

I27.7 Area

PCBs were detected sporadically in sediments of various sewers in the I27.7 Area. A subsurface soil investigation was conducted in 1998 in the I27.7 Area to identify the horizontal and vertical extent of PCB-impacted soil, believed to be related to the dropping of a transformer. The investigation results indicated that PCBs were present in some soil samples collected beneath the plant floor in the I27.7 Area at concentrations exceeding MDEQ generic criteria. The impacted soils are not accessible to plant workers since the soils are located beneath the plant floor. Groundwater was not encountered during the investigation. Table 2-7 presents the soil data collected in this area of the Site, and soil data for those parameters that exceed the relevant generic MDEQ criteria are shown on Figure 2-1. For more details regarding the I27.7 Area subsurface soil investigation refer to *Feasibility Analysis* (CRA, 1998).

Melting Department Area

An investigation was conducted in 1996 to evaluate the presence and extent of PCB contamination in concrete floors of rooms associated with the Melting Department power supplies. PCBs were detected in concrete floor samples and select soil samples collected beneath the plant floor in the Melting Department Area. Based on the results of the investigation, limited soil excavation beneath the floor of the Melting Department was completed in 1996 (CRA, 1997). Table 2-8 presents the soil data collected in this area of the Site, and soil data for those parameters that exceed the relevant generic MDEQ criteria are shown on Figure 2-1. For more details regarding the Melting Department Area investigation and results refer to *Feasibility Analysis* (CRA, 1998).

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Previous Metal Feedstock Area

Surface and subsurface soil investigation activities conducted within the Previous Metal Feedstock Area as part of the RI indicated the presence of select metals (aluminum, cobalt, iron, and manganese) at concentrations above the MDEQ generic criteria. Tables 2-9 and 2-10 present the soil data collected in this area of the Site, and soil data for those parameters that exceed the relevant generic MDEQ criteria are shown on Figure 2-2. For more details regarding Previous Metal Feedstock Area soil investigation and results refer to the RI Report.

Former CTC Parking Lot East of Plant

Elevated concentrations of manganese have been detected in surface soil in this area of the Site. In 2001, approximately 8-inches of clean fill were placed and the area was seeded with grass. Tables 2-11 and 2-12 present the soil data collected in this area of the Site, and soil data for those parameters that exceed the relevant generic MDEQ criteria are shown on Figure 2-2.

Parking Lot North of Buffer Basin

Elevated concentrations of manganese have been detected in fill material below the paving that covers this area of the Site. In 2007, two soil borings were completed to a depth of four feet during an investigation to identify a suitable source of soil for possible site drainage improvements. Tables 2-13 and 2-14 present the soil data collected in this area of the Site, and soil data for manganese that exceed the relevant generic MDEQ criteria are shown on Figure 2-2.

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Former Railyard Area

Investigation activities conducted in the Former Railyard Area as part of the RI indicated the presence of PCBs in surface soil at concentrations above the MDEQ generic values. To address the presence of PCBs, a surface soil excavation program was implemented in this area (see Section 2.3). Post-excavation confirmatory soil sampling results indicated that PCBs were not present in the soil samples at concentration above MDEQ generic criteria. However, manganese and total chromium were detected at concentrations above MDEQ generic industrial criteria for particulate inhalation, although the 95% Upper Confidence Limit (UCL) was below the residential particulate inhalation criteria for manganese. In May 2007, the MDEQ collected 12 surface soil samples from off-site areas located northwest of the Former Railyard Area to evaluate potential impacts to residential areas from windblown dust. The MDEQ laboratory analytical results showed no off-site impacts from plant operations. The sample location documentation and laboratory data are included in Attachment 1. As indicated in the HHE (Appendix A of the FS Report [BBL, 2003]), manganese was detected at concentrations below the calculated SSCC for soil and therefore is not considered to present an exposure risk. To investigate the detection of total chromium at concentrations above the generic particulate inhalation criteria for hexavalent chromium, samples were collected at the locations exceeding the inhalation criteria to determine the relative percentages of hexavalent and trivalent chromium. The results indicated that the total chromium concentration consisted of trivalent chromium only, and the generic particulate inhalation criteria for trivalent chromium were not exceeded. Tables 2-13 and 2-14 present the soil data collected in this area of the Site, and soil data for those parameters that exceed the relevant generic MDEQ criteria are shown on Figure 2-3.

Queen Street Dump Area

During the course of monitoring well installation as part of the RI activities, oil sheens were observed in soil samples collected from wells located adjacent to Center Street in the Queen Street Dump Area. Subsequently, a subsurface investigation was conducted to evaluate the extent and potential source of the oil sheens along Center Street. The investigation results indicated that the oil sheen area in the vicinity of Center Street correlates with the waste associated with the Former Queen Street Dump, and not with any known GM source. The oil sheen area extends to the northeast past the Site perimeter. The results of the investigation are presented in *Center Street Supplemental Investigation Report* (BBL, 1997).

Saginaw River Boundary

Several monitoring wells and soil borings were installed in the Saginaw River Boundary area to characterize surface and subsurface conditions in this area. The investigation results indicated that surface soil in the Saginaw River Berm Area (a narrow strip of land east of the Secondary Settling Pond) contained manganese at concentrations that exceeded the generic industrial particulate inhalation criteria and SSCC value, and that select inorganics and PCBs were sporadically detected in groundwater at concentrations above the MDEQ Generic GSI criteria. A limited soil excavation program was completed to remove soil from the berm that contained manganese at concentrations above the SSCC. Table 2-15 presents the soil data collected in this area of the Site, and soil data for those parameters that exceed the relevant generic MDEQ criteria are shown on Figure 2-4.

Note that, as discussed in the RI Report (BBL, 2001) and FS Report (BBL, 2003), historical PCB detections in groundwater at river boundary wells are believed to be the result of the entrainment of soil particles in the samples that were artificially mobilized by sampling activities, and that PCB transport in groundwater is not occurring. Groundwater sampling completed most recently following an ultra-low-flow sampling methodology has shown the presence of PCBs in one well, and contingency actions are being implemented, as defined in the Operation, Maintenance, and Monitoring Plan (Appendix C). It is still believed that this very low detection is the

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result of soil particle entrainment. A few inorganics have been detected inconsistently above GSI criteria at river boundary wells. Arsenic, manganese, thallium, phosphorus, and ammonia have been sporadically detected above the GSI criteria at individual monitoring wells. For more details regarding Saginaw River Boundary investigations and results refer to the FS Report (BBL, 2003), other documents previously submitted to the MDEQ, and Appendix H.

Green Point Landfill

Several environmental investigations have been conducted at the Green Point Landfill, dating back to 1976. Leachate samples collected from the Green Point Landfill contained select COCs as summarized in the HHE Report. However, the exposure pathways associated with the leachate were determined to be incomplete and were eliminated from further consideration. A summary of these investigations is provided in the *Remedial Investigation/ Feasibility Study Work Plan* (BBL, 1997) and in the RI Report (BBL, 2001).

Type III Landfills

As part of the RI activities, groundwater samples were collected from select monitoring wells located at the closed Type III Landfills. Select VOCs, SVOCs, PCBs, and inorganics were detected in groundwater samples at concentrations exceeding drinking water criteria (which is not an exposure pathway for this Site). However, as presented in HHE, none of the constituents were detected at concentrations exceeding the SSCC. For more details refer to the RI Report (BBL, 2001) and the FS Report (BBL, 2003), which includes the HHE as Appendix A).

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Former Hillock Area of the DRA

Various investigations have been completed to delineate the presence, nature, and extent of impacted materials in the Former Hillock Area of the DRA. The historical and pre-RI efforts are described in detail in the RI Report (BBL, 2001). A geophysical investigation, followed by a test pit investigation, was conducted as part of the RI in the Former Hillock Area of the DRA to characterize the presence of "target materials". Geophysical data was presented in the *Geophysical Investigation Report for the Drum Remediation Area* (BBL, 1994). The results of the test pit investigation were presented in the *Test Pit Investigation Report* (BBL, 1995). Additional activities associated with the Former Hillock Area of the DRA conducted during the RI consisted of soil sampling, a wetland mitigation area evaluation, supplemental groundwater investigations, and a supplemental test pit program.

Following completion of remedial activities to address "target materials" at the Former Hillock Area of the DRA (see Section 2.3), a few VOCs were detected in groundwater samples collected from a temporary monitoring well located in the Former Hillock Area of the DRA. A test pit program was subsequently implemented to determine the source of the VOCs. During the test pit program, a concrete tile drain pipe was found to be discharging VOC contaminated water into the Former Hillock Area of the DRA from the neighboring junkyard property. Water in the drain pipe was sampled where the pipe entered the REALM property from the adjacent parcel. The same VOC constituents previously detected at the on-Site temporary monitoring well were detected in the water samples collected from the pipe. This indicated migration of VOCs to the Site from an off-Site source. Tables 2-16 and 2-17 present the groundwater data collected in this area of the Site.

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Sewers

At the request of the City of Saginaw and the MDEQ, a program involving water sampling and analysis for total PCBs at the GM SMI Plant sewer discharge to the City of Saginaw POTW and in several on-Site sewer locations was implemented in 1995 and 1996. A detailed program of sewer mapping and sampling at the SMI Plant Property was implemented by GM. The results of these activities are presented in the *Feasibility Analysis* (CRA, 1998) for the sewers, and in monthly reports submitted to the MDEQ.

2.2 Facility Analysis/Conditions Evaluation

This section presents Site information to provide evidence that control of hazardous substances and soil and groundwater risks have been evaluated. In addition, this section identifies reasonable and relevant exposure pathways.

A detailed description of Site conditions has been presented in various documents previously submitted to the MDEQ, including, but not limited to, the RI Report (BBL, 2001) and the FS Report (BBL, 2003), which includes the HHE. As discussed in Section 2.1 above, this RAP includes discussion of the specific Site areas that, in addition to imposing the Site-wide restrictive covenant, were identified in the FS Report (BBL, 2003) as requiring further action (e.g., ongoing remediation/monitoring, intrusive remedial action, and/or area-specific restrictive covenants). The Site areas that do not require further action (as identified in the FS Report [BBL, 2003] and presented above) are not discussed herein.

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The paragraphs below provide a brief discussion of whether the exposure pathways for COCs that are present at the Site at concentrations above the SSCC values are reasonable and relevant. If the exposure pathway is considered reasonable and relevant, a reference to other sections of this RAP that provides a description of the response activity to address the risk of exposure is provided.

2.2.1 Control of Hazardous Substances Sources

The only potential on-Site sources of COCs are the Site media impacted by COCs as a result of past releases. Many of the original source areas have been addressed as interim remedial response measures. For a description of remedial measures implemented/to be implemented to address the on-Site sources refer to Sections 2.3.2 and 2.3.3 of this RAP.

The off-Site source of VOC-impacted water that discharges into the Former Hillock Area of the DRA will not be addressed as part of the remedial action proposed in this RAP.

2.2.2 Groundwater Contamination Risks to Drinking Water

Groundwater flow at the Site is controlled by the Saginaw River, which acts as a discharge point for groundwater within the overburden. The majority of groundwater beneath the Site discharges directly to the River along the eastern property boundary. Exceptions include limited areas along the northern and southern property boundaries where groundwater flows off-Site before discharging to the River, Green Point Landfill where groundwater flows beneath a property owned by REALM before entering the Saginaw River. Figure 1-1

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shows the locations of the adjoining properties. There are no residences located within the groundwater flow path downgradient of the Site.

Groundwater yield from the shallow overburden deposits at the Site is poor. The depth to groundwater varies from 2 to 10 feet below the land surface, depending on the proximity of recharge areas and seasonal influences. Bedrock groundwater quality is poor due to presence of heavy mineralization and would generally be unfit for use as a potable water source due to high concentrations of chlorides, iron, total and dissolved solids, and other minerals (*United States Geological Survey* [USGS, 1980]). The chloride and sodium levels detected in the groundwater at the Site consistently exceed MDEQ generic drinking water criteria. However, the elevated levels of chloride and sodium appear to be the result of interaction with natural brine in the region, and not related to historic or current Site operations. An evaluation of regional groundwater quality compared with Site conditions was presented in *Background Groundwater Quality Assessment Report* (BBL, 1998).

The GM SMI Plant and areas to the north of the Site are located within the limits of the City of Saginaw. John Premo with Saginaw City Hall confirmed there are no private wells located within the portion of a one mile radius of the Site that lies within the City limits. Upon connection to the Saginaw City water supply (obtained from Lake Huron), all residences are required to disconnect their private wells from the household potable water supply as required by Michigan Public Act 399, and the wells are capped in accordance with wellhead protection under the authority of the Saginaw County Health Department (John Premo, Saginaw City Hall). There is a component of groundwater flow to the south along the southern edge of the property. In this area, groundwater flow is toward the south due to the local influence of the Green Point Landfill, and groundwater enters the agricultural farm field south of the Site before migrating to the Saginaw River. There are no residential properties in the flow path.

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Due to the discharge of Site groundwater to the Saginaw River, and the poor natural quality and low yield of groundwater in the vicinity of the Site, groundwater use off-Site as a drinking water source is not of concern. Restrictive covenants on the deed will prevent the future use of groundwater for potable purposes on this Site.

2.2.3 Groundwater Contamination Risks Due to Dermal Exposure

The groundwater contamination risk due to dermal exposure has been evaluated as part of the Site-specific human health evaluation activities. The generic MDEQ Groundwater Contact Criteria (GCC) for dioxin/furan was exceeded at one monitoring well in the LNAPL Assessment and Remediation Area. The evaluation results indicated that the Site-Specific GCC for dioxin/furan was not exceeded. For more details refer to the FS Report (BBL, 2003), which includes the HHE, and the HHE Addendum (Appendix B of this RAP). The GCC for vinyl chloride was exceeded in the Former Hillock Area of the DRA as the result of impacts from an off-site source.

2.2.4 Groundwater Contamination Risks to Indoor Air

The groundwater contamination risk to indoor air hazard has been evaluated as part of the Site-specific human health evaluation activities. The evaluation results previously indicated that one COC (vinyl chloride) was present in the groundwater at the Former Hillock Area of the DRA at a concentration exceeding generic MDEQ Industrial Groundwater Volatilization to Indoor Air Inhalation Criteria (IGVIIC). However, due to an increase in the IGVIIC, the detected concentration does not exceed the current criteria. For a summary of Site-specific conditions (including COC concentrations and relevant exposure pathways) that trigger remedial action proposed in this RAP and applicable SSCC see Table 1-1. Please note that GM and REALM are not responsible

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for the historical disposal activities in the Former Hillock Area of the DRA. Vinyl chloride in this area is associated with discharge of VOC-impacted water from an off-Site source via an underground concrete tile pipe that enters the Former Hillock Area of the DRA at the western property limit.

A detailed discussion of the indoor air inhalation risk evaluation methods and results is presented in the FS Report (BBL, 2003), which includes the HHE as Appendix A.

2.2.5 Groundwater Contamination Risk to Surface Water Resources

Previous groundwater investigation activities in the Saginaw River Boundary Area have indicated that select inorganics and PCBs have been sporadically detected in samples collected from groundwater monitoring wells in this area. GM does not believe that the PCBs detected in these wells are actually mobile in groundwater but rather are related to entrained particles in the water sample related to berm soil. A summary of the groundwater monitoring activities and results is presented in the FS Report (BBL, 2003) and in Appendix H. A description of the proposed monitoring activities for this area is included in Section 2.3.3. A Mixing Zone Application to address several constituents detected near the Saginaw River is included as Appendix I.

2.2.6 Soil Contamination Risks Due to Direct Contact

The soil contamination risk from direct contact exposure has been evaluated as part of the Site-specific human health evaluation activities. The evaluation results indicated that two COCs are present in three Site areas at concentrations above the generic MDEQ Industrial and Commercial II, III and IV Direct Contact (IDC) Criteria. The Site areas and the COCs that exceeded their applicable IDC criteria are listed below.

- LNAPL Assessment and Remediation Area – contains lead at concentration above the generic MDEQ IDC criteria, but below the Site-Specific IDC criteria.

- I27.7 Area – contains PCBs at concentrations above the generic and Site-Specific IDC criteria (under a concrete barrier).

- Melting Department Area – contains PCBs at concentrations above the generic and Site-Specific IDC criteria (under a concrete barrier).

- Former Railyard Area – contains lead above the generic MDEQ IDC Criteria, but below the Site-Specific IDC criteria.

For a summary of COC concentrations and applicable IDC values for the above-listed areas see Table 1-1. A detailed description of the direct contact exposure risk evaluation is presented in the FS Report (BBL, 2003), which includes the HHE as Appendix A. A brief discussion of exposure pathways for each of the three above-listed areas is presented below.

LNAPL Assessment and Remediation Area: Soil containing lead at concentrations exceeding the generic MDEQ IDC value was identified at the ground surface (below paving and subgrade materials) and at a depth of 4 to 6 feet below ground surface. Potential direct contact of a production or maintenance worker, or of an intrusive worker could occur in this area. To mitigate potential risk for future direct contact exposure to soil containing

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lead at concentration above the generic IDC value, remedial measures described in Section 2.3.3 will be implemented at the LNAPL Assessment and Remediation Area.

I27.7 Area and Melting Department Areas: Soils containing total PCBs at concentrations above the generic and Site-Specific IDC value remain in the Manhole I27.7 Area and Melting Department Area. However, these soils are located beneath the concrete floor slabs. The concrete slabs act as an impermeable barrier, eliminating direct contact as an exposure pathway. The only potential for direct contact with these constituents would be in the event of removal of the concrete slab. To mitigate potential risk for future direct contact exposure to soil containing PCBs at concentrations above the Site-Specific IDC value, remedial measures described in Section 2.3.3 will be implemented in the I27.7 Area and Melting Department Area.

2.2.7 Soil Contamination Risks Due to Ambient Air Inhalation

The soil contamination risk from ambient air inhalation exposure has been evaluated as part of the Site-specific human health evaluation activities. The evaluation results indicated that a COC (manganese) is present in soil located in five Site areas at concentrations exceeding the generic Industrial Particulate Soil Inhalation Criteria (IPSIC) (see Table 1-1). To mitigate potential risk for future exposure to manganese at concentration above the generic IPSIC value via inhalation of ambient air, remedial measures described in Section 2.3.3 will be implemented at the Previous Metal Feedstock Area, Former Railyard, Former CTC Parking Lot East of the Plant, Parking Lot North of the Buffer Basin, and the Saginaw River Boundary.

For more details refer to the HHE FS Report (BBL, 2003), which includes the HHE as Appendix A, and the HHE Addendum included as Appendix B of this RAP.

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2.2.8 Soil Contamination Risks Due to Inhalation of Indoor Air

The soil contamination risk from indoor air inhalation exposure has been evaluated as part of the Site-specific human health evaluation activities. The evaluation results indicated that one COC (benzene) is present in a soil sample collected in 1996 at the Former UST #7 Area (approximately 120 feet from the employee tunnel) at concentrations exceeding Site-Specific Industrial Soil Volatilization to Indoor Air Inhalation Criteria (ISVIIC). The results of air sampling performed within the employee tunnel indicated that benzene in the Former UST #7 Area soil does not pose a risk of exposure via indoor air inhalation in the employee tunnel. However, future land use in the Former UST #7 Area (e.g., building construction) could potentially present an exposure risk. To mitigate this potential risk, remedial measures described in Section 2.3.3 will be implemented in the Former UST #7 Area.

No risk of indoor air inhalation exposure to soil contaminants at concentrations above the Site-Specific ISVIIC value has been identified in any of the remaining Site areas.

A detailed description of the exposure risk evaluation methods and results is presented in the FS Report (BBL, 2003), which includes the HHE as Appendix A.

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2.2.9 Soil Contamination Risk to Groundwater Used for Drinking Water

As presented in the FS Report (BBL, 2003), *Background Groundwater Quality Assessment Report* (BBL, 1998), and summarized in Sections 2.1 and 2.2.2 above, groundwater in the City of Saginaw (including the Site and surrounding area) is unlikely to be used as drinking water. Groundwater flow at the Site is also toward the Saginaw River, which serves as a groundwater discharge point and interceptor. Regardless, a comparison of Site groundwater data to the generic MDEQ criteria, including the drinking water criteria, is shown in Table 2-3. Within the table, each of the data points that exceed the generic criteria is evaluated. A restrictive covenant will be implemented to prevent the use of groundwater at the Site for drinking water. A similar restriction will be placed on the two REALM properties located east of the Green Point Landfill, as described in Section 2.3.3.

2.2.10 Soil Contamination Risk to Groundwater Due to Dermal Contact

No risk of soil contamination to groundwater due to a dermal contact hazard has been identified at the Site. Furthermore, as presented in Section 2.2.3, no risk of dermal exposure to groundwater above the Site-Specific GCC values was identified at the Site. For more details refer to the FS Report (BBL, 2003), which includes the HHE as Appendix A.

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2.2.11 Soil Contamination Risk to Surface Water Due to Groundwater Impacts

No soil contamination risks to surface water due to impacts to groundwater (i.e., soil contaminant leaching to groundwater) have been identified at the Site.

2.2.12 Erosion Control Adjacent to Surface Waters

Soil erosion was not identified in the FS Report (BBL, 2003) as an unacceptable risk requiring action to achieve the remedial action objectives (RAOs) specified in the FS Report. However, GM will implement erosion control measures in select areas along the Saginaw River berm. Any areas along the berm with sparse vegetation, including newly graded areas, will be reseeded, and limited re-grading will be completed, as needed. A description of the remedial measures to be implemented at the Saginaw River berm area to mitigate future soil erosion in this area is presented in Section 2.3.3 of this RAP.

2.2.13 Surface Water Sediment Contamination Risk

No surface water sediment contamination risk has been identified at the Site. For more details refer to the RI Report (BBL, 2001 and the FS Report (BBL, 2003).

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2.2.14 LNAPL and Abandoned/Discarded Containers

As presented in Section 2.1 above, LNAPL was observed in the following areas:

- LNAPL Assessment and Remediation Area (LNAPL); and
- Quench Pit Area (LNAPL).

In order to address the presence of LNAPL and/or oil sheens in the LNAPL Assessment and Remediation Area and Quench Pit Area, remedial measures described in Section 2.3.2 are being implemented.

GM removed the impacted materials from the Former Hillock Area of the DRA, and backfilled the excavated areas with clean fill (for a summary of remedial activities implemented in the DRA see Section 2.1 above). There are no known remaining areas with abandoned/discarded containers with hazardous substances at the Site.

No acute toxic and physical hazard risks associated with COCs present at the Site have been identified.

2.2.15 Ecological and Aesthetic Impacts

The ERA was conducted to assess potential risks to ecological receptors that may result from exposure to constituents detected in Site environmental media. The ERA risk evaluation indicated that the potential ecological impacts associated with Site constituents are minimal. As there are no significant ecological risk issues, no remedial evaluations were performed. For more details refer to the FS Report (BBL, 2003), which includes the ERA as Appendix B.

There will be short-term aesthetic impacts associated with excavating at the DRA Hillock to block the flow of contaminated water through a drain tile from the adjacent property, and during completion of limited re-grading activities along the Saginaw River Boundary.

There will be no aesthetic impacts associated with implementation of the remedial measures (e.g., restrictive covenants and sampling) in the remaining Site areas.

2.2.16 Other Risks from Hazardous Substance Releases at or Posed by the Facility

In order to protect the integrity of the Green Point Landfill cover and the Type III Landfills (see Sections 1.2.2 and 2.1 above) remedial measures, including restrictive covenants to prevent excavation of the landfills will be implemented, as described in Section 2.3.3.

2.3 Completed, Ongoing, and Proposed Remedial Actions

This section presents a discussion of how areas at the Site not meeting cleanup criteria (either historically or currently) will be addressed to meet the Site-specific cleanup criteria. For Site areas previously addressed via interim response actions (IRAs), evidence that the IRAs were complete and effective is provided in this section.

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Multiple IRAs have been completed to address various environmental impacts identified at the Site. In addition to the IRAs completed in the past, several ongoing IRAs are currently being implemented at select Site areas. The past and ongoing IRAs are described in the FS Report (BBL, 2003). A summary of the completed and ongoing remedial actions is presented in Sections 2.3.1 and 2.3.2 below.

In order to meet RAOs established for the Site (for a description of the Site RAOs refer to the FS Report), GM, WMI, and REALM propose to implement remedial actions that consists of the following components:

- Continue implementation of the ongoing IRAs to the extent needed.
- Impose Site-wide and area-specific restrictive covenants to limit future land use options without first re-evaluating and addressing, as appropriate, exceedances of criteria relevant to the proposed land use and therefore mitigating potential impacts to human health and the environment.
- Implement intrusive remedial measures at select Site areas.

A detailed description of the proposed remedial action is presented in Section 2.3.3 below.

2.3.1 Completed Remedial Actions

The following IRAs were previously completed in the Site areas that were identified in the FS Report (BBL, 2003) as requiring further action (IRAs completed in the Site areas that do not require further action [as identified in the FS Report] are not discussed herein).

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I27.7 Area

Several IRAs were conducted to address the presence of PCBs in this area. The sewer lines in the I27.7 Area were cleaned in December 1997 and a sewer sleeve was installed between two manholes in the vicinity of the area (I23.6 and J25.8) to prevent infiltration of impacted materials into the sewer from the I27.7 Area. In addition, sediment in the 60-inch diameter storm sewer downstream of the I27.7 Area (identified as a potential source of PCBs) was removed and a sewer sleeve was inserted. Also, as part of the IRA activities, a 48-inch diameter storm sewer was cleaned and sediment was removed from the sewer. Following sewer cleaning and sleeve placement activities, the concrete floor was repaired/replaced. For more details refer to *Feasibility Analysis* (CRA, 1998) and FS Report (BBL, 2003). As part of the plant demolition activities, the inputs into the sewer will be blocked.

Melting Department Area

As presented in *Feasibility Analysis* (CRA, 1998), the Melting Department Area was cleaned, capacitors in this area were replaced, and rooms containing PCBs at concentrations above action levels were remediated in 1996 and 1997 as an IRA. The flooring material in the five capacitor rooms and in one hydraulic room was completely removed. Soils containing PCBs at concentrations above the MDEQ Generic IDC Criteria were excavated to the extent practicable, given the access limitations within the plant. Groundwater was not encountered during the removal activities. As part of the IRA conducted in this area, sediment accumulated within a 30-inch sewer line was removed and the sewer line was cleaned. PCB-impacted soil remains in this area below the concrete floor slab, but is not accessible to plant workers and therefore is not a complete exposure pathway.

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Former Railyard Area

In order to address the presence of PCBs in the Former Railyard Area surface soil, GM implemented a soil excavation IRA. The IRA was completed in 1998. The results of the post-excavation confirmatory soil sampling indicated that the soils containing PCBs at concentrations above MDEQ generic industrial criteria have been removed from the Former Railyard Area. For more details regarding the soil excavation IRA at the Former Railyard Area refer to the RI Report (BBL, 2001).

As discussed in the draft RAP (BBL, 2004), manganese concentrations in surface soil were detected at concentrations above the generic residential criteria for particulate soil inhalation, raising the concern with MDEQ that soil could move off-Site to residential areas. Since the draft RAP was prepared, ten additional surface soil samples were collected for manganese analysis from within the railyard. Although the residential screening criteria (3,300 mg/kg) was exceeded at four of the thirty five individual sampling points, the calculated 95% upper confidence limit for manganese in this area of the Site does not exceed the residential criteria. In addition, the HHE included an evaluation that was completed to demonstrate that Site conditions (e.g., soil manganese concentrations) are protective of off-Site residents. Exposure to particulates at the Site boundary was quantified using equations from USEPA (2001) *Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites* to calculate a manganese soil concentration that will not pose an unnecessary risk of harm to off-Site receptors. The resulting cleanup criterion for protection of off-Site residents is 23,000 mg/kg. The maximum concentration in the railyard (5,030 mg/kg) is well below this acceptable concentration. To further assess the presence or absence of off-site impacts, the MDEQ collected and analyzed soil samples from off-site areas in 2007 and found no impacts related to the facility (see MDEQ June 19, 2007 email in Attachment 1).

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Former Hillock Area of the DRA

Although GM was not responsible for placement of the drums and other waste materials in this area, various voluntary response actions have been undertaken to address the DRA. IRAs have included the removal of drums and other "target materials" (e.g., drum fragments, wastes associated with drums, stained soil, soil associated with an organic vapor content of greater than 600 ppm, soil containing NAPL) encountered within the DRA.

In 1987, GM excavated, overpacked, and staged 339 drums/drum fragments (none of which contained hazardous wastes) from the western portion of the area. In July 1989, GM collected and disposed of surface metal debris, collected drums at the ground surface and overpacked the drums as needed, restaged the 339 drums identified above, excavated 23 test pits (removing drums and drum fragments encountered) and characterized the staged materials. In February 1990, GM disposed of 408 tons of staged material (characterized as a hazardous waste due to the presence of copper and lead at concentrations above regulatory criteria). In June 1990, GM disposed of 1,538 tons of non-hazardous waste and eight drums off-Site as non-hazardous waste. In June 1994, an intact drum was discovered during removal of additional surface debris. The drum was characterized and appropriately disposed off-Site. In March and April 1995, two intact drums and drum fragments were removed, overpacked, sampled, and disposed off-Site as non-hazardous waste.

In addition, the soil and fill that constituted the remaining unexcavated part of the Former Hillock Area was excavated to the water table and placed within the fill materials of the Green Point Landfill prior to capping (GM had previously excavated and removed fill from a majority of the DRA). Clean fill was then used to bring the area up to grade.

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The historical and pre-RI efforts are described in detail in the RI Report (BBL, 2001). Response actions conducted subsequently in the DRA are described in the FS Report (BBL, 2003) and *Remedial Investigation/Feasibility Study Work Plan* (BBL, 1997).

Sewers

At the request of the MDEQ, a program involving weekly PCB sampling and analysis of the sewer discharge to the POTW was implemented during the RI. Samples were collected and analyzed weekly from GM's POTW discharge point of compliance and the City of Saginaw's water intake line. In addition, at GM's request, grab samples were collected weekly from a manhole located along the 42-inch diameter sanitary sewer line south of the visitor parking area.

GM has since conducted extensive testing, cleanup, and remediation associated with the Site sewer system in coordination with the City of Saginaw. These IRAs included installing a cure-in-place pipe inside the 42-inch diameter pipe from the diversion chamber through an inverted siphon, and installing a 36-inch diameter slip liner in the 42-inch diameter storm sewer line. For more information regarding sewer IRAs refer to the FS Report (BBL, 2003), and other documentation previously submitted to the MDEQ. As part of the plant demolition activities, the inputs into the sewer will be blocked.

Green Point Landfill

In accordance with the Consent Judgment, GM and WMI proposed, and MDEQ reviewed and approved, the design and installation of a cap for the landfill consistent with current closure requirements for solid waste municipal landfills. Construction of the landfill cap (consistent with Part 115 of Michigan Act 451) was completed and the *Green Point Landfill Cover System Certification Report* (BBL, January 2000) was submitted to the MDEQ. MDEQ has approved the Green Point Landfill remedial activities in the Interim Response (Brouillet, B., July 2000).

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Former UST #7 Area

An IRA consisting of monitored natural attenuation (MNA) was initiated in the Former UST #7 Area in 1997 in accordance with MDEQ-approved *Interim Response Action Work Plan* (BBL, 1997) and was completed in 2008.

2.3.2 Ongoing Remedial and Monitoring Actions

A summary of the ongoing operation, maintenance and monitoring activities at the Site is presented in the Summary Operation, Maintenance, and Monitoring (OM&M) Plan provided as Appendix C. The following IRAs are currently being implemented in the Site areas listed below:

LNAPL Assessment and Remediation Area

In 1997, an automated LNAPL recovery system was installed at the LNAPL Assessment and Remediation Area. The system was constructed as part of the commitment to the MDEQ to install an LNAPL Recovery System IRA pursuant to Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Part 201). A description of operation and maintenance (O&M) and monitoring

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of the LNAPL recovery system was presented in *LNAPL Recovery System Operation and Maintenance Plan* (BBL, 2000). A summary of key elements of this O&M Plan is included in Appendix C.

As of October 2007, when the automated system was temporarily shut down pending building demolition, the automated LNAPL recovery system had recovered approximately 3,700 gallons of LNAPL (total includes some water). Prior to installation of the automated recovery system, an additional 8,700 gallons of LNAPL mixed with water were recovered manually during storm sewers repair activities in the area. Due to the decrease in the extent and volume of recoverable LNAPL remaining in the subsurface, the system is being re-evaluated to determine if changes to the system are appropriate. Minor quantities of LNAPL are currently being bailed on a monthly basis from monitoring wells in the area until power can be reconnected to this area and the automated system restarted.

Quench Pit Area

An automated LNAPL recovery skimmer pump was installed at the Quench Pit Area in February 2002. The ongoing operation and performance of this pump has been reported in the monthly reports to the MDEQ. As reported to MDEQ, as of September 2007 this system has removed approximately 2,400 gallons of LNAPL. Also, prior to installation of the automated recovery system (between 1997 and 2002), an additional 6,500 gallons of LNAPL mixed with water were recovered manually from the Quench Pit Area. The monitoring wells are currently being manually bailed pending the hook up of a power supply to the automated system.

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Green Point Landfill

In accordance with the Consent Judgment, GM and WMI proposed the design and installation of a cap for the landfill consistent with current closure requirements for solid waste municipal landfills. Construction of the landfill cap (consistent with Part 115 of Michigan Act 451) was completed and the *Green Point Landfill Cover System Certification Report* (BBL, January 2000) was submitted to the MDEQ. MDEQ has approved the Green Point Landfill remedial activities as an Interim Response (Brouillet, B., July 2000). The operation, maintenance, and monitoring programs at the Green Point Landfill are ongoing in accordance with post-closure operation and maintenance procedures presented in *Final Engineering Design Report for Green Point Landfill* (BBL, 1998) and *Post-Closure Environmental Monitoring Plan* included as Appendix K to the Engineering Design Report, with modifications as approved by the MDEQ. GM will continue to monitor groundwater in the vicinity of the Green Point Landfill. The proposed monitoring plan, detailed in the Summary Operation, Maintenance, and Monitoring Plan (Appendix C), includes modifications to the original monitoring plan that have been previously approved by the MDEQ, and additional changes that are based on the collection of a substantial amount of additional data during the past year. Modifications to the monitoring plan include the removal of TCL VOCs from the sampling program analyte list, development of a site-specific inorganic constituent analyte list based on historical data and substitution of this analyte list for the Target Analyte List (TAL) inorganics analyte list, removal of 8 monitoring wells from the monitoring program (MW-128WT, MW-128S1, X-1A, X-1B, X-1CR2, X-2A, X-16A, and X-16B) that are located northwest, west, and southwest , and addition of 8 monitoring wells to the sampling program (MW-183WT, X-4A, X-4CAUGR, X-4D, X-9AR, X-9BR, X-9CAUG, and X-9D) to monitor groundwater quality along the Saginaw River. Following RAP approval, the monitoring program described in the Operation, Maintenance, and Monitoring Plan (Appendix C), which reflects these changes, will be implemented for the Green Point Landfill.

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2.3.3 Proposed Additional Remedial Actions

The proposed additional remedial actions described below are considered appropriate to meet the RAOs established for the Site (refer to the FS Report [BBL, 2003]), and to comply with cleanup criteria of Part 201. The proposed remedial actions are based on the Site data collected and an evaluation of the exposure pathways and risks associated with potential impacts of Site-related constituents on human health and the environment. A description of the components of the proposed remedial actions is presented below.

Continue Implementation of the Ongoing IRAs

The ongoing IRAs described in Section 2.3.2 above will continue to be implemented in accordance with their respective implementation plans (referenced in Section 2.3.2 above).

Impose Site-Wide and Area-Specific Restrictive Covenants

A Site-wide restrictive covenant will be instituted to restrict future land use to the limited industrial and limited commercial II, III and IV categories under Section 20120a(1)(g) and (1)(i) of the NREPA. The owner may re-evaluate the exceedances and make appropriate changes to the allowable Site uses, provided that the changes are reviewed and approved by GM and MDEQ. A Site-wide restrictive covenant will also be instituted to restrict future use of groundwater at the Site, and prohibit the installation of wells for potable or domestic uses. A restriction preventing the use of groundwater for drinking water will also be placed on the property east of the Green Point Landfill that is owned by REALM In addition to the Site property as a whole being subject to the restrictive covenant, the following Site areas will also be deed restricted to limit and control future activities.

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LNAPL Assessment and Remediation Area and Quench Pit Area

To protect against direct contact with light non-aqueous phase liquid (LNAPL) and/or hazardous substances present in subsurface soil, intrusive activities must be completed in accordance with requirements set forth under Michigan and federal OSHA. In the LNAPL Assessment and Remediation Area, activities are restricted to access by a maintenance worker who spends no more than 160 days, per any such worker per year, and an intrusive worker spends no more than 30 days, per any such worker per year, in the area. MDEQ will be notified whenever these activities are undertaken and records will be kept of activities that can be reviewed by MDEQ upon request. All excavated soils and extracted fluids will be managed in accordance with the requirements of Section 20107a of NREPA and other applicable local, state and federal laws and regulations.

Former UST #7 Area

In order to protect against inhalation of hazardous substances in indoor air that migrate from contaminated soil, no new enclosed structure suitable for short or long term human occupation shall be constructed in the area of benzene exceedance without the use of an adequate vapor barrier under such new enclosed structure (or other engineering control such as vapor venting), unless it can be demonstrated that the soil or soil vapor in this area meets applicable MDEQ soil volatilization to indoor air criteria (or equivalent) established at the time of the new construction. All excavated soils and extracted fluids will be managed in accordance with the requirements of Section 20107a of NREPA and other applicable local, state and federal laws and regulations.

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Former DRA Hillock Area

The fill materials previously present in this area of the Site were excavated and moved beneath the cap of the Green Point Landfill. In order to protect against hazardous constituents that could potentially be present in the underlying soil (note that sampling was not conducted following removal of the fill) and hazardous constituents present in groundwater, intrusive activities must be completed in accordance with the health and safety requirements set forth under MiOSHA, OSHA, and all other applicable local, state, and federal laws and regulations. Activities in this area of the property are restricted so that an intrusive/construction worker spends no more than 30 days per any such worker per year in the area. The MDEQ shall be notified whenever these activities are undertaken and records shall be kept of activities that can be reviewed by the MDEQ upon request for five years. All excavated soils and extracted fluids shall be managed in accordance with the requirements of section 20107a of NREPA and all other applicable local, state, and federal laws and regulations.

Former CTC Parking Lot East of the Plant, and Parking Lot North of the Buffer Basin

In order to protect against the inhalation of hazardous substances present in soil, cover materials will be maintained in the designated areas. Where a grass cover is present, vegetation must be maintained at a minimum of 50%. Activities in this area of the Site are restricted to access by an intrusive/construction worker who spends no more than 30 days, per any such worker per year, in the area. To implement other activities in this area, work must be conducted in accordance with Health and Safety requirements established by Michigan and Federal OSHA. All excavated soils and extracted fluids will be managed in accordance with the requirements of Section 20107a of NREPA and other applicable local, state and federal laws and regulations.

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Green Point Landfill, Type III Landfills, I27.7 Area, and Melting Department Area

In order to protect against direct contact with hazardous substances present in soil or fill material, cover materials must be maintained in these Site areas. Intrusive activities in the defined areas of waste must be completed in accordance with Health and Safety requirements established by Michigan and Federal OSHA. MDEQ will be notified whenever these activities are undertaken and records will be kept of activities that can be reviewed by MDEQ upon request. All excavated soils and extracted fluids will be managed in accordance with the requirements of Section 20107a of NREPA and other applicable local, state and federal laws and regulations.

Former Railyard Area, Previous Metal Feedstock Area, and Saginaw River Boundary

In order to protect against the inhalation of hazardous substances present in surface soil, the vegetative cover will be maintained (minimum of 50 % coverage of soil surface) in the designated areas, and roadways may not be installed unless properly constructed (at least 6 inches of gravel or pavement cover). Activities in this area of the Site are restricted to access by a maintenance worker who spends no more than 160 days, per any such worker per year, and an intrusive/construction worker who spends no more than 30 days, per any such worker per year, in the area. To implement other activities in this area, work must be conducted in accordance with Health and Safety requirements established by Michigan and Federal OSHA. MDEQ will be notified whenever these activities are undertaken and records will be kept of activities that can be reviewed by MDEQ upon request. All excavated soils and extracted fluids will be managed in accordance with the requirements of Section 20107a of NREPA and other applicable local, state and federal laws and regulations.

The Site areas subject to the proposed restrictive covenants are shown on Figure 2-5. A copy of the draft restrictive covenants document prepared in accordance with Section 324.20120b of Part 201 is included as Appendix D of this RAP. The draft restrictive covenants document includes a Site description. The restrictive

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covenants will be instituted and notices to appropriate authorities will be provided within the time frames specified in Section 324.20120b of Part 201 and Rule 299.51013 of the Part 201 Administrative Rules. The ultimate goal of the restrictive covenants is to eliminate potential complete exposure pathways at the Site in the future.

Parking Lot North of Buffer Basin

The pavement and cement parking lot (or other cover if paving is replaced) will be maintained and work will be completed in accordance with Michigan OSHA and federal OSHA. MDEQ will be notified whenever these activities are undertaken and records will be kept of activities that can be reviewed by MDEQ upon request. All excavated soils and extracted fluids will be managed in accordance with the requirements of Section 20107a of NREPA and other applicable local, state and federal laws and regulations.

Implement Intrusive Remedial Measures at Select Site Areas

Intrusive remedial measures will be implemented at the Saginaw River Boundary Area and at the Former Hillock Area of the DRA and, in general, will consist of the following:

- Implementation of erosion control measures at the Saginaw River Berm Area, as needed.
- Capping of the pipe discharging VOC-impacted water from an off-Site source into the northern part of the Former Hillock Area of the DRA.

A description of the remedial measures to be implemented at the two above-referenced Site areas is presented in Appendix E.

Implement Groundwater Monitoring Program

Groundwater monitoring programs will be implemented, as described in the Operation, Maintenance, and Monitoring Plan (Appendix C) in the following Site areas:

- Saginaw River Boundary Area;
- Green Point Landfill;
- Former DRA Hillock Area;
- LNAPL Assessment and Remediation Area (groundwater and LNAPL elevation measurement only); and
- Quench Pit Area (groundwater and LNAPL elevation measurement only).

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3. Implementation Details and Documentation

This section presents the implementation details and documentation associated with the remedial actions implemented to date, as well as the proposed remedial actions. The specific information presented in this section is based on MDEQ's draft Guidance Document for *Suggested Format and Content for Remedial Action Plans* MDEQ, 2004) and addresses the following topics:

- documentation that cleanup criteria are appropriate for the Site;
- identification of indicator chemicals;
- source control analysis;
- statistical analysis;
- implementation schedule;
- identification and rationale for construction/implementation monitoring;
- operation and maintenance plans;
- plans for abandonment of observation/monitoring wells;
- effectiveness monitoring plan;
- contingency plans;
- comparison of Site zoning information to Site-specific criteria;
- land use or resource use restrictions;
- documentation of easement holders;
- monitoring plan;
- specifications for permanent markers;
- proposed financial assurance mechanism; and
- proposed legally enforceable agreement.

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3.1 Appropriate Cleanup Criteria

This RAP is based on generic and Site-Specific Criteria (SSCC) developed for relevant Site use, that satisfy the applicable requirements of Part 201, as provided for in Section 324.20120a(2) of Part 201. The SSCC were developed in accordance with MDEQ guidelines. The SSCC are based on alternative exposure assumptions unique to the Site and are considered appropriate to meet goals and objectives of the proposed remedial action. A summary of the SSCC values that triggered remedial action at the Site areas subject to this RAP is presented in Table 1-1. For more details regarding development of the SSCC refer to the FS Report (BBL, 2003), which includes the HHE as Appendix A, and the HHE Addendum (Appendix B of this RAP). The evaluation criteria for the groundwater monitoring program along the Saginaw River are MDEQ's GSI Criteria.

3.2 Rationale for Indicator Chemicals

The indicator chemicals proposed for the groundwater monitoring programs are based on the results of previous testing of groundwater samples collected in this area.

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3.3 Statistical Analysis

The 95% upper confidence limit (UCL) of the arithmetic mean was calculated and used where appropriate during the HHE. In accordance with MDEQ guidance, the 95% UCL of the arithmetic mean can be used to determine compliance with the generic criteria for select pathways, provided the 95% UCL reasonably represents the areas over which exposures are expected to occur. The 95% UCL was calculated for each chemical detected within each area of concern (AOC), provided the data sets were sufficiently robust to adopt this statistical approach. The 95% UCLs were compared to the MDEQ criteria except in data sets where the 95% UCL exceeded the maximum concentration. Where this occurred, the maximum detected concentration was used as the exposure point concentration (USEPA, 1992). A detailed explanation of the derivation of the 95% UCL values is provided in the FS Report (BBL, 2003), which includes the original HHE as Appendix A of the FS Report.

3.4 Source Control Analysis

On-Site sources of COCs have previously been addressed or are currently being addressed through IRAs, as described in the FS Report (BBL, 2003). Two of the five ongoing IRAs address environmental media that have been impacted with COCs as a result of past releases and may currently act as a source of COCs (LNAPL Assessment and Remediation Area and Quench Pit Area). A detailed description of these IRAs is presented in the documents referenced in the preceding sections of this RAP and summarized in Sections 2.3.1 and 2.3.2.

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The off-Site source of VOC-impacted water that discharges into the Former Hillock Area of the DRA is not related to any GM activities, and will not be addressed by remedial action proposed in this RAP. Remedial measures proposed for the Former Hillock Area of the DRA in Section 2.3.3 is designated to stop future discharge of VOC-impacted water into the Former Hillock Area of the DRA from the concrete tile pipe.,

Impacts to groundwater by VOCs in an area northwest of the Green Point Landfill have also recently been identified during investigations of the adjoining REALM Peninsula Area Property (Figure 1-1). It has been demonstrated that the source of VOCs is located on an adjoining property owned by others. The off-Site source of VOCs is not addressed by remedial actions proposed in this RAP.

No known new sources of COCs are being introduced at the Site as a result of current operations.

3.5 Site Contamination Not Addressed by RAP

The VOC impacts to groundwater and potentially to surface water in the Site area located north west of the Green Point Landfill and west of the SMI facility are not addressed by this RAP. These impacts were recently identified and are currently being investigated by the owner of the adjoining source property.

There is also an area on the northern boundary of the Site known as the Queen Street (Center Street) Dump. Although exceedances of criteria were not encountered here, it is an area with an oil sheen on the groundwater and an observed decreased DO level in the groundwater. This area was not part of GM operations and is not addressed in this RAP.

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As noted in Section 1.2.2, the VOCs detected in groundwater in the Drum Remediation Area are not associated with GM operations and are not addressed by the RAP.

Recent investigations within the Saginaw River watershed have identified the presence of dioxins and furans in areas subject to flooding. These constituents were released at an upstream source and were distributed with flood water from the Saginaw River and upstream tributaries. The presence of elevated concentrations of these compounds has not been documented at the Site; however, it is possible that elevated concentrations are present. Dioxin/furan issues are not addressed in this RAP. An affidavit to support unremediated releases is provided in Attachment 2

3.6 Implementation Schedule

The ongoing IRAs described in Section 2.3.2 will be implemented as described in the OM&M Plan (Appendix C).

In general, Section 324.20120b(4) requires that the restrictive covenants shall be recorded with the register of deeds for the county in which the property is located within 21 days of the MDEQ's selection or approval of the remedial action plan, or within 21 days of the completion of construction of the containment or barrier, as appropriate to the circumstances.

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The intrusive remedial activities in the Saginaw River Boundary Area (i.e. re-vegetating exposed areas along the berm and regrading as needed) and Former Hillock Area of the DRA (i.e. capping the drain tile) will be initiated within 8 months following MDEQ's approval of the RAP and RADR, respectively, and will be implemented during a typical construction season.

3.7 Construction/Implementation Monitoring

This section provides a description of environmental monitoring to be conducted during implementation of the remedial action. The monitoring will be conducted to document that installation of the remedial action does not pose unacceptable hazards to humans and the environment.

As described in Section 2.3.3 above, the proposed remedial action consists of continuing implementation of the ongoing IRAs, imposing restrictive covenants, groundwater monitoring, and implementing intrusive remedial measures. The ongoing IRAs are being implemented in accordance with previously approved operation and implementation plans (referenced in Section 2.3.2 above). As such, the environmental monitoring for these IRAs has been addressed in these plans and is not discussed herein, except for any proposed modifications. Imposing restrictive covenants and groundwater monitoring do not involve intrusive activities and, as such, do not require any environmental monitoring. The only additional components of the proposed remedy that requires environmental monitoring are intrusive activities proposed for the Saginaw River Boundary Area and Former Hillock Area of the DRA. A summary of the environmental monitoring proposed for these areas is presented below.

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The environmental monitoring in the Saginaw River Boundary Area and Former Hillock Area of the DRA will include the following:

- Visual observation. A GM/REALM representative will be present on-Site during implementation of the intrusive remedial measures in the Saginaw River Boundary area (i.e., erosion control measures) and Former Hillock Area of the DRA to verify that the remedy is implemented properly. The GM/REALM representative will document that action levels are observed, and that erosion control measures during regrading of the berm are sufficient and adequate.

3.8 Operation and Maintenance

This section provides a summary of operation and maintenance for the ongoing and proposed remedial actions.

Operation, maintenance and monitoring of the ongoing IRAs are being conducted in accordance with previously approved operation and implementation plans (referenced in Section 2.3.2) which include operation, maintenance, and monitoring, as appropriate. Key elements of these O&M plans are presented in Appendix C. For more details refer to the respective operation and implementation plans (referenced in Section 2.3.2).

As required by Section 324.20120b(4) of Part 201, the restrictive covenants will run with the land and be binding on the owner's successors, assigns, and lessees. Such restrictions may be modified in the future only upon approval by the MDEQ, REALM, and GM. No other operation or maintenance is proposed for the restrictive covenants.

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Groundwater elevation and quality monitoring programs are proposed for the Saginaw River Boundary and Green Point Landfill. Groundwater and LNAPL elevation monitoring programs are proposed for the LNAPL Assessment and Remediation Area and the Quench Pit Area. Integrity and overall condition of monitoring wells included in these sampling plans will be observed during the monitoring events. Repairs will be made as needed.

Operation and maintenance for the Former Railyard Area, Former CTC Parking Lot, Saginaw River Boundary Area will include monitoring the vegetative cover, and re-vegetating where appropriate. If any roads are constructed in the Former Railyard Area or the Saginaw River Boundary Area, the road condition will be monitored and maintained.

3.9 Abandonment of Observation/Monitoring Wells

As presented in the previous sections, ongoing groundwater monitoring programs are currently being implemented in the Green Point Landfill Area, and LNAPL Remediation Area. In addition, groundwater monitoring programs are proposed for the Saginaw River Boundary area and Former Hillock Area of the DRA. Monitoring wells located in the above-listed areas that are or will be included as part of the ongoing or proposed groundwater monitoring programs, respectively, will remain in place. The remaining on-Site wells (that are not and will not be included as part of the ongoing and proposed groundwater monitoring programs) will be abandoned, in accordance with a schedule agreed upon with the MDEQ. Upon the conclusion of all response activities requiring the use of groundwater wells or other subsurface devices detailed in the RAP, including operation, and long-term monitoring, notice will be provided to the MDEQ to obtain approval for abandonment or removal of all remaining wells and other response activity-related devices at the Site. Following MDEQ approval, well abandonment will be completed in accordance with American Society of Testing Materials

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(ASTM) Standard D5299-92 *Standard Guide for Decommissioning Groundwater Wells, Vadose Zone Monitoring Devices, Boreholes and Other Devices for Environmental Activities*.

3.10 Effectiveness Monitoring Plan

Groundwater monitoring will be performed at the Green Point Landfill Area, Former DRA Hillock Area and Saginaw River Boundary Area on an annual basis. Each of these monitoring programs will continue as part of remedial activities, and will be modified over time by increasing or decreasing the sampling frequency and number of wells monitored, in response to collected monitoring data. The specifics of the proposed monitoring plan are provided in the Summary OM&M Plan included as Appendix C. These monitoring activities, along with the monitoring of the landfill caps, the vegetated areas, and the maintained roadways (existing or newly constructed) will monitor the effectiveness of the remedy.

3.11 Remedial Action Contingency Plan

The Site monitoring data collected as described in the above section will be evaluated on an ongoing basis to assess the effectiveness of the implemented activities. Contingency actions will be implemented as needed during RAP implementation. The Summary OM&M Plan (Appendix C) describes the specific contingency actions proposed for the groundwater monitoring program.

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3.12 Evidence of Zoning

The Site is located in an industrial area of Saginaw that is and will continue to be used for industrial purposes for the foreseeable future. A zoning map, presented as Figure 3-1, shows that the Site is zoned for industrial purposes. A Site-wide restrictive covenant to restrict future land use to limited industrial and limited commercial II, III, and IV uses is proposed as part of the remedial action for the Site (for more information see Section 2.3.3 above).

3.13 Land, Groundwater, and Surface Water Use Restriction

As presented in Section 2.3.3 above, a Site-wide restrictive covenant will be instituted to restrict future land use to limited industrial and limited commercial II, III, and IV uses, and to restrict future use of groundwater at the Site to prevent the use of groundwater for drinking water purposes. In addition to the Site property as a whole being subject to restrictive covenants, the following Site areas will also be subject to various restrictive covenants to limit and control future activities in these areas:

- LNAPL Assessment and Remediation Area;
- Quench Pit Area;
- Former DRA Hillock Area;
- Previous Metal Feedstock Area;
- Former UST #7 Area;
- Parking Log North of Buffer Basin;
- Former CTC Parking Lot East of the Plant;

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- Green Point Landfill;
- Type III Landfills;
- I27.7 Area;
- Melting Department Area;
- Former Railyard Area; and
- Saginaw River Boundary.

The Site areas subject to the proposed restrictive covenants are shown on Figure 2-5. GM and REALM will file (for their respective properties), for recording with the Saginaw County Register of Deeds, the Restrictive Covenant within twenty-one days of approval by MDEQ, in accordance with the law. Copies of the draft restrictive covenant documents prepared in accordance with Section 20120b of Part 201 are included in Appendix D of this RAP.

3.14 Documentation of Easement Holders

One easement holder has been identified on the Site property. The Consumers Energy Company has an easement at the north-west corner of the property, at the location shown on Figure 1-2. The easement area is located at the upgradient edge of the property, and the area is not known or suspected of containing hazardous substances at concentrations above the generic Industrial Cleanup Criteria. No ongoing monitoring or maintenance, as described in this RAP, will take place in the easement area. Therefore, the deed restrictions will not impact the easement area.

Michigan Electric Transmission Company ("METC") has an easement on the former Consumers Energy Company property located east of the Green Point Landfill (Figure 1-2), which is not part of the Site. Discussions are ongoing with METC to obtain an agreement to the proposed deed restrictions that impact that property.

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3.15 Monitoring Plan

This section presents a description of activities to be conducted to demonstrate effectiveness of the proposed remedy.

Groundwater sampling activities will be conducted in the Green Point Landfill Area on an annual basis. Monitoring of LNAPL thickness and groundwater level elevations will be conducted in the LNAPL Remediation Area and the Quench Pit Area on an annual basis. Additional groundwater monitoring programs are proposed for the Saginaw River Boundary area and Former Hillock Area of the DRA, as described in Appendix C. GM may propose modifications to the monitoring plan, including deletion of monitoring wells and/or constituents and changes in the sampling frequency, subject to approval by the MDEQ.

Monitoring will also be conducted as described in the OM&M Plan in areas where vegetation must be maintained and in areas of the Saginaw River Boundary if roadways are constructed. Cap integrity will also be monitored for the GPL and the two Terminated Type III landfills.

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3.16 Specifications for Permanent Markers

GM and WMI will install permanent markers on the Site within sixty days of receipt of the recorded restrictive covenant from the Saginaw Register of Deeds. One primary permanent marker will be posted at each deed restricted area at a location that is readily visible. The permanent markers will be constructed of stone, cast metal, concrete, or similar durable material, and will contain the following information legibly presented in or on a durable material (e.g. stone, metal, concrete):

WARNING
This area has been restricted due to the presence of hazardous substances
This is the _[Insert Site Area Name and description of area]
[Graphic depiction of the restricted area relative to the Site]
[List of Restrictions]
See Liber ___and Page ___
Saginaw County Register of Deeds
MDEQ Part 201 site identification number

The location of each primary permanent marker is identified on Figure 2-5. Marker posts constructed of durable material will be installed at three additional locations around the perimeter (or at the corners) at each deed restricted area. All permanent markers will be inspected annually and maintained in legible condition in accordance with the provisions of the MDEQ-approved Operation, Maintenance, and Monitoring Plan (Appendix C).

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3.17 Proposed Financial Assurance Mechanism

GM will be obtaining a Financial Assurance Mechanism (FAM) acceptable to MDEQ for the Site, according to the schedule set forth in the Consent Judgment. The FAM will be established and maintained in accordance with Section XXIX (Financial Capability) of the Consent Judgment. The FAM will be in an amount sufficient to cover Long-Term RAP Cost at the Site for a thirty year period and will be in a form that allows the MDEQ to immediately contract for the response activities for which financial assurance is required in the event the LPG fails to implement the required tasks.

3.18 Legally Enforceable Agreement

The Consent Judgment for this Site provides for the implementation of the RAP and is the Legally Enforceable Agreement for this Site.

The following elements of the provisions required pursuant to Part 20120b{3) that are missing from the Consent Judgment. These elements are further outlined in this Section and contain the enforceable provisions pertaining to:

(a) – the Abandonment of Observation and Monitoring Wells presented in Section 3.9 of the RAP

(b) – the Land, Groundwater, and Surface Water Use Restrictions presented in Section 3.13 of the RAP

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(c) – the Specifications for Permanent Markers presented in Section 3.16 of the RAP

(d) – the Proposed Financial Assurance Mechanism presented in 3.17 of the RAP

With final approval of the RAP, the RAP will be incorporated as an enforceable component of the Consent Judgment as stipulated in Section XVIII, Paragraph 18.2, of the Consent Judgment. Consequently the Consent Judgment and the provisions of Section 3.18 of the RAP collectively serve as the legally enforceable agreement required pursuant to Section 20120b(3) of the NREPA.

3.18.1 Definitions

"Remedial Action Plan" or "RAP" refers to this document, submitted on behalf of the liable party group (LPG), and all other subsequent MDEQ-approved modifications to the RAP.

"Long-Term RAP Costs" means the costs of Operation and Maintenance, oversight, monitoring, and other costs necessary to assure the effectiveness and integrity of the remedial action set forth in the RAP in perpetuity.

"Operation and Maintenance Phase" means the performance of the activities set forth in the Summary Operation, Maintenance and Monitoring Plan found in Appendix C, beginning the date upon which this RAP is approved by the MDEQ.

"Part 201 Administrative Rules" or "Rules" means the administrative rules promulgated under Part 201.

Unless otherwise defined herein or in the Consent Judgment, all other terms used in this RAP, which are defined in Part 3, Definitions, of the NREPA, MCL 324.301; Part 201 of the NREPA; or the Part 201 Administrative Rules, 1990 AACS R 299.5101, *et seq.*, as amended by changes at 2002 Michigan Register 24 that became effective on December 21, 2002, shall have the same meaning in this document as in Parts 3 and 201 of the NREPA, and the Part 201 Administrative Rules.

3.18.2 Performance Standards

The overall performance standard of the RAP is to assure the protection of the public health, safety and welfare, and the environment. The specific performance standards employed by the RAP are as follows:

(a) Prevent unacceptable exposures to groundwater used for potable or domestic use.

(b) Prevent unacceptable direct contact exposures with soil, groundwater, or LNAPL for the LNAPL Assessment and Remediation Area, I27.7 Area, Melting Department Area, Former Railyard, Quench Pit Area, and Former DRA Hillock Area.

(c) Prevent unacceptable inhalation exposures from contaminated soil in the Former UST #7 Area.

(d) Prevent unacceptable inhalation exposures from contaminated soil in the Former CTC Parking Lot East of the Plant, Previous Metal Feedstock Area, Former Railyard Area, and the Parking Lot North of the Buffer Basin.

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(e) Prevent unacceptable direct contact exposure with waste fill material in the former Green Point Landfill, and Type III Landfills.(f) Prevent unacceptable inhalation exposures from contaminated soil along the Saginaw River Boundary and control erosion along the Saginaw River Berm Area.

(g) Prevent unacceptable hazardous substance migration from the former Green Point Landfill in accordance with post-closure operation and maintenance procedures.

(h) Implement groundwater quality monitoring at the Saginaw River Boundary Area, Green Point Landfill, and Former UST 7 Area.

3.18.3 Progress Reports

In addition to the requirements specified in Section XVI of the Consent Judgment (Progress Reports), the annual progress reports will include an assessment and documentation of the integrity of all exposure control mechanisms on which the RAP is dependent (e.g., barriers, permanent markers, etc.), and compliance with land-use restrictions, resource-use restrictions, and institutional controls. If appropriate, the report shall describe any modifications to the RAP that are determined to be necessary to assure the continued effectiveness and integrity of the remedial action.

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3.18.4 Modification

If the MDEQ determines that a modification to the work specified in the approved RAP is necessary to: (a) achieve or maintain the performance standards set forth in Paragraph 3.18.2 of this RAP; (b) assure the effectiveness, integrity, or reliability of the remedial action undertaken pursuant to the RAP; (c) correct a lapse or noncompliance under Paragraph 3.18.5 of this RAP; or (d) otherwise prevent unacceptable exposures to public health, safety, welfare and the environment, the MDEQ may require that such modification be incorporated into the RAP. However, only modifications consistent with the Section VI (Additional Response Activity) of the Consent Judgment may be required. If the necessary modifications are extensive the MDEQ may request submittal of a RAP modification plan proposal for MDEQ review and approval. The RAP may only be modified by written agreement between the Defendants and the MDEQ. Upon MDEQ approval, the Defendants shall perform the response activities in accordance with MDEQ-approved implementation schedules.

3.18.5 Compliance with State and Federal Laws

In addition to the requirements set forth In Section XII (Compliance with Other Laws) of the Consent Judgment, and except as provided under Section 20120a(15) of the NREPA, this RAP does not obviate the Defendants' obligation to obtain and maintain compliance with any permit or authorization required under state or federal laws.

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4. References

ARCADIS BBL, 2007. Letter to Ms. Brenda Brouillet of MDEQ from Ms. Lisa Coffey of ARCADIS BBL regarding Work Plan (Revision 1) for Additional Site Investigation for Remedial Action Plan, GM Saginaw Malleable Iron (SMI) Plant and Green Point Landfill (GPLF) Site, Saginaw, Michigan. July 24, 2007.

ARCADIS BBL, 2007a. Letter to Ms. Susan Kaelber-Matlock of MDEQ from Ms. Lisa Coffey of ARCADIS BBL regarding Workplan (Revision 1) for Additional Site Investigation – Remedial Action Plan, July 24, 2007, Environmental Monitoring Program Annual Report, July 25, 2007, Saginaw Malleable Iron Plant/Green Point Landfill, Consent Judgment No. 98-22686-CE-2. November 28, 2007.

Blasland, Bouck & Lee, Inc. (BBL), 1994. *Geophysical Investigation Report for the Drum Remediation Area*, Saginaw, Michigan, September 1994.

BBL, 1995. *Test Pit Investigation Report*, Saginaw Malleable Iron Plant Property, Green Point Landfill, and Drum Remediation Area, Saginaw, Michigan, August 1995.

BBL, 1995. *LNAPL Assessment and Recovery Remedial Investigation Interim Report*, General Motors Corporation Saginaw Malleable Iron Plant and Delphi Saginaw Steering Systems Plant 2 Properties, November 1995.

BBL, 1997. *Center Street Oil Sheen Supplemental Investigation Report*, General Motors Corporation Saginaw Malleable Iron Plant Property, Green Point Landfill and Drum Remediation Area, Saginaw, Michigan, April 1997.

BBL, 1997. General Motors Corporation Saginaw Malleable Iron Plant, Saginaw, Michigan, *Former UST #7 Area Supplemental Investigation Report*, May 1997.

BBL, 1997. *Interim Response Action Work Plan, General Motors Corporation Saginaw Malleable Iron Plant, Former UST #7 Area*, Saginaw, Michigan, July 1997.

BBL, October 1997a. General Motors Corporation Saginaw Malleable Iron Plant, Green Point Landfill and Drum Remediation Area, Saginaw, Michigan, *Remedial Investigation/Feasibility Study Work Plan*, October 1997; schedule tables revised January 1998. [Note that several draft versions were submitted to the MDNR/MDEQ. This version represents the final MDEQ-approved Work Plan].

BBL, January 1998a. *Final Engineering Design Report, Green Point Landfill*, Saginaw, Michigan, January 1998.

BBL, January 1998b. *LNAPL Assessment and Recovery Report*, General Motors Corporation, Saginaw Malleable Iron Plant and Delphi Saginaw Steering Systems Plant 2 Properties, January 1998.

BBL, April 1998a. *Quench Pit Investigation Report*, GM SMI Plant, April 1998.

BBL, 1998. *Background Groundwater Quality Assessment Report*, October 1998.

BBL, 2000. *Green Point Landfill Cover System Certification Report*, January 2000.

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Richard Kowalski
LFR
Sep 17, 2009 18:39

BBL, 2000. *LNAPL Recovery System Operation and Maintenance Plan*, October 2000.

BBL, 2001. General Motors Corporation, Saginaw Malleable Iron Plant Property, and REALM, Inc. Green Point Landfill and Drum Remediation Area, Saginaw, Michigan *Remedial Investigation Report*, July 5, 2001.

BBL, 2003. General Motors Corporation Saginaw Malleable Iron Plant, Green Point Landfill and Drum Remediation Area, Saginaw, Michigan, *Human Health Evaluation Report*, July 29, 2003.

BBL, 2003. General Motors Corporation Saginaw Malleable Iron Plant, Green Point Landfill and Drum Remediation Area, Saginaw, Michigan, *Feasibility Study Report*, July 29, 2003.

BBL, 2006. Letter to Mr. Allan Brouillet of MDEQ from John D. Schell, Jr., Ph.D. of BBL regarding Human Health Risk Assessment – Revised Draft Remedial Action Plan, GM Saginaw Malleable Iron Plant Property, and REALM Green Point Landfill, Consent Judgment No. 98-22686-CE-2. March 24, 2006.

BBL, 2006a. E-mail to Ms. Susan Kaelber-Matlock of MDEQ from Ms. Lisa Coffey of BBL regarding October 31, 2006 Workplan for Additional Site Investigation, SMI. November 21, 2006.

Coffey, L. (Blasland, Bouck & Lee, Inc.), 2005. Memo to J. Tegen (GM). Re: Excavation of paving and fill placement at the Former Casting Technology Center (CTC) Parking Lot at the GM Saginaw Malleable Iron Plant in Saginaw, Michigan. September 20, 2005.

Conestoga-Rovers & Associates (CRA), 1998a. *Feasibility Analysis*, Saginaw Malleable Iron Plant and Delphi Plant 2, Saginaw, Michigan, May 1998.

Conestoga-Rovers & Associates (CRA), 1997. *Melting Department Area Investigation and Remediation Report*, Saginaw, Michigan, April 1997.

Cummings, T.R. 1989. Natural Ground-Water Quality in Michigan, 1974-87. United States Geological Survey (USGS) Open File Report 89-259, July 1989.

Exponent, 2003. *GM Saginaw Malleable Iron Plant Ecological Risk Assessment Report*, January 2003.

Michigan Department of Environmental Quality (MDEQ), 1999. *Suggested Contents of Part 201 Remedial Action Plans (draft)*, May 1999.

MDEQ, 2000. Letter to Mr. Ed Peterson of GM from Ms. Brenda Brouillet of MDEQ regarding approval of the Green Point Landfill remedial actions as an interim response action, July 19, 2000.

MDEQ, 2004. Remediation and Redevelopment Division *Operational Memorandum No. 1, Part 201 Generic Cleanup Criteria, Part 213 Risk-Based Screening Levels*, December 2004.

MDEQ, 2006. Letter to Ms. Cheryl Hiatt of GM from Mr. Allan Brouillet of MDEQ regarding Human Health Risk Assessment – Revised Draft Remedial Action Plan, Saginaw Malleable Iron Plant/Green Point Landfill, Consent Judgment No. 98-22686-CE-2. February 23, 2006.

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Confidential under FOIA
Richard Kowalski
LFR
Sep 17, 2009 18:39

Confidential under FOIA
Richard Kowalski
LFR
Sep 17, 2009 18:39

MDEQ, 2006a. Letter to Ms. Cheryl Hiatt of GM from Ms. Brenda Brouillet of MDEQ regarding Revised Remedial Action Plan, Saginaw Malleable Iron Plant/Green Point Landfill; Consent Judgment 98-22686-CE-2. May 18, 2006.

MDEQ, 2006b. E-mail to Ms. Lisa Coffey and Mr. David Lipson of BBL from Ms. Susan Kaelber-Matlock of MDEQ regarding GM SMI Semi Annual Groundwater Monitoring Report, Former UST#7 Area, October 31, 2006. December 18, 2006.

MDEQ, 2007. E-mail to Ms. Lisa Coffey of ARCADIS BBL, Ms. Cheryl Hiatt of GM, and Mr. Kent Bainbridge of Waste Management, Inc. from Ms. Susan Kaelber-Matlock of MDEQ regarding Manganese samples in surficial soils west of the SMI facility in Saginaw, MI. June 19, 2007.

MDEQ, 2007a. Letter to Ms. Cheryl Hiatt of GM from Ms. Susan Kaelber-Matlock of MDEQ regarding Workplan (Revision 1) for Additional Site Investigation – Remedial Action Plan, July 24, 2007, Environmental Monitoring Program Annual Report, July 25, 2007, Saginaw Malleable Iron Plant/Green Point Landfill, Consent Judgment No. 98-22686-CE-2. October 16, 2007.

RMT, Inc. 1980. *Hydrogeologic Investigation: In-Field Conditions of the Existing Onsite Disposal Area at the General Motors Central Foundry Division*, Saginaw Plant, November 1980.

United States Environmental Protection Agency (USEPA), 1992. *Supplemental Guidance to RAGS: Calculating the Concentration Term*. Office of Solid Waste and Emergency Response Washington DC. Publication 9285.7-081. May 1992.

USEPA, 2001. *Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites*, 2001.

United States Geological Survey (USGS), 1980. *Chemical and Physical Characteristics of Natural Groundwaters in Michigan: A Preliminary Report,* August 1980.

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TABLE 1-1
SUMMARY OF SITE-SPECIFIC CONDITIONS AND CLEANUP CRITERIA THAT TRIGGER RESPONSE ACTION*

GENERAL MOTORS CORPORATION
SAGINAW MALLEABLE IRON PLANT PROPERTY,
AND REALM GREEN POINT LANDFILL
AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Constituent(s) Triggering Response Action (*)	Exposure Point Concentration	Potential Exposure and Relevant (**) Exposure Pathway	Generic MDEQ Criteria Exceeded	Applicable Site-Specific Cleanup Criteria
LNAPL Assessment and Remediation Area	Lead (surface)	1,320 mg/kg (1)	Dermal contact (production or maintenance worker, future workers)	IDC/Comm III and IV DC	1,610 mg/kg
	Lead (subsurface)	1,780 mg/kg (1)	Dermal contact (intrusive/construction worker)	IDC/Comm III and IV DC	1,982 mg/kg
	LNAPL	---	---	---	---
Quench Pit Area	LNAPL	---	---	---	---
Former UST #7 Area	Benzene (subsurface)	21 J mg/kg (1)	Indoor air inhalation (unlikely due to absence of buildings)	ISVIIC	8.4 mg/kg
I27.7 Area	PCBs (below concrete plant floor)	4,900 mg/kg (1)	Dermal contact (unlikely due to physical barrier)	IDC	60 mg/kg
Melting Department Area	PCBs (below concrete plant floor)	650 mg/kg (1)	Dermal contact (unlikely due to physical barrier)	IDC	60 mg/kg
Previous Metal Feedstock Area	Manganese (surface)	6,140 mg/kg (1)	Particulate soil inhalation (maintenance worker)	IPSIC	2,300 mg/kg
	Manganese (soil column)	7,410 mg/kg (2)	Particulate soil inhalation (intrusive/construction worker)	IPSIC	12,000 mg/kg
Former Railyard Area	Lead (surface)	1,370 mg/kg (1)	Dermal contact (Maintenance worker, future workers)	IDC/Comm III and IV DC	1,610 mg/kg
	Manganese (surface)	3,540 mg/kg (2)	Particulate soil inhalation (maintenance worker)	IPSIC	2,300 mg/kg
	Manganese (soil column)	3,770 mg/kg (2)	Particulate soil inhalation (intrusive/construction worker)	IPSIC	12,000 mg/kg

See Notes on Page 2.

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TABLE 1-1
SUMMARY OF SITE-SPECIFIC CONDITIONS AND CLEANUP CRITERIA THAT TRIGGER RESPONSE ACTION*

GENERAL MOTORS CORPORATION
SAGINAW MALLEABLE IRON PLANT PROPERTY,
AND REALM GREEN POINT LANDFILL
AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Constituent(s) Triggering Response Action (*)	Exposure Point Concentration	Potential Exposure and Relevant (**) Exposure Pathway	Generic MDEQ Criteria Exceeded	Applicable Site-Specific Cleanup Criteria
Saginaw River Boundary	Manganese (surface)	2,330 mg/kg (2)	Particulate soil inhalation (maintenance worker)	IPSIC	2,300 mg/kg
	Manganese (soil column)	5,800 mg/kg (2)	Particulate soil inhalation (intrusive/construction worker)	IPSIC	12,000 mg/kg
Green Point Landfill	Integrity of the landfill	---	---	---	---
Type III Landfills	Integrity of the landfill	---	---	---	---
Drum Remediation Area/Former Hillock	Vinyl Chloride (groundwater)	2,300 ug/L (1)	Dermal contact with impacted groundwater (intrusive/ construction worker)	GCC	2,923 ug/L
Former CTC Parking Lot East of Main Plant	Manganese (under soil and grass barrier)	11,600 mg/kg (1)	Particulate soil inhalation (intrusive/construction worker)	IPSIC	12,000 mg/kg
Parking Lot North of Buffer Basin	Manganese (under parking lot)	11,900 mg/kg (1)	Particulate soil inhalation (intrusive/construction worker)	IPSIC	12,000 mg/kg

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Notes:
This table has been prepared based on information presented in the *Feasibility Study Report* (BBL, July 2003) (FS Report), *Human Health Evaluation Report* (BBL, July 2003) (HHE Report), *Ecological Risk Assessment Report* (Exponent, January 2003) (ERA Report), Supplemental Site data that has been submitted to the MDEQ in monthly reports, and *Human Health Addendum* (ARCADIS, July 2008).

* = in addition to the site-wide industrial use limitation.

** = Exposure pathway is relevant only if the following four elements exist:

- a source and mechanism of chemical release to the environment;
- a relevant environmental transport medium;
- a relevant point of exposure to the chemical present in the medium; and
- a route of uptake at the exposure point.

1 = maximum concentration.

2 = 95% UCL concentration.

Acronyms/Abbreviations:

IDC – Industrial and Commercial II Direct Contact.
IGVIIC – Industrial Groundwater Volatilization Indoor Air Inhalation Criteria.
ISVIIC – Industrial Soil Volatilization to Indoor Air Inhalation Criteria.
IPSIC – Industrial Particulate Soil Inhalation Criteria.
LNAPL – Light Non-Aqueous Phase Liquid.
mg/kg – milligrams/per kilogram
PCBs – Polychlorinated Biphenyls.
RA – Remedial Action.
SSCC – Site-Specific Cleanup Criteria.
ug/L – micrograms per liter.
UST – Underground Storage Tank.
--- – Not applicable.

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TABLE 2-1

SUMMARY OF SITE SOIL DATA THAT EXCEED GENERIC MDEQ CRITERIA[1]

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples collected on:	Depth Start (ft)	Depth End (ft)	Analyte	Detected Concentration (mg/kg)	Comments
Buffer Basin	SB-338	IPSIC	6/26/1995	6	8	Manganese	2,780*	Excavated; samples were collected to characterize for disposal soil excavated in conjunction with buffer basin construction.
Buffer Basin	SB-339	RDC	6/26/1995	2	4	Arsenic	13.4	Excavated; samples were collected to characterize for disposal soil excavated in conjunction with buffer basin construction.
Buffer Basin	SB-340	IPSIC, RPSIC	6/26/1995	2	4	Manganese	5,800*	Excavated; samples were collected to characterize for disposal soil excavated in conjunction with buffer basin construction.
Buffer Basin	SB-345	IPSIC, RPSIC	6/27/1995	2	4	Manganese	3,420*	Excavated; samples were collected to characterize for disposal soil excavated in conjunction with buffer basin construction.
Buffer Basin	SB-346	IPSIC	6/27/1995	2	4	Manganese	2,370*	Excavated; samples were collected to characterize for disposal soil excavated in conjunction with buffer basin construction.
Buffer Basin	SB-347	IPSIC	6/27/1995	2	4	Manganese	2,470*	Excavated; samples were collected to characterize for disposal soil excavated in conjunction with buffer basin construction.
Buffer Basin	SB-350	IPSIC, RPSIC	6/27/1995	4	6	Manganese	5,690*	Excavated; samples were collected to characterize for disposal soil excavated in conjunction with buffer basin construction.
Buffer Basin	SB-353	RDC	6/28/1995	0	2	Arsenic	18.4	Excavated; samples were collected to characterize for disposal soil excavated in conjunction with buffer basin construction.
Buffer Basin	SB-353	RDC	6/28/1995	0	2	Iron	206,000	Excavated; samples were collected to characterize for disposal soil excavated in conjunction with buffer basin construction.
Parking Lot Area North of Buffer Basin	SB-355	IPSIC	6/28/1995	2	4	Manganese	3,290*	Excavated; samples were collected to characterize for disposal soil excavated in conjunction with buffer basin construction.
Parking Lot Area North of Buffer Basin	BH10	RPSIC, IPSIC	3/6/2007	0	2	Manganese	9200	Addressed by restrictive covenant.
Parking Lot Area North of Buffer Basin	BH10	RPSIC, IPSIC	3/6/2007	2	4	Manganese	11900	Addressed by restrictive covenant.
Parking Lot Area North of Buffer Basin	BH9	RDC	3/6/2007	0	2	Benzo(a)pyrene	6.6	Addressed by restrictive covenant.
Parking Lot Area North of Buffer Basin	SB-342	IPSIC, RPSIC	6/26/1995	2	4	Manganese	15,900*	Excavated; samples were collected to characterize for disposal soil excavated in conjunction with buffer basin construction.
Parking Lot Area North of Buffer Basin	SB-342	IPSIC, RPSIC	6/26/1995	4	6	Manganese	5,410*	Excavated; samples were collected to characterize for disposal soil excavated in conjunction with buffer basin construction.
Drum Remediation Area	SB-389	IPSIC	8/11/2000	0	0.5	Manganese	1,930 J	Southern property which is located south and west of green point landfill - 95% UCL = 956 mg/kg (HHE Page 4-18).
Drum Remediation Area	SB-393	IPSIC	8/11/2000	0	0.5	Manganese	7,840 J	Southern property which is located south and west of green point landfill - 95% UCL = 956 mg/kg (HHE Page 4-18).
Drum Remediation Area	SB-399	IPSIC	8/11/2000	0	0.5	Manganese	3,550 J	Southern property which is located south and west of green point landfill - 95% UCL = 956 mg/kg (HHE Page 4-18).
Drum Remediation Area	TP-12	RDC	3/23/1995	7.8	8	Antimony	224	Soils were removed in February 1997 and placed in Green Point Landfill (RI Page 4-9).
Drum Remediation Area	TP-12	RDC	3/23/1995	7.8	8	Arsenic	28.9	Soils were removed in February 1997 and placed in Green Point Landfill (RI Page 4-9).

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples collected on:	Depth Start (ft)	Depth End (ft)	Analyte	Detected Concentration (mg/kg)	Comments
Drum Remediation Area	TP-12	IDC	3/23/1995	7.8	8	Benzo(a)pyrene	17 J	Soils were removed in February 1997 and placed in Green Point Landfill (RI Page 4-9).
Drum Remediation Area	TP-12	RDC	3/23/1995	7.8	8	Benzo(a)pyrene	17 J	Soils were removed in February 1997 and placed in Green Point Landfill (RI Page 4-9).
Drum Remediation Area	TP-12	IPSIC	3/23/1995	7.8	8	Chromium (Total)	321	Soils were removed in February 1997 and placed in Green Point Landfill (RI Page 4-9).
Drum Remediation Area	TP-12	IDC, RDC	3/23/1995	7.8	8	Lead	1,810	Soils were removed in February 1997 and placed in Green Point Landfill (RI Page 4-9).
Drum Remediation Area	TP-12	IPSIC, RPSIC	3/23/1995	7.8	8	Manganese	3,670 J	Soils were removed in February 1997 and placed in Green Point Landfill (RI Page 4-9).
Drum Remediation Area	TP-12	IDC, RDC	3/23/1995	7.8	8	Total Aroclors	21	Soils were removed in February 1997 and placed in Green Point Landfill (RI Page 4-9).
Drum Remediation Area	TP-2	RDC	3/23/1995	8	8.5	Arsenic	30	Soils were removed in February 1997 and placed in Green Point Landfill (RI Page 4-9).
Drum Remediation Area	TP-2	IDC, RDC	3/23/1995	8	8.5	Benzo(a)anthracene	630	Soils were removed in February 1997 and placed in Green Point Landfill (RI Page 4-9).
Drum Remediation Area	TP-2	IDC, RDC	3/23/1995	8	8.5	Benzo(a)pyrene	600	Soils were removed in February 1997 and placed in Green Point Landfill (RI Page 4-9).
Drum Remediation Area	TP-2	IDC, RDC	3/23/1995	8	8.5	Benzo(b)fluoranthene	680	Soils were removed in February 1997 and placed in Green Point Landfill (RI Page 4-9).
Drum Remediation Area	TP-2	RDC	3/23/1995	8	8.5	Benzo(k)fluoranthene	230	Soils were removed in February 1997 and placed in Green Point Landfill (RI Page 4-9).
Drum Remediation Area	TP-2	IDC, RDC	3/23/1995	8	8.5	Dibenz(a,h)anthracene	87	Soils were removed in February 1997 and placed in Green Point Landfill (RI Page 4-9).
Drum Remediation Area	TP-2	IDC, RDC	3/23/1995	8	8.5	Indeno(1,2,3-cd)pyrene	330	Soils were removed in February 1997 and placed in Green Point Landfill (RI Page 4-9).
Drum Remediation Area	TP-2	RDC	3/23/1995	8	8.5	Lead	532	Soils were removed in February 1997 and placed in Green Point Landfill (RI Page 4-9).
Drum Remediation Area	TP-2	IPSIC	3/23/1995	8	8.5	Manganese	2,360 J	Soils were removed in February 1997 and placed in Green Point Landfill (RI Page 4-9).
Drum Remediation Area	TP-2	IVSICI, RVSICI	3/23/1995	8	8.5	Phenanthrene	630	Soils were removed in February 1997 and placed in Green Point Landfill (RI Page 4-9).
Drum Remediation Area	TP-6	RDC	3/22/1995	8	8.5	Arsenic	15.7	Soils were removed in February 1997 and placed in Green Point Landfill (RI Page 4-9).
Drum Remediation Area	TP-6	IDC, ISVIA, RDC, RSVIA	3/22/1995	8	8.5	Ethylbenzene	170	Soils were removed in February 1997 and placed in Green Point Landfill (RI Page 4-9).
Drum Remediation Area	TP-6	IDC, RDC	3/22/1995	8	8.5	Lead	3,070	Soils were removed in February 1997 and placed in Green Point Landfill (RI Page 4-9).
Drum Remediation Area	TP-6	IPSIC	3/22/1995	8	8.5	Manganese	2,810 J	Soils were removed in February 1997 and placed in Green Point Landfill (RI Page 4-9).
Drum Remediation Area	TP-6	RDC	3/22/1995	8	8.5	Total PCBs	7.9	Soils were removed in February 1997 and placed in Green Point Landfill (RI Page 4-9).
Drum Remediation Area	TP-6	IDC, ISVIA, RDC, RSVIA	3/22/1995	8	8.5	Xylenes, Total	1,300	Soils were removed in February 1997 and placed in Green Point Landfill (RI Page 4-9).
Former UST # 7	BBL-MW3	RSVIA	5/2/1996	6	8	Benzene	7.3 J	Addressed by site specific evaluation (HHE Page 6-15 thru 16).
Former UST # 7	BBL-SB3	ISVIA, RVSICI, RSVIA	5/7/1996	8	10	Benzene	21 J	Addressed by site specific evaluation (HHE Page 6-15 thru 16).

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples collected on:	Depth Start (ft)	Depth End (ft)	Analyte	Detected Concentration (mg/kg)	Comments
Former UST # 7	BBL-SB3	RSVIA	5/7/1996	8	10	Chloromethane	2.5 J	Addressed by site specific evaluation (HHE Page 6-15 thru 16).
Former UST # 7	BBL-SB4	RSVIA	5/7/1996	0	2	Benzene	2.7 J	Addressed by site specific evaluation (HHE Page 6-15 thru 16).
Former UST # 7	BBL-SB4	RSVIA	5/7/1996	8	10	Benzene	3	Addressed by site specific evaluation (HHE Page 6-15 thru 16).
I27.7 Area	BH01-98	IDC	NA	1	3	Total PCBs	100	Addressed by restrictive covenant. The concrete plant floor serves as a barrier.
I27.7 Area	BH01-98	RDC	NA	1	3	Total PCBs	100	Addressed by restrictive covenant. The concrete plant floor serves as a barrier.
I27.7 Area	BH01-98	IDC	NA	5	7	Total PCBs	35	Addressed by restrictive covenant. The concrete plant floor serves as a barrier.
I27.7 Area	BH01-98	RDC	NA	5	7	Total PCBs	35	Addressed by restrictive covenant. The concrete plant floor serves as a barrier.
I27.7 Area	BH03-98	IDC	NA	5	6.5	Total PCBs	29	Addressed by restrictive covenant. The concrete plant floor serves as a barrier.
I27.7 Area	BH03-98	RDC	NA	5	6.5	Total PCBs	29	Addressed by restrictive covenant. The concrete plant floor serves as a barrier.
I27.7 Area	BH04-98	IDC	NA	1	3	Total PCBs	42	Addressed by restrictive covenant. The concrete plant floor serves as a barrier.
I27.7 Area	BH04-98	RDC	NA	1	3	Total PCBs	42	Addressed by restrictive covenant. The concrete plant floor serves as a barrier.
I27.7 Area	BH04-98	IDC	NA	7	7.25	Total PCBs	19.8	Addressed by restrictive covenant. The concrete plant floor serves as a barrier.
I27.7 Area	BH04-98	RDC	NA	7	7.25	Total PCBs	19.8	Addressed by restrictive covenant. The concrete plant floor serves as a barrier.
I27.7 Area	BH05-98	IDC, IVSCI	NA	1	3	Total PCBs	4900	Addressed by restrictive covenant. The concrete plant floor serves as a barrier.
I27.7 Area	BH05-98	RSVIA	NA	1	3	Total PCBs	4900	Addressed by restrictive covenant. The concrete plant floor serves as a barrier.
I27.7 Area	BH05-98	RDC	NA	1	3	Total PCBs	4900	Addressed by restrictive covenant. The concrete plant floor serves as a barrier.
I27.7 Area	BH05-98	RVSICI	NA	1	3	Total PCBs	4900	Addressed by restrictive covenant. The concrete plant floor serves as a barrier.
I27.7 Area	BH06-98	IDC	NA	1	3	Total PCBs	93	Addressed by restrictive covenant. The concrete plant floor serves as a barrier.
I27.7 Area	BH06-98	RDC	NA	1	3	Total PCBs	93	Addressed by restrictive covenant. The concrete plant floor serves as a barrier.
I27.7 Area	BH07-98	IDC, IVSCI	NA	13	15	Total PCBs	1500	Addressed by restrictive covenant. The concrete plant floor serves as a barrier.
I27.7 Area	BH07-98	RDC	NA	13	15	Total PCBs	1500	Addressed by restrictive covenant. The concrete plant floor serves as a barrier.
I27.7 Area	BH07-98	RVSICI	NA	13	15	Total PCBs	1500	Addressed by restrictive covenant. The concrete plant floor serves as a barrier.
LNAPL area	SB-03	RDC	8/23/2001	4.7	6.7	Arsenic	9.3	Addressed by restrictive covenant.
LNAPL area	SB-362	IDC, RDC	9/28/1995	0	2	Lead	1,020	Addressed by site specific evaluation (HHE Page 6-16; site specific value = 1,780 mg/kg).
LNAPL area	SB-362	RDC	9/28/1995	4	6	Arsenic	23.6	Addressed by restrictive covenant.
LNAPL area	SB-362	RDC	9/28/1995	0	2	Total PCBs	9.6	Addressed by restrictive covenant.

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples collected on:	Depth Start (ft)	Depth End (ft)	Analyte	Detected Concentration (mg/kg)	Comments
LNAPL area	SB-363	IDC, RDC	9/28/1995	0	2	Lead	1,320	Addressed by site specific evaluation (HHE Page 6-16; site specific value = 1,780 mg/kg).
LNAPL area	SB-363	IDC, RDC	9/28/1995	4	6	Lead	1,780	Addressed by site specific evaluation (HHE Page 6-16; site specific value = 1,780 mg/kg); direct contact is unlikely at 4-6 ft.
LNAPL area	SB-363	RDC	9/28/1995	4	6	Copper	44,700	Addressed by restrictive covenant.
LNAPL area	SB-363	RDC	9/28/1995	0	2	Total PCBs	5.5	Addressed by restrictive covenant.
Melting Department	S1155	RDC	6/17/1996	0	0.5	Total PCBs	10	Addressed by restrictive covenant.
Melting Department	S1157	IDC, RDC	6/20/1996	0	0.5	Total PCBs	91 J	Soils samples containing PCBs were excavated in July 1996; confirmatory sampling indicated soils exceeding generic values were removed. (Melting Department Area Investigation and Remediation Report, CRA 1997).
Melting Department	S1158	IDC, RDC	6/20/1996	0.5	1	Total PCBs	19	Soils samples containing PCBs were excavated in July 1996; confirmatory sampling indicated soils exceeding generic values were removed. (Melting Department Area Investigation and Remediation Report, CRA 1997).
Melting Department	S1159	RDC	6/20/1996	1	2	Total PCBs	8.3	Soils samples containing PCBs were excavated in July 1996; confirmatory sampling indicated soils exceeding generic values were removed. (Melting Department Area Investigation and Remediation Report, CRA 1997).
Melting Department	S1160	IDC, RDC	6/20/1996	0	0.5	Total PCBs	17	Soils samples containing PCBs were excavated in July 1996; confirmatory sampling indicated soils exceeding generic values were removed. (Melting Department Area Investigation and Remediation Report, CRA 1997).
Melting Department	S1161	RDC	6/20/1996	0.5	1	Total PCBs	5.6	Soils samples containing PCBs were excavated in July 1996; confirmatory sampling indicated soils exceeding generic values were removed. (Melting Department Area Investigation and Remediation Report, CRA 1997).
Melting Department	S1163	IDC, RDC	6/20/1996	0	0.5	Total PCBs	55 J	Soils samples containing PCBs were excavated in July 1996; confirmatory sampling indicated soils exceeding generic values were removed. (Melting Department Area Investigation and Remediation Report, CRA 1997).
Melting Department	S1164	IDC, RDC	6/20/1996	0.5	1	Total PCBs	120	Soils samples containing PCBs were excavated in July 1996; confirmatory sampling indicated soils exceeding generic values were removed. (Melting Department Area Investigation and Remediation Report, CRA 1997).
Melting Department	S1166	IDC, RDC	6/20/1996	0	0.5	Total PCBs	96	Soils samples containing PCBs were excavated in July 1996; confirmatory sampling indicated soils exceeding generic values were removed. (Melting Department Area Investigation and Remediation Report, CRA 1997).
Melting Department	S1168	IDC, RDC	6/20/1996	1	2	Total PCBs	76	Soils samples containing PCBs were excavated in July 1996; confirmatory sampling indicated soils exceeding generic values were removed. (Melting Department Area Investigation and Remediation Report, CRA 1997).
Melting Department	S1173	RDC	6/20/1996	0.5	1	Total PCBs	6.7	Soils samples containing PCBs were excavated in July 1996; confirmatory sampling indicated soils exceeding generic values were removed. (Melting Department Area Investigation and Remediation Report, CRA 1997).

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SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples collected on:	Depth Start (ft)	Depth End (ft)	Analyte	Detected Concentration (mg/kg)	Comments
Melting Department	S1174	RDC	6/20/1996	1	2	Total PCBs	5.8	Soils samples containing PCBs were excavated in July 1996; confirmatory sampling indicated soils exceeding generic values were removed. (Melting Department Area Investigation and Remediation Report, CRA 1997).
Melting Department	S1175	IDC, RDC	6/20/1996	0	0.5	Total PCBs	50	Soils samples containing PCBs were excavated in July 1996; confirmatory sampling indicated soils exceeding generic values were removed. (Melting Department Area Investigation and Remediation Report, CRA 1997).
Melting Department	S1175	IDC, RDC	6/20/1996	0	0.5	Total PCBs	50	Soils samples containing PCBs were excavated in July 1996; confirmatory sampling indicated soils exceeding generic values were removed. (Melting Department Area Investigation and Remediation Report, CRA 1997).
Melting Department	S1176	IDC, RDC	6/20/1996	0.5	1	Total PCBs	220	Soils samples containing PCBs were excavated in July 1996; confirmatory sampling indicated soils exceeding generic values were removed. (Melting Department Area Investigation and Remediation Report, CRA 1997).
Melting Department	S1177	RVSICI, RDC, IDC	6/20/1996	1	2	Total PCBs	640	Soils samples containing PCBs were excavated in July 1996; confirmatory sampling indicated soils exceeding generic values were removed. (Melting Department Area Investigation and Remediation Report, CRA 1997).
Melting Department	S1178	IDC, RDC	6/20/1996	0	0.5	Total PCBs	26	Soils samples containing PCBs were excavated in July 1996; confirmatory sampling indicated soils exceeding generic values were removed. (Melting Department Area Investigation and Remediation Report, CRA 1997).
Melting Department	S1179	IDC, RDC	6/20/1996	0.5	1	Total PCBs	18	Soils samples containing PCBs were excavated in July 1996; confirmatory sampling indicated soils exceeding generic values were removed. (Melting Department Area Investigation and Remediation Report, CRA 1997).
Melting Department	S1180	IDC, RDC	6/20/1996	1	2	Total PCBs	40	Soils samples containing PCBs were excavated in July 1996; confirmatory sampling indicated soils exceeding generic values were removed. (Melting Department Area Investigation and Remediation Report, CRA 1997).
Melting Department	S1182	RDC	6/20/1996	0.5	1	Total PCBs	4.8	Soils samples containing PCBs were excavated in July 1996; confirmatory sampling indicated soils exceeding generic values were removed. (Melting Department Area Investigation and Remediation Report, CRA 1997).
Melting Department	S1188	IDC, RDC	6/15/1996	3	5	Total PCBs	41	Addressed by restrictive covenant. The concrete plant floor serves as a barrier.
Melting Department	S2031	RDC	9/6/1996	0	0.5	Total PCBs	7.5	Soils samples containing PCBs were excavated in July 1996; confirmatory sampling indicated soils exceeding generic values were removed. (Melting Department Area Investigation and Remediation Report, CRA 1997).
Melting Department	S2032	RVSICI, RDC, IDC	9/6/1996	0	0.5	Total PCBs	360	Soils samples containing PCBs were excavated in July 1996; confirmatory sampling indicated soils exceeding generic values were removed. (Melting Department Area Investigation and Remediation Report, CRA 1997).

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples collected on:	Depth Start (ft)	Depth End (ft)	Analyte	Detected Concentration (mg/kg)	Comments
Melting Department	S2033	RVSICI, RDC, IDC	9/6/1996	0	0.5	Total PCBs	650	Soils samples containing PCBs were excavated in July 1996; confirmatory sampling indicated soils exceeding generic values were removed. (Melting Department Area Investigation and Remediation Report, CRA 1997).
Melting Department	S2034	IDC, RDC	9/6/1996	0	0.5	Total PCBs	27	Soils samples containing PCBs were excavated in July 1996; confirmatory sampling indicated soils exceeding generic values were removed. (Melting Department Area Investigation and Remediation Report, CRA 1997).
Melting Department	S2036	RDC	9/6/1996	0	0.5	Total PCBs	12.7	Soils samples containing PCBs were excavated in July 1996; confirmatory sampling indicated soils exceeding generic values were removed. (Melting Department Area Investigation and Remediation Report, CRA 1997).
Melting Department	S3043	RDC	11/27/1996	0	0.5	Total PCBs	6.3	Addressed by restrictive covenant. The concrete plant floor serves as a barrier.
Metal Feedstock area	SB-304	IPSIC, RPSIC	2/8/1995	0	1	Manganese	6,140	Addressed by site specific evaluation (HHE Page 6-14); site specific value = 12,000 mg/kg; UCL = 6,140 mg/kg.
Metal Feedstock area	SB-304	IPSIC, RPSIC	2/8/1995	2	4	Manganese	9,190	Addressed by restrictive covenant.
Metal Feedstock area	SB-305	IPSIC, RPSIC	2/8/1995	2	4	Manganese	6,820	Addressed by restrictive covenant.
Metal Feedstock area	SB-305	IPSIC, RPSIC	2/8/1995	6	8	Manganese	3,830	Addressed by restrictive covenant.
North of DRA	SB-388	IPSIC	7/25/2000	0	0.5	Manganese	2,940 J	Addressed by site specific evaluation (HHE Page 6-15); site specific value = 4,504 mg/kg.
Parking lot east of main plant	PL-1	IPSIC, RPSIC, RDC	8/10/2001	0.75	1.21	Manganese	11,600	Addressed by restrictive covenant.
Parking lot east of main plant	PL-2	IPSIC, RPSIC	8/10/2001	0.75	1.25	Manganese	6600	Addressed by restrictive covenant.
Parking lot east of main plant	PL-2	IPSIC, RPSIC	8/10/2001	0.75	1.25	Manganese	7,700	Addressed by restrictive covenant.
Parking lot east of main plant	PL-3	IPSIC, RPSIC	8/10/2001	0.67	1.67	Manganese	10,700	Addressed by restrictive covenant.
Parking lot east of main plant	PL-4	IPSIC	8/10/2001	0.75	1.5	Manganese	1,800	Addressed by restrictive covenant.
Railyard Area	BH11	IPSIC	3/6/2007	0	2	Manganese	2540	Addressed by restrictive covenant.
Railyard Area	BH12	RPSIC, IPSIC	3/6/2007	0	2	Chromium Total	918 [572]	Addressed by restrictive covenant.
Railyard Area	BH12	RPSIC, IPSIC	3/6/2007	0	2	Manganese	7380 [6770]	Addressed by restrictive covenant.
Railyard Area	BH12	RPSIC, IPSIC	3/6/2007	0	2	Manganese	6770	Addressed by restrictive covenant.
Railyard Area	BH12	RDC	3/6/2007	0	2	Total PCBs	11	Addressed by restrictive covenant.
Railyard area	RS-09	IPSIC	8/19/2005	0	1	Manganese	1,560	Addressed by restrictive covenant.
Railyard area	RS-11	IPSIC, RPSIC	8/19/2005	0	1	Manganese	3, 650	Addressed by restrictive covenant.
Railyard area	RS-12	IPSIC	8/22/2005	0	1	Manganese	2,310	Addressed by restrictive covenant.
Railyard area	RS-13	IPSIC	8/23/2005	0	1	Manganese	1,530/2,360	Addressed by restrictive covenant.
Railyard area	RS-14	IPSIC	8/24/2005	0	1	Manganese	2,380	Addressed by restrictive covenant.
Railyard area	RS-17	IPSIC, RPSIC	8/27/2005	0	1	Manganese	5,470	Addressed by restrictive covenant.
Railyard area	RS-2	RDC	6/13/1995	0	1	Arsenic	11.8	Addressed by restrictive covenant.
Railyard area	RS-2	IPSIC	6/13/1995	0	1	Chromium (Total)	1,110	Sample collected in August 2005 from same location for total chromium (Cr) and Cr VI analysis; no Cr VI detected and total concentrations are below Cr III criteria.
Railyard area	RS-2	RDC	6/13/1995	0	1	Lead	530 J	Addressed by restrictive covenant.
Railyard area	RS-2	IPSIC, RPSIC	6/13/1995	0	1	Manganese	3,320 J	Addressed by site specific evaluation (HHE Page 6-15); site specific value = 12,000 mg/kg.
Railyard area	RS-2-4	RDC	6/10/1996	0	1	Lead	456 J	Addressed by restrictive covenant.
Railyard area	RS-2-5	RDC	6/10/1996	0	1	Lead	769 J	Addressed by restrictive covenant.
Railyard area	RS-2-6	IDC, RDC	6/10/1996	0	1	Lead	1,370 J	Addressed by site specific evaluation (HHE Page 6-15); site specific value = 1,602 mg/kg.

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TABLE 2-1

SUMMARY OF SITE SOIL DATA THAT EXCEED GENERIC MDEQ CRITERIA[1]

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples collected on:	Depth Start (ft)	Depth End (ft)	Analyte	Detected Concentration (mg/kg)	Comments
Railyard area	RS-3	IPSIC	6/13/1995	0	1	Chromium (Total)	273	Sample collected in August 2005 from same location for total chromium (Cr) and Cr VI analysis; no Cr VI detected and total concentrations are below Cr III criteria.
Railyard area	RS-3	IPSIC, RPSIC	6/13/1995	0	1	Manganese	5,030 J	Addressed by site specific evaluation (HHE Page 6-15); site specific value = 12,000 mg/kg.
Railyard area	RS-3	RDC	6/13/1995	0	1	Total PCBs	6.9	Addressed by restrictive covenant.
Railyard area	RS-5	RDC	6/13/1995	0	1	Arsenic	31.1 J	Addressed by restrictive covenant.
Railyard area	RS-5	IDC, RDC	6/13/1995	0	1	Total Aroclors	55	Surface soils containing PCBs were removed July 1998 (HHE Page 4-20).
Railyard area	RS-5-4	RDC	6/10/1996	0	1	Total PCBs	4.4 J	Addressed by restrictive covenant.
Railyard area	RS-5-6	RDC	6/10/1996	0	1	Total PCBs	4.2 J	Addressed by restrictive covenant.
Railyard area	RS-6	IPSIC	6/13/1995	0	1	Manganese	2,020	Addressed by site specific evaluation (HHE Page 6-15); site specific value = 12,000 mg/kg.
Railyard area	RS-6	RDC	6/13/1995	0	1	Total PCBs	7	Addressed by restrictive covenant.
Railyard area	RS-8	RDC	6/13/1995	0	1	Arsenic	8.98 J	Addressed by restrictive covenant.
Railyard area	RS-8	IPSIC	6/13/1995	0	1	Manganese	2,060	Addressed by site specific evaluation (HHE Page 6-15); site specific value = 12,000 mg/kg.
Railyard area	RS-8	RDC	6/13/1995	0	1	Total PCBs	5.3	Addressed by restrictive covenant.
River Berm	SB-377	IPSIC	7/25/2000	0.5	1	Manganese	3,510	Addressed by restrictive covenant.
River Berm	SB-377	IPSIC	7/25/2000	0.5	1	Manganese	1,690 J	Addressed by site specific evaluation (HHE Page 6-15); site specific value = 2,300 mg/kg.
River Berm	SB-377	RPSIC	7/25/2000	0.5	1	Manganese	3,510	Addressed by restrictive covenant.
River Berm	SB-378	IPSIC	7/25/2000	0.5	1	Chromium (Total)	245	Value is equal to the generic screening value.
River Berm	SB-378	IPSIC, RPSIC	7/25/2000	0.5	1	Manganese	23,100	Addressed by site specific evaluation (HHE Page 6-15); soils (0-0.5 feet) were excavated in August and September 2004 (FS Page 8-3).
River Berm	SB-378 Expanded Floor of Excavation	IPSIC, RPSIC	9/22/2005	2	3	Manganese	21,500	Addressed by restrictive covenant.
River Berm	SB-378 Expanded South Floor of Excavation	IPSIC, RPSIC	9/22/2005	2	3	Manganese	13,600	Addressed by restrictive covenant.
River Berm	SB-378 North Floor of Excavation	IPSIC, RPSIC, RDC	9/22/2005	2	3	Manganese	26,600	Addressed by restrictive covenant.
River Berm	SB-378 Northeast Wall of Excavation	IPSIC	9/13/2004	0	1	Manganese	2,350	Addressed by restrictive covenant.
River Berm	SB-378 South Wall of Excavation	IPSIC	9/13/2004	0	1	Manganese	1,830	Addressed by restrictive covenant.
River Berm	SB-379	IPSIC	7/25/2000	0.5	1	Manganese	2,250	Addressed by site specific evaluation (HHE Page 6-15); site specific value = 2,300 mg/kg.
River Berm	SB-380	IPSIC	7/25/2000	0	0.5	Manganese	1,950	Addressed by site specific evaluation (HHE Page 6-15); soils (0-0.5) were excavated in September 2004 (FS Page 8-3 and RAP).
River Berm	SB-380	IPSIC, RPSIC	7/25/2000	0.5	1	Manganese	24,500	Addressed by site specific evaluation (HHE Page 6-15); soils (0-0.5) were excavated in September 2004 (FS Page 8-3 and RAP).
River Berm	SB-380 North East Wall of Excavation	IPSIC	8/30/2005	0	1	Manganese	688	Addressed by restrictive covenant.
River Berm	SB-380 North Floor of Excavation	IPSIC, RPSIC	9/22/2005	2	3	Manganese	16,900	Addressed by restrictive covenant.
River Berm	SB-380 North Floor of Excavation	IPSIC, RPSIC	9/22/2005	2	3	Manganese	13,200	Addressed by restrictive covenant.
River Berm	SB-380 South Wall of Excavation	IPSIC	9/13/2005	0	1	Manganese	2,710	Addressed by restrictive covenant.
River Berm	SB-380 South Wall of Excavation	IPSIC, RPSIC	9/22/2005	2	3	Manganese	17,200	Addressed by restrictive covenant.
River Berm	SB-381	IPSIC	7/25/2000	0	0.5	Manganese	3,040	Addressed by site specific evaluation (HHE Page 6-15); soils (0-0.5) were excavated in September 2004 (FS Page 8-3 and RAP).

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TABLE 2-1

SUMMARY OF SITE SOIL DATA THAT EXCEED GENERIC MDEQ CRITERIA[1]

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples collected on:	Depth Start (ft)	Depth End (ft)	Analyte	Detected Concentration (mg/kg)	Comments
River Berm	SB-381	IPSIC	7/25/2000	0.5	1	Chromium (Total)	324	Addressed by site specific evaluation (HHE Page 6-15); soils (0-0.5) were excavated in September 2004 (FS Page 8-3 and RAP).
River Berm	SB-381	IPSIC, RPSIC, RDC	7/25/2000	0.5	1	Manganese	32,600	Addressed by site specific evaluation (HHE Page 6-15); soils (0-0.5) were excavated in September 2004 (FS Page 8-3 and RAP).
River Berm	SB-381 Expanded Floor of Excavation	IPSIC, RPSIC	9/13/2005	2	2	Manganese	6,200	Addressed by restrictive covenant.
River Berm	SB-381 North East Wall of Excavation	IPSIC	9/13/2004	0	1	Manganese	1,130	Addressed by restrictive covenant.
River Berm	SB-381 West Wall of Excavation	IPSIC	8/30/2005	0	1	Manganese	2,360	Addressed by restrictive covenant.
River Berm	SB-382	IPSIC	7/25/2000	0	0.5	Manganese	2,190	Addressed by site specific evaluation (HHE Page 6-15); site specific value = 2,300 mg/kg.
River Berm	SB-382	IPSIC, RPSIC	7/25/2000	0.5	1	Manganese	3,450	Addressed by restrictive covenant.
River Berm	SB-384	IPSIC	7/25/2000	0.5	1	Manganese	2,070	Addressed by site specific evaluation (HHE Page 6-15); site specific value = 2,300 mg/kg.
River Berm	SB-387	IPSIC	7/25/2000	0.5	1	Manganese	2,200 J	Addressed by site specific evaluation (HHE Page 6-15); site specific value = 2,300 mg/kg.
River Berm	SB-393	RPSIC	8/11/2000	0	0.5	Manganese	7840 J	Addressed by restrictive covenant.
River Berm	SB-399	RPSIC	8/11/2000	0	0.5	Manganese	3550 J	Addressed by restrictive covenant.
Unpaved area	US-5	IDC, RDC	6/12/1995	0	1	Total Aroclors	41	Surface soil samples containing PCBs were removed July 1998; confirmatory sampling indicate soils exceeding generic values were removed (HHE Page 4-21).
Unpaved area	US-5-4	RDC	6/10/1996	0	1	Total PCBs	4.4 J	Addressed by restrictive covenant.
Unpaved area	US-5-7	IDC, RDC	6/10/1996	0	1	Total Aroclors	26	Surface soil samples containing PCBs were removed July 1998; confirmatory sampling indicate soils exceeding generic values were removed (HHE Page 4-21).
Unpaved area	US-6	RDC	6/12/1995	0	1	Arsenic	9.59	Addressed by restrictive covenant.
Unpaved area	US-8	RDC	6/12/1995	0	1	Total PCBs	5	Addressed by restrictive covenant.

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TABLE 2-1
SUMMARY OF SITE SOIL DATA THAT EXCEED GENERIC MDEQ CRITERIA1

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Notes:
RI = Remedial Investigation Report, BBL, July 2001.
HHE = Human Health Evaluation, BBL, July 2003.
IDC = Industrial Direct Contact criteria
ISVIA = Industrial Soil Volatilization to Indoor Air Inhalation criteria.
IPSIC = Industrial Particulate Soil Inhalation criteria.
J = The compound/constituent was positively identified; however, the associated numerical value is an estimated concentration only.
B = (Organic) The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect. (Inorganic) The analyte has been positively identified. The concentration is between the instrument detection limit and the required reporting limit.

[1] The data were compared to the Part 201 Generic MDEQ Residential and Industrial Criteria, dated January 2006 (with the exception of the Drinking Water and Groundwater Surface Water Interface Protection Criteria; a comparison to these criteria is shown in Table 2-2).

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TABLE 2-2

SUMMARY OF SITE SOIL DATA THAT EXCEED GENERIC MDEQ DRINKING WATER AND GSI PROTECTION CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Depth Start (feet)	Depth End (feet)	Analyte	Detected Concentration (mg/kg)	Comments
RI = Remedial Investigation Report, BBL 2001.	SB-336	GSIP	6/23/1995	0	2	Cyanide, Total	0.23	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-336	GSIP	6/23/1995	0	2	Chromium (Total)	21.2	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-336	IDWP, GSIP, RDWP	6/23/1995	0	2	Manganese	1,180	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-336	IDWP, RDWP	6/23/1995	0	2	Aluminum	3,690	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-336	IDWP, RDWP	6/23/1995	0	2	Iron	21,300	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-336	RDWP	6/23/1995	0	2	Magnesium	11,200	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-337	GSIP	6/23/1995	4	6	Cyanide, Total	0.16	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-337	GSIP	6/23/1995	4	6	Copper	322	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-337	IDWP, GSIP, RDWP	6/23/1995	4	6	Chromium (Total)	32.5	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-337	IDWP, GSIP, RDWP	6/23/1995	4	6	Manganese	1,430	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-337	IDWP, RDWP	6/23/1995	4	6	Aluminum	3,790	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-337	IDWP, RDWP	6/23/1995	4	6	Iron	31,400	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-338	GSIP	6/26/1995	2	4	Cyanide, Total	0.15	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-338	GSIP	6/26/1995	2	4	Chromium (Total)	9.3 N	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-338	IDWP, GSIP, RDWP	6/26/1995	2	4	Manganese	287*	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-338	IDWP, GSIP, RDWP	6/26/1995	2	4	Cobalt	3.1 B	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-338	IDWP, RDWP	6/26/1995	2	4	Aluminum	2,820	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-338	IDWP, RDWP	6/26/1995	2	4	Iron	9,160	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-338	GSIP	6/26/1995	6	8	Selenium	1.2	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-338	GSIP	6/26/1995	6	8	Silver	0.7 B	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-338	IDWP, GSIP, RDWP	6/26/1995	6	8	Manganese	2,780*	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.

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TABLE 2-2

SUMMARY OF SITE SOIL DATA THAT EXCEED GENERIC MDEQ DRINKING WATER AND GSI PROTECTION CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Depth Start (feet)	Depth End (feet)	Analyte	Detected Concentration (mg/kg)	Comments
Buffer Basin	SB-338	IDWP, GSIP, RDWP	6/26/1995	6	8	Cobalt	5.4 B	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-338	IDWP, GSIP, RDWP	6/26/1995	6	8	Chromium (Total)	54.4 N	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-338	IDWP, RDWP	6/26/1995	6	8	Aluminum	5,190	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-338	IDWP, RDWP	6/26/1995	6	8	Iron	24,000	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-339	GSIP	6/26/1995	2	4	Cyanide, Total	0.17	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-339	GSIP	6/26/1995	2	4	Cyanide, Total	0.22	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-339	GSIP	6/26/1995	2	4	Silver	0.21 B	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-339	GSIP	6/26/1995	2	4	Silver	0.27 B	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-339	GSIP	6/26/1995	2	4	Chromium (Total)	18 N	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-339	IDWP	6/26/1995	2	4	Iron	125,000	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-339	IDWP, GSIP, RDWP	6/26/1995	2	4	Cobalt	12.9	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-339	IDWP, GSIP, RDWP	6/26/1995	2	4	Cobalt	24.2	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-339	IDWP, GSIP, RDWP	6/26/1995	2	4	Chromium (Total)	31.2 N	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-339	IDWP, GSIP, RDWP	6/26/1995	2	4	Manganese	460*	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-339	IDWP, GSIP, RDWP	6/26/1995	2	4	Manganese	772*	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-339	IDWP, RDWP	6/26/1995	2	4	Cobalt	12.9	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-339	IDWP, RDWP	6/26/1995	2	4	Aluminum	2,760	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-339	IDWP, RDWP	6/26/1995	2	4	Aluminum	3,110	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-339	IDWP, RDWP	6/26/1995	2	4	Iron	62,000	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-339	RDWP	6/26/1995	2	4	Iron	125,000	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-340	GSIP	6/26/1995	2	4	Selenium	2	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.

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TABLE 2-2

SUMMARY OF SITE SOIL DATA THAT EXCEED GENERIC MDEQ DRINKING WATER AND GSI PROTECTION CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Depth Start (feet)	Depth End (feet)	Analyte	Detected Concentration (mg/kg)	Comments
Buffer Basin	SB-340	GSIP	6/26/1995	2	4	Silver	0.78 B	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-340	IDWP, GSIP, RDWP	6/26/1995	2	4	Cobalt	3.6 B	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-340	IDWP, GSIP, RDWP	6/26/1995	2	4	Manganese	5,800*	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-340	IDWP, GSIP, RDWP	6/26/1995	2	4	Chromium (Total)	58.5 N	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-340	IDWP, RDWP	6/26/1995	2	4	Aluminum	8,820	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-340	IDWP, RDWP	6/26/1995	2	4	Iron	21,400	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-341	GSIP	6/26/1995	2	4	Selenium	0.45	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-341	GSIP	6/26/1995	2	4	Cyanide, Total	0.73	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-341	GSIP	6/26/1995	2	4	Naphthalene	1.5	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-341	GSIP	6/26/1995	2	4	Silver	0.3 B	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-341	GSIP	6/26/1995	2	4	Zinc	288 E,N	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-341	IDWP, GSIP, RDWP	6/26/1995	2	4	Chromium (Total)	31 N	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-341	IDWP, GSIP, RDWP	6/26/1995	2	4	Manganese	589*	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-341	IDWP, GSIP, RDWP	6/26/1995	2	4	Cobalt	7.3 B	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-341	IDWP, RDWP	6/26/1995	2	4	Aluminum	13,000	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-341	IDWP, RDWP	6/26/1995	2	4	Iron	31,700	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-343	GSIP	6/26/1995	2	4	Silver	0.36 B	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-343	IDWP, GSIP, RDWP	6/26/1995	2	4	Cobalt	11.1	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-343	IDWP, GSIP, RDWP	6/26/1995	2	4	Manganese	1,130*	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-343	IDWP, GSIP, RDWP	6/26/1995	2	4	Chromium (Total)	31.9 N	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-343	IDWP, RDWP	6/26/1995	2	4	Aluminum	4,080	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.

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TABLE 2-2

SUMMARY OF SITE SOIL DATA THAT EXCEED GENERIC MDEQ DRINKING WATER AND GSI PROTECTION CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Depth Start (feet)	Depth End (feet)	Analyte	Detected Concentration (mg/kg)	Comments
Buffer Basin	SB-343	IDWP, RDWP	6/26/1995	2	4	Iron	47,000	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-344	GSIP	6/26/1995	2	4	Silver	0.25 B	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-344	GSIP	6/26/1995	2	4	Chromium (Total)	12.6 N	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-344	IDWP, GSIP, RDWP	6/26/1995	2	4	Cobalt	4.8 B	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-344	IDWP, GSIP, RDWP	6/26/1995	2	4	Manganese	664*	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-344	IDWP, RDWP	6/26/1995	2	4	Aluminum	4,520	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-344	IDWP, RDWP	6/26/1995	2	4	Iron	14,500	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-345	GSIP	6/27/1995	2	4	Mercury	0.08	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-345	GSIP	6/27/1995	2	4	Selenium	1.1	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-345	GSIP	6/27/1995	2	4	Silver	0.78 B	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-345	IDWP, GSIP, RDWP	6/27/1995	2	4	Manganese	3,420*	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-345	IDWP, GSIP, RDWP	6/27/1995	2	4	Cobalt	5.2 B	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-345	IDWP, GSIP, RDWP	6/27/1995	2	4	Chromium (Total)	68.7 N	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-345	IDWP, RDWP	6/27/1995	2	4	Aluminum	7,670	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-345	IDWP, RDWP	6/27/1995	2	4	Iron	22,500	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-346	GSIP	6/27/1995	2	4	Selenium	0.99	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-346	GSIP	6/27/1995	2	4	Silver	0.46 B	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-346	IDWP	6/27/1995	2	4	Iron	26,100	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-346	IDWP, GSIP, RDWP	6/27/1995	2	4	Manganese	2,370*	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-346	IDWP, GSIP, RDWP	6/27/1995	2	4	Cobalt	4.5 B	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-346	IDWP, GSIP, RDWP	6/27/1995	2	4	Chromium (Total)	40.9 N	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.

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SUMMARY OF SITE SOIL DATA THAT EXCEED GENERIC MDEQ DRINKING WATER AND GSI PROTECTION CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Depth Start (feet)	Depth End (feet)	Analyte	Detected Concentration (mg/kg)	Comments
Buffer Basin	SB-346	IDWP, RDWP	6/27/1995	2	4	Aluminum	7,710	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-346	RDWP	6/27/1995	2	4	Iron	26,100	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-347	GSIP	6/27/1995	2	4	Selenium	0.58	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-347	GSIP	6/27/1995	2	4	Silver	0.52 B	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-347	IDWP, GSIP, RDWP	6/27/1995	2	4	Cobalt	7.1	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-347	IDWP, GSIP, RDWP	6/27/1995	2	4	Manganese	2,470*	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-347	IDWP, GSIP, RDWP	6/27/1995	2	4	Chromium (Total)	57.7 N	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-347	IDWP, RDWP	6/27/1995	2	4	Aluminum	6,150	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-347	IDWP, RDWP	6/27/1995	2	4	Iron	35,900	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-348	GSIP	6/27/1995	2	4	Cyanide, Total	0.17	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-348	GSIP	6/27/1995	2	4	Selenium	0.42	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-348	GSIP	6/27/1995	2	4	Silver	0.44 B	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-348	IDWP	6/27/1995	2	4	Iron	18,600	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-348	IDWP, GSIP, RDWP	6/27/1995	2	4	Manganese	1,200*	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-348	IDWP, GSIP, RDWP	6/27/1995	2	4	Chromium (Total)	36.3 N	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-348	IDWP, GSIP, RDWP	6/27/1995	2	4	Cobalt	4.7 B	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-348	IDWP, RDWP	6/27/1995	2	4	Aluminum	4,730	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-348	RDWP	6/27/1995	2	4	Iron	18,600	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-349	GSIP	6/27/1995	2	4	Cyanide, Total	0.72	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-349	GSIP	6/27/1995	2	4	Silver	0.25 B	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-349	GSIP	6/27/1995	2	4	Chromium (Total)	8.9 N	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.

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SUMMARY OF SITE SOIL DATA THAT EXCEED GENERIC MDEQ DRINKING WATER AND GSI PROTECTION CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Depth Start (feet)	Depth End (feet)	Analyte	Detected Concentration (mg/kg)	Comments
Buffer Basin	SB-349	IDWP	6/27/1995	2	4	Iron	12,700	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-349	IDWP, GSIP, RDWP	6/27/1995	2	4	Manganese	262*	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-349	IDWP, GSIP, RDWP	6/27/1995	2	4	Cobalt	4.9 B	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-349	IDWP, RDWP	6/27/1995	2	4	Aluminum	2,500	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-349	RDWP	6/27/1995	2	4	Iron	12,700	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-350	GSIP	6/27/1995	4	6	Cyanide, Total	0.14	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-350	GSIP	6/27/1995	4	6	Selenium	1.9	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-350	GSIP	6/27/1995	4	6	Silver	1 B	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-350	IDWP, GSIP, RDWP	6/27/1995	4	6	Cobalt	7.7	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-350	IDWP, GSIP, RDWP	6/27/1995	4	6	Manganese	5,690*	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-350	IDWP, GSIP, RDWP	6/27/1995	4	6	Chromium (Total)	78.4 N	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-350	IDWP, RDWP	6/27/1995	4	6	Aluminum	10,500	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Buffer Basin	SB-350	IDWP, RDWP	6/27/1995	4	6	Iron	31,400	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Drum Remediation Area	SB-389	GSIP	8/11/2000	0	0.5	Selenium	2.1	Interior site area; GSI criteria do not apply.
Drum Remediation Area	SB-389	GSIP	8/11/2000	0	0.5	Cyanide, Total	0.33 B	Interior site area; GSI criteria do not apply.
Drum Remediation Area	SB-389	IDWP, GSIP, RDWP	8/11/2000	0	0.5	Thallium	3.6	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Drum Remediation Area	SB-389	IDWP, GSIP, RDWP	8/11/2000	0	0.5	Chromium (Total)	44.5	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Drum Remediation Area	SB-389	IDWP, GSIP, RDWP	8/11/2000	0	0.5	Manganese	1,930 J	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Drum Remediation Area	SB-389	IDWP, GSIP, RDWP	8/11/2000	0	0.5	Cobalt	3.2 B	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Drum Remediation Area	SB-389	IDWP, RDWP	8/11/2000	0	0.5	Aluminum	8,760	Restrictive Covenant prevents use of the groundwater as a drinking water source.

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SUMMARY OF SITE SOIL DATA THAT EXCEED GENERIC MDEQ DRINKING WATER AND GSI PROTECTION CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Depth Start (feet)	Depth End (feet)	Analyte	Detected Concentration (mg/kg)	Comments
Drum Remediation Area	SB-389	IDWP, RDWP	8/11/2000	0	0.5	Iron	27,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Drum Remediation Area	SB-390	GSIP	8/11/2000	0	0.5	Selenium	1.1	Interior site area; GSI criteria do not apply.
Drum Remediation Area	SB-390	GSIP	8/11/2000	0	0.5	Chromium (Total)	12.9	Interior site area; GSI criteria do not apply.
Drum Remediation Area	SB-390	IDWP, GSIP, RDWP	8/11/2000	0	0.5	Manganese	151 J	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Drum Remediation Area	SB-390	IDWP, GSIP, RDWP	8/11/2000	0	0.5	Cobalt	3.4 B	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Drum Remediation Area	SB-390	IDWP, RDWP	8/11/2000	0	0.5	Aluminum	7,680	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Drum Remediation Area	SB-390	IDWP, RDWP	8/11/2000	0	0.5	Iron	9,340	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Drum Remediation Area	SB-391	GSIP	8/11/2000	0	0.5	Chromium (Total)	11.6	Interior site area; GSI criteria do not apply.
Drum Remediation Area	SB-391	GSIP	8/11/2000	0	0.5	Selenium	0.61 B	Interior site area; GSI criteria do not apply.
Drum Remediation Area	SB-391	IDWP, GSIP, RDWP	8/11/2000	0	0.5	Manganese	125 J	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Drum Remediation Area	SB-391	IDWP, GSIP, RDWP	8/11/2000	0	0.5	Cobalt	3.3 B	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Drum Remediation Area	SB-391	IDWP, RDWP	8/11/2000	0	0.5	Aluminum	6,200	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Drum Remediation Area	SB-391	IDWP, RDWP	8/11/2000	0	0.5	Iron	8,210	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Drum Remediation Area	SB-392	GSIP	8/11/2000	0	0.5	Chromium (Total)	13.1	Interior site area; GSI criteria do not apply.
Drum Remediation Area	SB-392	GSIP	8/11/2000	0	0.5	Selenium	0.63 B	Interior site area; GSI criteria do not apply.
Drum Remediation Area	SB-392	IDWP, GSIP, RDWP	8/11/2000	0	0.5	Manganese	208 J	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Drum Remediation Area	SB-392	IDWP, GSIP, RDWP	8/11/2000	0	0.5	Cobalt	4.2 B	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Drum Remediation Area	SB-392	IDWP, RDWP	8/11/2000	0	0.5	Aluminum	6,930	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Drum Remediation Area	SB-392	IDWP, RDWP	8/11/2000	0	0.5	Iron	10,600	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Drum Remediation Area	SB-392	RDWP	8/11/2000	0	0.5	Magnesium	12,500	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Drum Remediation Area	SB-393	GSIP	8/11/2000	0	0.5	Cyanide, Total	2.7	Interior site area; GSI criteria do not apply.
Drum Remediation Area	SB-393	GSIP	8/11/2000	0	0.5	Copper	501	Interior site area; GSI criteria do not apply.
Drum Remediation Area	SB-393	GSIP	8/11/2000	0	0.5	Silver	0.55 B G	Interior site area; GSI criteria do not apply.

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SUMMARY OF SITE SOIL DATA THAT EXCEED GENERIC MDEQ DRINKING WATER AND GSI PROTECTION CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Depth Start (feet)	Depth End (feet)	Analyte	Detected Concentration (mg/kg)	Comments
Drum Remediation Area	SB-393	GSIP	8/11/2000	0	0.5	Selenium	1.1 B G	Interior site area; GSI criteria do not apply.
Drum Remediation Area	SB-393	IDWP, GSIP, RDWP	8/11/2000	0	0.5	Chromium (Total)	184	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Drum Remediation Area	SB-393	IDWP, GSIP, RDWP	8/11/2000	0	0.5	Cobalt	3.1 B	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Drum Remediation Area	SB-393	IDWP, GSIP, RDWP	8/11/2000	0	0.5	Manganese	7,840 J	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Drum Remediation Area	SB-393	IDWP, RDWP	8/11/2000	0	0.5	Aluminum	10,700	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Drum Remediation Area	SB-393	IDWP, RDWP	8/11/2000	0	0.5	Iron	29,100	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Drum Remediation Area	SB-394	GSIP	8/11/2000	0	0.5	Chromium (Total)	10	Interior site area; GSI criteria do not apply.
Drum Remediation Area	SB-394	IDWP, GSIP, RDWP	8/11/2000	0	0.5	Cobalt	3 B	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Drum Remediation Area	SB-394	IDWP, RDWP	8/11/2000	0	0.5	Aluminum	5,940	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Drum Remediation Area	SB-394	IDWP, RDWP	8/11/2000	0	0.5	Iron	8,390	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Drum Remediation Area	SB-394	IDWP, RDWP	8/11/2000	0	0.5	Manganese	61.1 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Drum Remediation Area	SB-395	GSIP	8/11/2000	0	0.5	Selenium	0.74	Interior site area; GSI criteria do not apply.
Drum Remediation Area	SB-395	GSIP	8/11/2000	0	0.5	Chromium (Total)	14.1	Interior site area; GSI criteria do not apply.
Drum Remediation Area	SB-395	IDWP, GSIP, RDWP	8/11/2000	0	0.5	Manganese	392 J	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Drum Remediation Area	SB-395	IDWP, GSIP, RDWP	8/11/2000	0	0.5	Cobalt	4.9 B	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Drum Remediation Area	SB-395	IDWP, RDWP	8/11/2000	0	0.5	Aluminum	7,810	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Drum Remediation Area	SB-395	IDWP, RDWP	8/11/2000	0	0.5	Iron	13,200	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Drum Remediation Area	SB-398	GSIP	8/11/2000	0	0.5	Selenium	0.64	Interior site area; GSI criteria do not apply.
Drum Remediation Area	SB-398	GSIP	8/11/2000	0	0.5	Chromium (Total)	10.1	Interior site area; GSI criteria do not apply.
Drum Remediation Area	SB-398	GSIP	8/11/2000	0	0.5	Copper	365	Interior site area; GSI criteria do not apply.
Drum Remediation Area	SB-398	GSIP	8/11/2000	0	0.5	Silver	0.37 B	Interior site area; GSI criteria do not apply.
Drum Remediation Area	SB-398	IDWP, GSIP, RDWP	8/11/2000	0	0.5	Manganese	217 J	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.

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SUMMARY OF SITE SOIL DATA THAT EXCEED GENERIC MDEQ DRINKING WATER AND GSI PROTECTION CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Depth Start (feet)	Depth End (feet)	Analyte	Detected Concentration (mg/kg)	Comments
Drum Remediation Area	SB-398	IDWP, GSIP, RDWP	8/11/2000	0	0.5	Cobalt	3.8 B	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Drum Remediation Area	SB-398	IDWP, RDWP	8/11/2000	0	0.5	Aluminum	5,580	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Drum Remediation Area	SB-398	IDWP, RDWP	8/11/2000	0	0.5	Iron	10,900	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Drum Remediation Area	SB-399	GSIP	8/11/2000	0	0.5	Selenium	1.8	Interior site area; GSI criteria do not apply.
Drum Remediation Area	SB-399	IDWP, GSIP, RDWP	8/11/2000	0	0.5	Thallium	5.9	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Drum Remediation Area	SB-399	IDWP, GSIP, RDWP	8/11/2000	0	0.5	Chromium (Total)	83.7	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Drum Remediation Area	SB-399	IDWP, GSIP, RDWP	8/11/2000	0	0.5	Cobalt	3 B	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Drum Remediation Area	SB-399	IDWP, GSIP, RDWP	8/11/2000	0	0.5	Manganese	3,550 J	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Drum Remediation Area	SB-399	IDWP, RDWP	8/11/2000	0	0.5	Aluminum	6,070	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Drum Remediation Area	SB-399	IDWP, RDWP	8/11/2000	0	0.5	Iron	18,600	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Drum Remediation Area	SB-400	GSIP	8/11/2000	0	0.5	Chromium (Total)	12.6	Interior site area; GSI criteria do not apply.
Drum Remediation Area	SB-400	GSIP	8/11/2000	0	0.5	Mercury	0.051 B	Interior site area; GSI criteria do not apply.
Drum Remediation Area	SB-400	GSIP	8/11/2000	0	0.5	Selenium	0.74 B	Interior site area; GSI criteria do not apply.
Drum Remediation Area	SB-400	IDWP, GSIP, RDWP	8/11/2000	0	0.5	Manganese	220 J	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Drum Remediation Area	SB-400	IDWP, GSIP, RDWP	8/11/2000	0	0.5	Cobalt	4.6 B	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Drum Remediation Area	SB-400	IDWP, RDWP	8/11/2000	0	0.5	Aluminum	6,350	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Drum Remediation Area	SB-400	IDWP, RDWP	8/11/2000	0	0.5	Iron	10,800	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Drum Remediation Area	TP-2	GCCP, GSIP, IDWP, RDWP	3/23/1995	8	8.5	Fluoranthene	1,000	Soils removed in February 1997 and placed in GPL (RI Page 4-9).
Drum Remediation Area	TP-2	GCCP, IDWP, RDWP	3/23/1995	8	8.5	Anthracene	190	Soils removed in February 1997 and placed in GPL (RI Page 4-9).
Drum Remediation Area	TP-2	GCCP, IDWP, RDWP	3/23/1995	8	8.5	Pyrene	840	Soils removed in February 1997 and placed in GPL (RI Page 4-9).

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Depth Start (feet)	Depth End (feet)	Analyte	Detected Concentration (mg/kg)	Comments
Drum Remediation Area	TP-2	GSIP	3/23/1995	8	8.5	Mercury	0.753	Soils removed in February 1997 and placed in GPL (RI Page 4-9).
Drum Remediation Area	TP-2	GSIP	3/23/1995	8	8.5	Silver	7.69	Soils removed in February 1997 and placed in GPL (RI Page 4-9).
Drum Remediation Area	TP-2	GSIP	3/23/1995	8	8.5	Zinc	1,440 J	Soils removed in February 1997 and placed in GPL (RI Page 4-9).
Drum Remediation Area	TP-2	GSIP	3/23/1995	8	8.5	Dibenzofuran	42 J	Soils removed in February 1997 and placed in GPL (RI Page 4-9).
Drum Remediation Area	TP-2	GSIP	3/23/1995	8	8.5	Fluorene	43 J	Soils removed in February 1997 and placed in GPL (RI Page 4-9).
Drum Remediation Area	TP-2	GSIP	3/23/1995	8	8.5	Acenaphthene	57 J	Soils removed in February 1997 and placed in GPL (RI Page 4-9).
Drum Remediation Area	TP-2	GSIP, RDWP	3/23/1995	8	8.5	Naphthalene	38 J	Soils removed in February 1997 and placed in GPL (RI Page 4-9).
Drum Remediation Area	TP-2	IDWP, GSIP, RDWP	3/23/1995	8	8.5	Cobalt	13.5	Soils removed in February 1997 and placed in GPL (RI Page 4-9).
Drum Remediation Area	TP-2	IDWP, GSIP, RDWP	3/23/1995	8	8.5	Arsenic	30	Soils removed in February 1997 and placed in GPL (RI Page 4-9).
Drum Remediation Area	TP-2	IDWP, GSIP, RDWP	3/23/1995	8	8.5	Carbazole	97	Soils removed in February 1997 and placed in GPL (RI Page 4-9).
Drum Remediation Area	TP-2	IDWP, GSIP, RDWP	3/23/1995	8	8.5	Chromium (Total)	121	Soils removed in February 1997 and placed in GPL (RI Page 4-9).
Drum Remediation Area	TP-2	IDWP, GSIP, RDWP	3/23/1995	8	8.5	Nickel	185	Soils removed in February 1997 and placed in GPL (RI Page 4-9).
Drum Remediation Area	TP-2	IDWP, GSIP, RDWP	3/23/1995	8	8.5	Phenanthrene	630	Soils removed in February 1997 and placed in GPL (RI Page 4-9).
Drum Remediation Area	TP-2	IDWP, GSIP, RDWP	3/23/1995	8	8.5	Manganese	2,360 J	Soils removed in February 1997 and placed in GPL (RI Page 4-9).
Drum Remediation Area	TP-2	IDWP, GSIP, RDWP	3/23/1995	8	8.5	Copper	6,250 J	Soils removed in February 1997 and placed in GPL (RI Page 4-9).
Drum Remediation Area	TP-2	IDWP, RDWP	3/23/1995	8	8.5	Iron	62,000	Soils removed in February 1997 and placed in GPL (RI Page 4-9).
Drum Remediation Area	TP-2	IDWP, RDWP	3/23/1995	8	8.5	Aluminum	6,250 J	Soils removed in February 1997 and placed in GPL (RI Page 4-9).
Drum Remediation Area	TP-2	RDWP	3/23/1995	8	8.5	Silver	7.69	Soils removed in February 1997 and placed in GPL (RI Page 4-9).
Drum Remediation Area	TP-6	CSAT, GCCP, GSIP, IDWP, RDWP	3/22/1995	8	8.5	Ethylbenzene	170	Soils removed in February 1997 and placed in GPL (RI Page 4-9).
Drum Remediation Area	TP-6	CSAT, GCCP, GSIP, IDWP, RDWP	3/22/1995	8	8.5	Xylenes, Total	1,300	Soils removed in February 1997 and placed in GPL (RI Page 4-9).
Drum Remediation Area	TP-6	GSIP	3/22/1995	8	8.5	Mercury	0.331	Soils removed in February 1997 and placed in GPL (RI Page 4-9).

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SUMMARY OF SITE SOIL DATA THAT EXCEED GENERIC MDEQ DRINKING WATER AND GSI PROTECTION CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Depth Start (feet)	Depth End (feet)	Analyte	Detected Concentration (mg/kg)	Comments
Drum Remediation Area	TP-6	GSIP	3/22/1995	8	8.5	Selenium	3.23	Soils removed in February 1997 and placed in GPL (RI Page 4-9).
Drum Remediation Area	TP-6	GSIP	3/22/1995	8	8.5	Naphthalene	19	Soils removed in February 1997 and placed in GPL (RI Page 4-9).
Drum Remediation Area	TP-6	GSIP	3/22/1995	8	8.5	Copper	232 J	Soils removed in February 1997 and placed in GPL (RI Page 4-9).
Drum Remediation Area	TP-6	GSIP	3/22/1995	8	8.5	Zinc	361 J	Soils removed in February 1997 and placed in GPL (RI Page 4-9).
Drum Remediation Area	TP-6	IDWP, GSIP, RDWP	3/22/1995	8	8.5	Cobalt	18.8	Soils removed in February 1997 and placed in GPL (RI Page 4-9).
Drum Remediation Area	TP-6	IDWP, GSIP, RDWP	3/22/1995	8	8.5	Chromium (Total)	216	Soils removed in February 1997 and placed in GPL (RI Page 4-9).
Drum Remediation Area	TP-6	IDWP, GSIP, RDWP	3/22/1995	8	8.5	Nickel	389	Soils removed in February 1997 and placed in GPL (RI Page 4-9).
Drum Remediation Area	TP-6	IDWP, GSIP, RDWP	3/22/1995	8	8.5	Manganese	2,810 J	Soils removed in February 1997 and placed in GPL (RI Page 4-9).
Drum Remediation Area	TP-6	IDWP, RDWP	3/22/1995	8	8.5	Antimony	5.82	Soils removed in February 1997 and placed in GPL (RI Page 4-9).
Drum Remediation Area	TP-6	IDWP, RDWP	3/22/1995	8	8.5	Lead	3,070	Soils removed in February 1997 and placed in GPL (RI Page 4-9).
Drum Remediation Area	TP-6	IDWP, RDWP	3/22/1995	8	8.5	Iron	15,600	Soils removed in February 1997 and placed in GPL (RI Page 4-9).
Drum Remediation Area	TP-6	IDWP, RDWP	3/22/1995	8	8.5	Aluminum	4,920 J	Soils removed in February 1997 and placed in GPL (RI Page 4-9).
Drum Remediation Area	TP-12	GSIP	3/23/1995	7.8	8	Mercury	0.968	Interior site area; GSI criteria do not apply.
Drum Remediation Area	TP-12	GSIP	3/23/1995	7.8	8	Phenanthrene	35	Interior site area; GSI criteria do not apply.
Drum Remediation Area	TP-12	GSIP	3/23/1995	7.8	8	Fluoranthene	44	Interior site area; GSI criteria do not apply.
Drum Remediation Area	TP-12	GSIP	3/23/1995	7.8	8	Naphthalene	12 J	Interior site area; GSI criteria do not apply.
Drum Remediation Area	TP-12	GSIP	3/23/1995	7.8	8	Dibenzofuran	3.1 J	Interior site area; GSI criteria do not apply.
Drum Remediation Area	TP-12	GSIP	3/23/1995	7.8	8	Carbazole	3.2 J	Interior site area; GSI criteria do not apply.
Drum Remediation Area	TP-12	GSIP	3/23/1995	7.8	8	Manganese	3670 J	Interior site area; GSI criteria do not apply.
Drum Remediation Area	TP-12	GSIP	3/23/1995	7.8	8	Copper	901 J	Interior site area; GSI criteria do not apply.
Drum Remediation Area	TP-12	IDWP, GSIP, RDWP	3/23/1995	7.8	8	Cobalt	27.7	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Drum Remediation Area	TP-12	IDWP, GSIP, RDWP	3/23/1995	7.8	8	Arsenic	28.9	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Drum Remediation Area	TP-12	IDWP, GSIP, RDWP	3/23/1995	7.8	8	Antimony	224	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.

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SUMMARY OF SITE SOIL DATA THAT EXCEED GENERIC MDEQ DRINKING WATER AND GSI PROTECTION CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Depth Start (feet)	Depth End (feet)	Analyte	Detected Concentration (mg/kg)	Comments
Drum Remediation Area	TP-12	IDWP, GSIP, RDWP	3/23/1995	7.8	8	Chromium (Total)	321	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Drum Remediation Area	TP-12	IDWP, GSIP, RDWP	3/23/1995	7.8	8	Nickel	959	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Drum Remediation Area	TP-12	IDWP, RDWP	3/23/1995	7.8	8	Lead	1,810	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Drum Remediation Area	TP-12	IDWP, RDWP	3/23/1995	7.8	8	Iron	26,700	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Drum Remediation Area	TP-12	IDWP, RDWP	3/23/1995	7.8	8	Aluminum	3,090 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Drum Remediation Area	TP-12	IDWP, RDWP	3/23/1995	7.8	8	Manganese	3,670 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	BBL-MW3	GSIP	5/2/1996	6	8	Toluene	6.4 J	Interior site area; GSI criteria do not apply.
Former UST #7	BBL-MW3	IDWP, GSIP, RDWP	5/2/1996	6	8	Ethylbenzene	14 J	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	BBL-MW3	IDWP, GSIP, RDWP	5/2/1996	6	8	1,2,4-Trimethylbenzene	38 J	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	BBL-MW3	IDWP, GSIP, RDWP	5/2/1996	6	8	Xylenes, Total	39 J	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	BBL-MW3	IDWP, GSIP, RDWP	5/2/1996	6	8	Benzene	7.3 J	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	BBL-MW3	IDWP, GSIP, RDWP	5/2/1996	6	8	1,3,5-Trimethylbenzene	7.7 J	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	BBL-SB1	IDWP, GSIP, RDWP	5/6/1996	8	10	Ethylbenzene	5.4	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	BBL-SB1	IDWP, GSIP, RDWP	5/6/1996	8	10	1,3,5-Trimethylbenzene	18	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	BBL-SB1	IDWP, GSIP, RDWP	5/6/1996	8	10	Xylenes, Total	29	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	BBL-SB1	IDWP, GSIP, RDWP	5/6/1996	8	10	1,2,4-Trimethylbenzene	62	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	BBL-SB3	GSIP	5/7/1996	8	10	Toluene	2.9 J	Interior site area; GSI criteria do not apply.

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SUMMARY OF SITE SOIL DATA THAT EXCEED GENERIC MDEQ DRINKING WATER AND GSI PROTECTION CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Depth Start (feet)	Depth End (feet)	Analyte	Detected Concentration (mg/kg)	Comments
Former UST #7	BBL-SB3	IDWP, GSIP, RDWP	5/7/1996	8	10	Benzene	21 J	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	BBL-SB3	IDWP, GSIP, RDWP	5/7/1996	8	10	Ethylbenzene	29 J	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	BBL-SB3	IDWP, GSIP, RDWP	5/7/1996	8	10	Xylenes, Total	45 J	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	BBL-SB3	IDWP, GSIP, RDWP	5/7/1996	8	10	1,3,5-Trimethylbenzene	7.1 J	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	BBL-SB3	IDWP, GSIP, RDWP	5/7/1996	8	10	1,2,4-Trimethylbenzene	84 J	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	BBL-SB4	GSIP	5/7/1996	0	2	Toluene	3.8	Interior site area; GSI criteria do not apply.
Former UST #7	BBL-SB4	IDWP, GSIP, RDWP	5/7/1996	0	2	Ethylbenzene	28	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	BBL-SB4	IDWP, GSIP, RDWP	5/7/1996	0	2	Xylenes, Total	120	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	BBL-SB4	IDWP, GSIP, RDWP	5/7/1996	0	2	Benzene	2.7 J	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	BBL-SB4	GSIP	5/7/1996	8	10	Toluene	4.3	Interior site area; GSI criteria do not apply.
Former UST #7	BBL-SB4	IDWP, GSIP, RDWP	5/7/1996	8	10	Benzene	3	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	BBL-SB4	IDWP, GSIP, RDWP	5/7/1996	8	10	Ethylbenzene	23	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	BBL-SB4	IDWP, GSIP, RDWP	5/7/1996	8	10	Xylenes, Total	90	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	SB-351	GSIP	6/27/1995	0	2	Silver	0.23 B	Interior site area; GSI criteria do not apply.
Former UST #7	SB-351	GSIP	6/27/1995	0	2	Chromium (Total)	6.8 N	Interior site area; GSI criteria do not apply.
Former UST #7	SB-351	IDWP, GSIP, RDWP	6/27/1995	0	2	Manganese	314*	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	SB-351	IDWP, GSIP, RDWP	6/27/1995	0	2	Cobalt	5 B	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.

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SUMMARY OF SITE SOIL DATA THAT EXCEED GENERIC MDEQ DRINKING WATER AND GSI PROTECTION CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Depth Start (feet)	Depth End (feet)	Analyte	Detected Concentration (mg/kg)	Comments
Former UST #7	SB-351	IDWP, RDWP	6/27/1995	0	2	Aluminum	4,720	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	SB-351	IDWP, RDWP	6/27/1995	0	2	Iron	19,300	Restrictive Covenant prevents use of the groundwater as a drinking water source.
LNAPL/Unpaved Area	SB-362	GSIP	9/28/1995	0	2	Mercury	0.101	Interior site area; GSI criteria do not apply.
LNAPL/Unpaved Area	SB-362	GSIP	9/28/1995	0	2	Cyanide, Total	0.43	Interior site area; GSI criteria do not apply.
LNAPL/Unpaved Area	SB-362	GSIP	9/28/1995	0	2	Copper	204	Interior site area; GSI criteria do not apply.
LNAPL/Unpaved Area	SB-362	IDWP, GSIP, RDWP	9/28/1995	0	2	Cobalt	7.05	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
LNAPL/Unpaved Area	SB-362	IDWP, GSIP, RDWP	9/28/1995	0	2	Chromium (Total)	52.1	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
LNAPL/Unpaved Area	SB-362	IDWP, GSIP, RDWP	9/28/1995	0	2	Manganese	771 J	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
LNAPL/Unpaved Area	SB-362	IDWP, RDWP	9/28/1995	0	2	Antimony	9.16	Restrictive Covenant prevents use of the groundwater as a drinking water source.
LNAPL/Unpaved Area	SB-362	IDWP, RDWP	9/28/1995	0	2	Lead	1,020	Restrictive Covenant prevents use of the groundwater as a drinking water source.
LNAPL/Unpaved Area	SB-362	IDWP, RDWP	9/28/1995	0	2	Iron	43,300	Restrictive Covenant prevents use of the groundwater as a drinking water source.
LNAPL/Unpaved Area	SB-362	IDWP, RDWP	9/28/1995	0	2	Aluminum	7,120 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
LNAPL/Unpaved Area	SB-362	RDWP	9/28/1995	0	2	Magnesium	11,800 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
LNAPL/Unpaved Area	SB-362	GSIP	9/28/1995	4	6	Copper	661	Interior site area; GSI criteria do not apply.
LNAPL/Unpaved Area	SB-362	IDWP, GSIP, RDWP	9/28/1995	4	6	Cobalt	12.6	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
LNAPL/Unpaved Area	SB-362	IDWP, GSIP, RDWP	9/28/1995	4	6	Arsenic	23.6	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
LNAPL/Unpaved Area	SB-362	IDWP, GSIP, RDWP	9/28/1995	4	6	Chromium (Total)	109	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
LNAPL/Unpaved Area	SB-362	IDWP, GSIP, RDWP	9/28/1995	4	6	Manganese	1,240 J	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
LNAPL/Unpaved Area	SB-362	IDWP, GSIP, RDWP	9/28/1995	4	6	Aluminum	3,030 J	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Depth Start (feet)	Depth End (feet)	Analyte	Detected Concentration (mg/kg)	Comments
LNAPL/Unpaved Area	SB-362	IDWP, RDWP	9/28/1995	4	6	Nickel	105	Restrictive Covenant prevents use of the groundwater as a drinking water source.
LNAPL/Unpaved Area	SB-362	IDWP, RDWP	9/28/1995	4	6	Iron	16,200	Restrictive Covenant prevents use of the groundwater as a drinking water source.
LNAPL/Unpaved Area	SB-362	GSIP	9/28/1995	8	10	Chromium (Total)	8.96	Interior site area; GSI criteria do not apply.
LNAPL/Unpaved Area	SB-362	IDWP, GSIP, RDWP	9/28/1995	8	10	Manganese	130 J	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
LNAPL/Unpaved Area	SB-362	IDWP, RDWP	9/28/1995	8	10	Iron	8,360	Restrictive Covenant prevents use of the groundwater as a drinking water source.
LNAPL/Unpaved Area	SB-362	RDWP	9/28/1995	8	10	Aluminum	3,510 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
LNAPL/Unpaved Area	SB-363	GSIP	9/28/1995	0	2	Cyanide, Total	0.77	Interior site area; GSI criteria do not apply.
LNAPL/Unpaved Area	SB-363	GSIP	9/28/1995	0	2	Copper	202	Interior site area; GSI criteria do not apply.
LNAPL/Unpaved Area	SB-363	GSIP	9/28/1995	0	2	Mercury	0.0616 J	Interior site area; GSI criteria do not apply.
LNAPL/Unpaved Area	SB-363	IDWP, GSIP, RDWP	9/28/1995	0	2	Cobalt	6.96	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
LNAPL/Unpaved Area	SB-363	IDWP, GSIP, RDWP	9/28/1995	0	2	Chromium (Total)	77	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
LNAPL/Unpaved Area	SB-363	IDWP, GSIP, RDWP	9/28/1995	0	2	Manganese	1,270 J	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
LNAPL/Unpaved Area	SB-363	IDWP, RDWP	9/28/1995	0	2	Antimony	17.4	Restrictive Covenant prevents use of the groundwater as a drinking water source.
LNAPL/Unpaved Area	SB-363	IDWP, RDWP	9/28/1995	0	2	Nickel	104	Restrictive Covenant prevents use of the groundwater as a drinking water source.
LNAPL/Unpaved Area	SB-363	IDWP, RDWP	9/28/1995	0	2	Lead	1,320	Restrictive Covenant prevents use of the groundwater as a drinking water source.
LNAPL/Unpaved Area	SB-363	IDWP, RDWP	9/28/1995	0	2	Iron	34,900	Restrictive Covenant prevents use of the groundwater as a drinking water source.
LNAPL/Unpaved Area	SB-363	IDWP, RDWP	9/28/1995	0	2	Aluminum	5,020 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
LNAPL/Unpaved Area	SB-363	GSIP	9/28/1995	4	6	Cyanide, Total	0.81	Interior site area; GSI criteria do not apply.
LNAPL/Unpaved Area	SB-363	GSIP	9/28/1995	4	6	Silver	1.38	Interior site area; GSI criteria do not apply.
LNAPL/Unpaved Area	SB-363	IDWP, GSIP, RDWP	9/28/1995	4	6	Chromium (Total)	147	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
LNAPL/Unpaved Area	SB-363	IDWP, GSIP, RDWP	9/28/1995	4	6	Zinc	5,560	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.

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GENERAL MOTORS CORPORATION
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SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Depth Start (feet)	Depth End (feet)	Analyte	Detected Concentration (mg/kg)	Comments
LNAPL/Unpaved Area	SB-363	IDWP, GSIP, RDWP	9/28/1995	4	6	Copper	44,700	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
LNAPL/Unpaved Area	SB-363	IDWP, GSIP, RDWP	9/28/1995	4	6	Manganese	452 J	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
LNAPL/Unpaved Area	SB-363	IDWP, RDWP	9/28/1995	4	6	Antimony	22.3	Restrictive Covenant prevents use of the groundwater as a drinking water source.
LNAPL/Unpaved Area	SB-363	IDWP, RDWP	9/28/1995	4	6	Lead	1,780	Restrictive Covenant prevents use of the groundwater as a drinking water source.
LNAPL/Unpaved Area	SB-363	IDWP, RDWP	9/28/1995	4	6	Iron	43,100	Restrictive Covenant prevents use of the groundwater as a drinking water source.
LNAPL/Unpaved Area	SB-363	IDWP, RDWP	9/28/1995	4	6	Aluminum	3,080 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
LNAPL/Unpaved Area	SB-363	RDWP	9/28/1995	4	6	Magnesium	8,400 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
LNAPL/Unpaved Area	SB-363	GSIP	9/28/1995	8	10	Chromium (Total)	11.8	Interior site area; GSI criteria do not apply.
LNAPL/Unpaved Area	SB-363	IDWP, GSIP, RDWP	9/28/1995	8	10	Manganese	210 J	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
LNAPL/Unpaved Area	SB-363	IDWP, RDWP	9/28/1995	8	10	Iron	10,700	Restrictive Covenant prevents use of the groundwater as a drinking water source.
LNAPL/Unpaved Area	SB-363	IDWP, RDWP	9/28/1995	8	10	Aluminum	5,190 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Metal Feed Stock Area	SB-304	GSIP	2/8/1995	0	1	Mercury	0.155	Interior site area; GSI criteria do not apply.
Metal Feed Stock Area	SB-304	IDWP, GSIP, RDWP	2/8/1995	0	1	Chromium (Total)	62.7	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Metal Feed Stock Area	SB-304	IDWP, GSIP, RDWP	2/8/1995	0	1	Manganese	6,140	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Metal Feed Stock Area	SB-304	IDWP, RDWP	2/8/1995	0	1	Iron	34,800	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Metal Feed Stock Area	SB-304	IDWP, RDWP	2/8/1995	0	1	Aluminum	7,440 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Metal Feed Stock Area	SB-304	GSIP	2/8/1995	2	4	Cyanide, Total	0.38	Interior site area; GSI criteria do not apply.
Metal Feed Stock Area	SB-304	GSIP	2/8/1995	2	4	Mercury	0.691	Interior site area; GSI criteria do not apply.
Metal Feed Stock Area	SB-304	GSIP	2/8/1995	2	4	Copper	155	Interior site area; GSI criteria do not apply.
Metal Feed Stock Area	SB-304	GSIP	2/8/1995	2	4	Zinc	436	Interior site area; GSI criteria do not apply.
Metal Feed Stock Area	SB-304	IDWP, GSIP, RDWP	2/8/1995	2	4	Cobalt	7.91	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.

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SUMMARY OF SITE SOIL DATA THAT EXCEED GENERIC MDEQ DRINKING WATER AND GSI PROTECTION CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Depth Start (feet)	Depth End (feet)	Analyte	Detected Concentration (mg/kg)	Comments
Metal Feed Stock Area	SB-304	IDWP, GSIP, RDWP	2/8/1995	2	4	Chromium (Total)	84.4	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Metal Feed Stock Area	SB-304	IDWP, GSIP, RDWP	2/8/1995	2	4	Manganese	9,190	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Metal Feed Stock Area	SB-304	IDWP, RDWP	2/8/1995	2	4	Aluminum	8,870	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Metal Feed Stock Area	SB-304	IDWP, RDWP	2/8/1995	2	4	Iron	87,400	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Metal Feed Stock Area	SB-304	GSIP	2/8/1995	6	8	Chromium (Total)	12	Interior site area; GSI criteria do not apply.
Metal Feed Stock Area	SB-304	IDWP, GSIP, RDWP	2/8/1995	6	8	Manganese	1,040	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Metal Feed Stock Area	SB-304	IDWP, RDWP	2/8/1995	6	8	Aluminum	3,100	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Metal Feed Stock Area	SB-304	IDWP, RDWP	2/8/1995	6	8	Iron	15,200	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Metal Feed Stock Area	SB-305	GSIP	2/8/1995	0	1	Chromium (Total)	14.2	Interior site area; GSI criteria do not apply.
Metal Feed Stock Area	SB-305	GSIP	2/8/1995	0	1	Chromium (Total)	14.8	Interior site area; GSI criteria do not apply.
Metal Feed Stock Area	SB-305	IDWP, GSIP, RDWP	2/8/1995	0	1	Manganese	232	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Metal Feed Stock Area	SB-305	IDWP, RDWP	2/8/1995	0	1	Aluminum	4,470	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Metal Feed Stock Area	SB-305	IDWP, RDWP	2/8/1995	0	1	Iron	14,800	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Metal Feed Stock Area	SB-305	IDWP, GSIP, RDWP	2/8/1995	2	4	Chromium (Total)	125	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Metal Feed Stock Area	SB-305	IDWP, GSIP, RDWP	2/8/1995	2	4	Manganese	6,820	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Metal Feed Stock Area	SB-305	IDWP, RDWP	2/8/1995	2	4	Aluminum	11,700	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Metal Feed Stock Area	SB-305	IDWP, RDWP	2/8/1995	2	4	Iron	22,700	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Metal Feed Stock Area	SB-305	GSIP	2/8/1995	6	8	Copper	192	Interior site area; GSI criteria do not apply.
Metal Feed Stock Area	SB-305	IDWP, GSIP, RDWP	2/8/1995	6	8	Chromium (Total)	77.8	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Depth Start (feet)	Depth End (feet)	Analyte	Detected Concentration (mg/kg)	Comments
Metal Feed Stock Area	SB-305	IDWP, GSIP, RDWP	2/8/1995	6	8	Manganese	3,830	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Metal Feed Stock Area	SB-305	IDWP, RDWP	2/8/1995	6	8	Aluminum	3,570	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Metal Feed Stock Area	SB-305	IDWP, RDWP	2/8/1995	6	8	Iron	26,800	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Metal Feed Stock Area	SB-352	GSIP	6/28/1995	0	2	Mercury	0.3	Interior site area; GSI criteria do not apply.
Metal Feed Stock Area	SB-352	GSIP	6/28/1995	0	2	Silver	0.66 B	Interior site area; GSI criteria do not apply.
Metal Feed Stock Area	SB-352	IDWP, GSIP, RDWP	6/28/1995	0	2	Cobalt	10.1	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Metal Feed Stock Area	SB-352	IDWP, GSIP, RDWP	6/28/1995	0	2	Manganese	1,120*	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Metal Feed Stock Area	SB-352	IDWP, GSIP, RDWP	6/28/1995	0	2	Chromium (Total)	43.8 N	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Metal Feed Stock Area	SB-352	IDWP, RDWP	6/28/1995	0	2	Aluminum	4,100	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Metal Feed Stock Area	SB-352	IDWP, RDWP	6/28/1995	0	2	Iron	40,900	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Metal Feed Stock Area	SB-353	GSIP	6/28/1995	0	2	Cyanide, Total	0.12	Interior site area; GSI criteria do not apply.
Metal Feed Stock Area	SB-353	GSIP	6/28/1995	0	2	Silver	0.4 B	Interior site area; GSI criteria do not apply.
Metal Feed Stock Area	SB-353	GSIP	6/28/1995	0	2	Copper	246 N*	Interior site area; GSI criteria do not apply.
Metal Feed Stock Area	SB-353	IDWP, GSIP, RDWP	6/28/1995	0	2	Cobalt	36.2	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Metal Feed Stock Area	SB-353	IDWP, GSIP, RDWP	6/28/1995	0	2	Manganese	1,230*	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Metal Feed Stock Area	SB-353	IDWP, GSIP, RDWP	6/28/1995	0	2	Chromium (Total)	142 N	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Metal Feed Stock Area	SB-353	IDWP, RDWP	6/28/1995	0	2	Aluminum	2,410	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Metal Feed Stock Area	SB-353	IDWP, RDWP	6/28/1995	0	2	Iron	206,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Metal Feed Stock Area	SB-353	IDWP, RDWP	6/28/1995	0	2	Nickel	113 E	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Metal Feed Stock Area	SB-354	GSIP	6/28/1995	0	2	Silver	0.22 B	Interior site area; GSI criteria do not apply.
Metal Feed Stock Area	SB-354	GSIP	6/28/1995	0	2	Chromium (Total)	12.6 N	Interior site area; GSI criteria do not apply.

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SUMMARY OF SITE SOIL DATA THAT EXCEED GENERIC MDEQ DRINKING WATER AND GSI PROTECTION CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Depth Start (feet)	Depth End (feet)	Analyte	Detected Concentration (mg/kg)	Comments
Metal Feed Stock Area	SB-354	IDWP, GSIP, RDWP	6/28/1995	0	2	Cobalt	3.7 B	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Metal Feed Stock Area	SB-354	IDWP, GSIP, RDWP	6/28/1995	0	2	Manganese	474*	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Metal Feed Stock Area	SB-354	IDWP, RDWP	6/28/1995	0	2	Aluminum	2,780	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Metal Feed Stock Area	SB-354	IDWP, RDWP	6/28/1995	0	2	Iron	18,600	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Parking Lot Area North of Buffer Basin	BH10	IDWP, RDWP, GSIP	3/6/2007	0	2	Chromium Total	108	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Parking Lot Area North of Buffer Basin	BH10	IDWP, RDWP, GSIP	3/6/2007	2	4	Chromium Total	142	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Parking Lot Area North of Buffer Basin	BH10	IDWP, RDWP, GSIP	3/6/2007	0	2	Manganese	9200	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Parking Lot Area North of Buffer Basin	BH10	IDWP, RDWP, GSIP	3/6/2007	2	4	Manganese	11900	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Parking Lot Area North of Buffer Basin	BH9	GSIP	3/6/2007	0	2	Carbazole	3.6 J	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Parking Lot Area North of Buffer Basin	BH9	GSIP	3/6/2007	0	2	Chromium Total	18.9	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Parking Lot Area North of Buffer Basin	BH9	GSIP	3/6/2007	0	2	Dibenzofuran	2.4 J	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Parking Lot Area North of Buffer Basin	BH9	GSIP	3/6/2007	0	2	Fluoranthene	21	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Parking Lot Area North of Buffer Basin	BH9	IDWP, RDWP, GSIP	3/6/2007	0	2	Manganese	965	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Parking Lot Area North of Buffer Basin	BH9	GSIP	3/6/2007	0	2	Phenanthrene	23	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Parking Lot Area North of Buffer Basin	SB-342	GSIP	6/26/1995	2	4	Cyanide, Total	0.19	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.

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GENERAL MOTORS CORPORATION
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SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Depth Start (feet)	Depth End (feet)	Analyte	Detected Concentration (mg/kg)	Comments
Parking Lot Area North of Buffer Basin	SB-342	GSIP	6/26/1995	2	4	Silver	3.7	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Parking Lot Area North of Buffer Basin	SB-342	IDWP, GSIP, RDWP	6/26/1995	2	4	Cobalt	5.4	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Parking Lot Area North of Buffer Basin	SB-342	IDWP, GSIP, RDWP	6/26/1995	2	4	Selenium	6.5	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Parking Lot Area North of Buffer Basin	SB-342	IDWP, GSIP, RDWP	6/26/1995	2	4	Manganese	15,900*	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Parking Lot Area North of Buffer Basin	SB-342	IDWP, GSIP, RDWP	6/26/1995	2	4	Chromium (Total)	201 N	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Parking Lot Area North of Buffer Basin	SB-342	IDWP, RDWP	6/26/1995	2	4	Aluminum	20,600	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Parking Lot Area North of Buffer Basin	SB-342	IDWP, RDWP	6/26/1995	2	4	Iron	29,200	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Parking Lot Area North of Buffer Basin	SB-342	GSIP	6/26/1995	4	6	Cyanide, Total	0.13	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Parking Lot Area North of Buffer Basin	SB-342	GSIP	6/26/1995	4	6	Selenium	2.2	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Parking Lot Area North of Buffer Basin	SB-342	GSIP	6/26/1995	4	6	Silver	1 B	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Parking Lot Area North of Buffer Basin	SB-342	IDWP, GSIP, RDWP	6/26/1995	4	6	Cobalt	2.3 B	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Parking Lot Area North of Buffer Basin	SB-342	IDWP, GSIP, RDWP	6/26/1995	4	6	Manganese	5,410*	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Parking Lot Area North of Buffer Basin	SB-342	IDWP, GSIP, RDWP	6/26/1995	4	6	Chromium (Total)	79 N	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Parking Lot Area North of Buffer Basin	SB-342	IDWP, RDWP	6/26/1995	4	6	Aluminum	9,780	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Parking Lot Area North of Buffer Basin	SB-342	IDWP, RDWP	6/26/1995	4	6	Iron	16,500	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Parking Lot Area North of Buffer Basin	SB-355	GSIP	6/28/1995	2	4	Selenium	1.4	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Parking Lot Area North of Buffer Basin	SB-355	GSIP	6/28/1995	2	4	Silver	0.54 B	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Parking Lot Area North of Buffer Basin	SB-355	IDWP, GSIP, RDWP	6/28/1995	2	4	Cobalt	9.2	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Parking Lot Area North of Buffer Basin	SB-355	IDWP, GSIP, RDWP	6/28/1995	2	4	Manganese	3,290*	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Parking Lot Area North of Buffer Basin	SB-355	IDWP, GSIP, RDWP	6/28/1995	2	4	Chromium (Total)	66.3 N	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Parking Lot Area North of Buffer Basin	SB-355	IDWP, RDWP	6/28/1995	2	4	Aluminum	9,100	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.

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SUMMARY OF SITE SOIL DATA THAT EXCEED GENERIC MDEQ DRINKING WATER AND GSI PROTECTION CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Depth Start (feet)	Depth End (feet)	Analyte	Detected Concentration (mg/kg)	Comments
Parking Lot Area North of Buffer Basin	SB-355	IDWP, RDWP	6/28/1995	2	4	Iron	37,700	Excavated; samples were collected to characterize soils excavated in conjunction with buffer basin construction.
Parking lot east of main plant	PL-1	IDWP, GSIP, RDWP	8/10/2001	0.75	1.21	Cobalt	61	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Parking lot east of main plant	PL-1	IDWP, GSIP, RDWP	8/10/2001	0.75	1.21	Chromium (Total)	190	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Parking lot east of main plant	PL-1	IDWP, GSIP, RDWP	8/10/2001	0.75	1.21	Manganese	11,600	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Parking lot east of main plant	PL-1	IDWP, RDWP	8/10/2001	0.75	1.21	Aluminum	20,900	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Parking lot east of main plant	PL-1	IDWP, RDWP	8/10/2001	0.75	1.21	Iron	85,400	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Parking lot east of main plant	PL-1	RDWP	8/10/2001	0.75	1.21	Magnesium	9,100	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Parking lot east of main plant	PL-2	GSIP	8/10/2001	0.75	1.25	Cyanide, Total	1.1	Interior site area; GSI criteria do not apply.
Parking lot east of main plant	PL-2	IDWP, GSIP, RDWP	8/10/2001	0.75	1.25	Cobalt	26	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Parking lot east of main plant	PL-2	IDWP, GSIP, RDWP	8/10/2001	0.75	1.25	Cobalt	27	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Parking lot east of main plant	PL-2	IDWP, GSIP, RDWP	8/10/2001	0.75	1.25	Chromium (Total)	110	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Parking lot east of main plant	PL-2	IDWP, GSIP, RDWP	8/10/2001	0.75	1.25	Manganese	6,600	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Parking lot east of main plant	PL-2	IDWP, GSIP, RDWP	8/10/2001	0.75	1.25	Manganese	7,700	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Parking lot east of main plant	PL-2	IDWP, RDWP	8/10/2001	0.75	1.25	Aluminum	13,600	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Parking lot east of main plant	PL-2	IDWP, RDWP	8/10/2001	0.75	1.25	Aluminum	14,900	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Parking lot east of main plant	PL-2	IDWP, RDWP	8/10/2001	0.75	1.25	Iron	28,100	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Parking lot east of main plant	PL-2	IDWP, RDWP	8/10/2001	0.75	1.25	Iron	35,200	Restrictive Covenant prevents use of the groundwater as a drinking water source.

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Depth Start (feet)	Depth End (feet)	Analyte	Detected Concentration (mg/kg)	Comments
Parking lot east of main plant	PL-3	IDWP, GSIP, RDWP	8/10/2001	0.67	1.67	Cobalt	19	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Parking lot east of main plant	PL-3	IDWP, GSIP, RDWP	8/10/2001	0.67	1.67	Chromium (Total)	200	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Parking lot east of main plant	PL-3	IDWP, GSIP, RDWP	8/10/2001	0.67	1.67	Manganese	10,700	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Parking lot east of main plant	PL-3	IDWP, RDWP	8/10/2001	0.67	1.67	Aluminum	4,300	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Parking lot east of main plant	PL-3	IDWP, RDWP	8/10/2001	0.67	1.67	Iron	50,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Parking lot east of main plant	PL-4	GSIP	8/10/2001	0.75	1.5	Zinc	330	Interior site area; GSI criteria do not apply.
Parking lot east of main plant	PL-4	IDWP, GSIP, RDWP	8/10/2001	0.75	1.5	Thallium	3.6	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Parking lot east of main plant	PL-4	IDWP, GSIP, RDWP	8/10/2001	0.75	1.5	Chromium (Total)	40	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Parking lot east of main plant	PL-4	IDWP, GSIP, RDWP	8/10/2001	0.75	1.5	Cobalt	74	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Parking lot east of main plant	PL-4	IDWP, GSIP, RDWP	8/10/2001	0.75	1.5	Manganese	1,800	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Parking lot east of main plant	PL-4	IDWP, RDWP	8/10/2001	0.75	1.5	Aluminum	6,100	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Parking lot east of main plant	PL-4	IDWP, RDWP	8/10/2001	0.75	1.5	Iron	27,900	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previous Metal Feedstock Area	FS-1	GSIP	6/12/1995	0	1	Mercury	0.0881	Interior site area; GSI criteria do not apply.
Previous Metal Feedstock Area	FS-1	GSIP	6/12/1995	0	1	Chromium (Total)	18.9	Interior site area; GSI criteria do not apply.
Previous Metal Feedstock Area	FS-1	IDWP, GSIP, RDWP	6/12/1995	0	1	Manganese	398 J	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previous Metal Feedstock Area	FS-1	IDWP, RDWP	6/12/1995	0	1	Aluminum	2,390	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previous Metal Feedstock Area	FS-1	IDWP, RDWP	6/12/1995	0	1	Iron	28,600	Restrictive Covenant prevents use of the groundwater as a drinking water source.

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SUMMARY OF SITE SOIL DATA THAT EXCEED GENERIC MDEQ DRINKING WATER AND GSI PROTECTION CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Depth Start (feet)	Depth End (feet)	Analyte	Detected Concentration (mg/kg)	Comments
Previous Metal Feedstock Area	FS-2	GSIP	6/12/1995	0	1	Cyanide, Total	0.86	Interior site area; GSI criteria do not apply.
Previous Metal Feedstock Area	FS-2	GSIP	6/12/1995	0	1	Selenium	0.601 J	Interior site area; GSI criteria do not apply.
Previous Metal Feedstock Area	FS-2	IDWP, GSIP, RDWP	6/12/1995	0	1	Chromium (Total)	36.2	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previous Metal Feedstock Area	FS-2	IDWP, GSIP, RDWP	6/12/1995	0	1	Manganese	330 J	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previous Metal Feedstock Area	FS-2	IDWP, RDWP	6/12/1995	0	1	Aluminum	2,920	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previous Metal Feedstock Area	FS-2	IDWP, RDWP	6/12/1995	0	1	Iron	34,900	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previous Metal Feedstock Area	FS-3	IDWP, GSIP, RDWP	6/12/1995	0	1	Chromium (Total)	36.2	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previous Metal Feedstock Area	FS-3	IDWP, GSIP, RDWP	6/12/1995	0	1	Manganese	1,200 J	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previous Metal Feedstock Area	FS-3	IDWP, RDWP	6/12/1995	0	1	Aluminum	4,400	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previous Metal Feedstock Area	FS-3	IDWP, RDWP	6/12/1995	0	1	Iron	15,800	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previous Metal Feedstock Area	FS-4	GSIP	6/12/1995	0	1	Chromium (Total)	16.8	Interior site area; GSI criteria do not apply.
Previous Metal Feedstock Area	FS-4	IDWP, GSIP, RDWP	6/12/1995	0	1	Manganese	290 J	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previous Metal Feedstock Area	FS-4	IDWP, RDWP	6/12/1995	0	1	Aluminum	5,630	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previous Metal Feedstock Area	FS-4	IDWP, RDWP	6/12/1995	0	1	Iron	12,500	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previous Metal Feedstock Area	FS-5	GSIP	6/12/1995	0	1	Chromium (Total)	17.8	Interior site area; GSI criteria do not apply.
Previous Metal Feedstock Area	FS-5	IDWP, GSIP, RDWP	6/12/1995	0	1	Manganese	371 J	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previous Metal Feedstock Area	FS-5	IDWP, RDWP	6/12/1995	0	1	Aluminum	5,350	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previous Metal Feedstock Area	FS-5	IDWP, RDWP	6/12/1995	0	1	Iron	12,600	Restrictive Covenant prevents use of the groundwater as a drinking water source.

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SUMMARY OF SITE SOIL DATA THAT EXCEED GENERIC MDEQ DRINKING WATER AND GSI PROTECTION CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Depth Start (feet)	Depth End (feet)	Analyte	Detected Concentration (mg/kg)	Comments
Previous Metal Feedstock Area	FS-6	GSIP	6/12/1995	0	1	Chromium (Total)	11.8	Interior site area; GSI criteria do not apply.
Previous Metal Feedstock Area	FS-6	GSIP	6/12/1995	0	1	Chromium (Total)	12	Interior site area; GSI criteria do not apply.
Previous Metal Feedstock Area	FS-6	IDWP, GSIP, RDWP	6/12/1995	0	1	Manganese	174 J	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previous Metal Feedstock Area	FS-6	IDWP, GSIP, RDWP	6/12/1995	0	1	Manganese	280 J	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previous Metal Feedstock Area	FS-6	IDWP, RDWP	6/12/1995	0	1	Aluminum	3,330	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previous Metal Feedstock Area	FS-6	IDWP, RDWP	6/12/1995	0	1	Aluminum	3,670	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previous Metal Feedstock Area	FS-6	IDWP, RDWP	6/12/1995	0	1	Iron	10,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previous Metal Feedstock Area	FS-6	IDWP, RDWP	6/12/1995	0	1	Iron	10,900	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previous Metal Feedstock Area	FS-7	GSIP	6/12/1995	0	1	Chromium (Total)	10.5	Interior site area; GSI criteria do not apply.
Previous Metal Feedstock Area	FS-7	IDWP, GSIP, RDWP	6/12/1995	0	1	Manganese	162 J	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previous Metal Feedstock Area	FS-7	IDWP, RDWP	6/12/1995	0	1	Aluminum	2,680	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previous Metal Feedstock Area	FS-7	IDWP, RDWP	6/12/1995	0	1	Iron	10,600	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previous Metal Feedstock Area	FS-8	GSIP	6/12/1995	0	1	Chromium (Total)	25.9	Interior site area; GSI criteria do not apply.
Previous Metal Feedstock Area	FS-8	IDWP, GSIP, RDWP	6/12/1995	0	1	Manganese	681 J	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previous Metal Feedstock Area	FS-8	IDWP, RDWP	6/12/1995	0	1	Aluminum	6,750	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previous Metal Feedstock Area	FS-8	IDWP, RDWP	6/12/1995	0	1	Iron	13,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previous Metal Feedstock Area	MW-126WT	GSIP	2/8/1995	14	16	Chromium (Total)	23.8	Interior site area; GSI criteria do not apply.
Previous Metal Feedstock Area	MW-126WT	IDWP, GSIP, RDWP	2/8/1995	14	16	Cobalt	9.37	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	SB-396	GSIP	8/11/2000	0	0.5	Naphthalene	0.88	Interior site area; GSI criteria do not apply.

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Depth Start (feet)	Depth End (feet)	Analyte	Detected Concentration (mg/kg)	Comments
Previously Proposed Type III Landfill	SB-396	GSIP	8/11/2000	0	0.5	Selenium	1.9	Interior site area; GSI criteria do not apply.
Previously Proposed Type III Landfill	SB-396	GSIP	8/11/2000	0	0.5	Chromium (Total)	28.2	Interior site area; GSI criteria do not apply.
Previously Proposed Type III Landfill	SB-396	GSIP	8/11/2000	0	0.5	Zinc	432 J	Interior site area; GSI criteria do not apply.
Previously Proposed Type III Landfill	SB-396	IDWP, GSIP, RDWP	8/11/2000	0	0.5	Cobalt	4.4 B	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	SB-396	IDWP, GSIP, RDWP	8/11/2000	0	0.5	Manganese	404 J	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	SB-396	IDWP, RDWP	8/11/2000	0	0.5	Aluminum	11,500	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	SB-396	IDWP, RDWP	8/11/2000	0	0.5	Iron	28,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	SB-396	IDWP, RDWP	8/11/2000	0	0.5	Methylene chloride	0.3 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	SB-397	GSIP	8/11/2000	0	0.5	Selenium	0.91	Interior site area; GSI criteria do not apply.
Previously Proposed Type III Landfill	SB-397	GSIP	8/11/2000	0	0.5	Chromium (Total)	17.6	Interior site area; GSI criteria do not apply.
Previously Proposed Type III Landfill	SB-397	IDWP, GSIP, RDWP	8/11/2000	0	0.5	Manganese	281 J	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	SB-397	IDWP, GSIP, RDWP	8/11/2000	0	0.5	Cobalt	3.7 B	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	SB-397	IDWP, RDWP	8/11/2000	0	0.5	Aluminum	8,550	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	SB-397	IDWP, RDWP	8/11/2000	0	0.5	Iron	17,900	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	SB-406	GSIP	8/11/2000	0	0.5	Selenium	1.1	Interior site area; GSI criteria do not apply.
Previously Proposed Type III Landfill	SB-406	GSIP	8/11/2000	0	0.5	Cyanide, Total	0.35 B	Interior site area; GSI criteria do not apply.
Previously Proposed Type III Landfill	SB-406	GSIP	8/11/2000	0	0.5	Zinc	403 J	Interior site area; GSI criteria do not apply.
Previously Proposed Type III Landfill	SB-406	IDWP, GSIP, RDWP	8/11/2000	0	0.5	Chromium (Total)	32.9	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.

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SUMMARY OF SITE SOIL DATA THAT EXCEED GENERIC MDEQ DRINKING WATER AND GSI PROTECTION CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Depth Start (feet)	Depth End (feet)	Analyte	Detected Concentration (mg/kg)	Comments
Previously Proposed Type III Landfill	SB-406	IDWP, GSIP, RDWP	8/11/2000	0	0.5	Cobalt	4 B	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	SB-406	IDWP, GSIP, RDWP	8/11/2000	0	0.5	Manganese	678 J	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	SB-406	IDWP, RDWP	8/11/2000	0	0.5	Aluminum	7,940	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	SB-406	IDWP, RDWP	8/11/2000	0	0.5	Iron	22,900	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	SB-406	RDWP	8/11/2000	0	0.5	Magnesium	11,400	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	SB-412 (Composite of SB-407 through SB-411)	GSIP	8/11/2000	0	0.5	Chromium (Total)	24.4	Interior site area; GSI criteria do not apply.
Previously Proposed Type III Landfill	SB-412 (Composite of SB-407 through SB-411)	GSIP	8/11/2000	0	0.5	Mercury	0.066 B	Interior site area; GSI criteria do not apply.
Previously Proposed Type III Landfill	SB-412 (Composite of SB-407 through SB-411)	IDWP, GSIP, RDWP	8/11/2000	0	0.5	Manganese	341 J	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	SB-412 (Composite of SB-407 through SB-411)	IDWP, GSIP, RDWP	8/11/2000	0	0.5	Cobalt	7.8 B	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	SB-412 (Composite of SB-407 through SB-411)	IDWP, RDWP	8/11/2000	0	0.5	Aluminum	13,400	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	SB-412 (Composite of SB-407 through SB-411)	IDWP, RDWP	8/11/2000	0	0.5	Iron	21,700	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	SB-412 (Composite of SB-407 through SB-411)	RDWP	8/11/2000	0	0.5	Magnesium	13,200 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	SB-418 (Composite of SB-413 through SB-417)	GSIP	8/11/2000	0	0.5	Chromium (Total)	15.9	Interior site area; GSI criteria do not apply.
Previously Proposed Type III Landfill	SB-418 (Composite of SB-413 through SB-417)	GSIP	8/11/2000	0	0.5	Chromium (Total)	17.9	Interior site area; GSI criteria do not apply.
Previously Proposed Type III Landfill	SB-418 (Composite of SB-413 through SB-417)	IDWP, GSIP, RDWP	8/11/2000	0	0.5	Manganese	373 J	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	SB-418 (Composite of SB-413 through SB-417)	IDWP, GSIP, RDWP	8/11/2000	0	0.5	Manganese	419 J	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	SB-418 (Composite of SB-413 through SB-417)	IDWP, GSIP, RDWP	8/11/2000	0	0.5	Cobalt	5.6 B	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.

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SUMMARY OF SITE SOIL DATA THAT EXCEED GENERIC MDEQ DRINKING WATER AND GSI PROTECTION CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Depth Start (feet)	Depth End (feet)	Analyte	Detected Concentration (mg/kg)	Comments
Previously Proposed Type III Landfill	SB-418 (Composite of SB-413 through SB-417)	IDWP, GSIP, RDWP	8/11/2000	0	0.5	Cobalt	5.9 B	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	SB-418 (Composite of SB-413 through SB-417)	IDWP, RDWP	8/11/2000	0	0.5	Aluminum	8,960	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	SB-418 (Composite of SB-413 through SB-417)	IDWP, RDWP	8/11/2000	0	0.5	Aluminum	10,400	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	SB-418 (Composite of SB-413 through SB-417)	IDWP, RDWP	8/11/2000	0	0.5	Iron	14,800	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	SB-418 (Composite of SB-413 through SB-417)	IDWP, RDWP	8/11/2000	0	0.5	Iron	15,400	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	SB-418 (Composite of SB-413 through SB-417)	RDWP	8/11/2000	0	0.5	Magnesium	10,600 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	SB-418 (Composite of SB-413 through SB-417)	RDWP	8/11/2000	0	0.5	Magnesium	11,800 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	TP1	GSIP	5/22/1998	0	4	Chromium (Total)	16.6	Interior site area; GSI criteria do not apply.
Previously Proposed Type III Landfill	TP1	IDWP, GSIP, RDWP	5/22/1998	0	4	Manganese	1,190 L	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	TP1	IDWP, RDWP	5/22/1998	0	4	Aluminum	4,910	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	TP1	IDWP, RDWP	5/22/1998	0	4	Iron	15,400 L	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	TP1	GSIP	5/22/1998	4	8	Selenium	0.72	Interior site area; GSI criteria do not apply.
Previously Proposed Type III Landfill	TP1	GSIP	5/22/1998	4	8	Chromium (Total)	13.9	Interior site area; GSI criteria do not apply.
Previously Proposed Type III Landfill	TP1	IDWP, GSIP, RDWP	5/22/1998	4	8	Manganese	272	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	TP1	IDWP, RDWP	5/22/1998	4	8	Aluminum	5,490	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	TP1	RDWP	5/22/1998	4	8	Iron	13,200	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	TP2	GSIP	5/22/1998	0	4	Selenium	1	Interior site area; GSI criteria do not apply.
Previously Proposed Type III Landfill	TP2	GSIP	5/22/1998	0	4	Chromium (Total)	16.2	Interior site area; GSI criteria do not apply.
Previously Proposed Type III Landfill	TP2	IDWP, GSIP, RDWP	5/22/1998	0	4	Manganese	316	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Depth Start (feet)	Depth End (feet)	Analyte	Detected Concentration (mg/kg)	Comments
Previously Proposed Type III Landfill	TP2	IDWP, RDWP	5/22/1998	0	4	Aluminum	6,320	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	TP2	IDWP, RDWP	5/22/1998	0	4	Iron	15,900	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	TP2	GSIP	5/22/1998	4	8	Chromium (Total)	13.4	Interior site area; GSI criteria do not apply.
Previously Proposed Type III Landfill	TP2	GSIP	5/22/1998	4	8	Manganese	247	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	TP2	IDWP, GSIP, RDWP	5/22/1998	4	8	Manganese	247	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	TP2	IDWP, RDWP	5/22/1998	4	8	Aluminum	4,860	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	TP2	IDWP, RDWP	5/22/1998	4	8	Iron	14,400	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	TP3	GSIP	5/22/1998	0	4	Chromium (Total)	9.9	Interior site area; GSI criteria do not apply.
Previously Proposed Type III Landfill	TP3	IDWP, GSIP, RDWP	5/22/1998	0	4	Manganese	220	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	TP3	IDWP, RDWP	5/22/1998	0	4	Aluminum	4,160	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	TP3	IDWP, RDWP	5/22/1998	0	4	Iron	11,100	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	TP3	GSIP	5/22/1998	4	8	Naphthalene	0.88	Interior site area; GSI criteria do not apply.
Previously Proposed Type III Landfill	TP3	GSIP	5/22/1998	4	8	Chromium (Total)	9.9	Interior site area; GSI criteria do not apply.
Previously Proposed Type III Landfill	TP3	IDWP, GSIP, RDWP	5/22/1998	4	8	Manganese	226	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	TP3	IDWP, RDWP	5/22/1998	4	8	Aluminum	4,380	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	TP3	IDWP, RDWP	5/22/1998	4	8	Iron	11,100	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	TP4	GSIP	5/22/1998	0	4	Chromium (Total)	13.1	Interior site area; GSI criteria do not apply.
Previously Proposed Type III Landfill	TP4	GSIP	5/22/1998	0	4	Zinc	263	Interior site area; GSI criteria do not apply.
Previously Proposed Type III Landfill	TP4	IDWP, GSIP, RDWP	5/22/1998	0	4	Manganese	280	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.

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SUMMARY OF SITE SOIL DATA THAT EXCEED GENERIC MDEQ DRINKING WATER AND GSI PROTECTION CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Depth Start (feet)	Depth End (feet)	Analyte	Detected Concentration (mg/kg)	Comments
Previously Proposed Type III Landfill	TP4	IDWP, RDWP	5/22/1998	0	4	Aluminum	4,390	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	TP4	IDWP, RDWP	5/22/1998	0	4	Iron	12,900	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	TP4	GSIP	5/22/1998	4	8	Naphthalene	0.92	Interior site area; GSI criteria do not apply.
Previously Proposed Type III Landfill	TP4	GSIP	5/22/1998	4	8	Chromium (Total)	13	Interior site area; GSI criteria do not apply.
Previously Proposed Type III Landfill	TP4	IDWP, GSIP, RDWP	5/22/1998	4	8	Manganese	198	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	TP4	IDWP, RDWP	5/22/1998	4	8	Aluminum	4,630	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	TP4	IDWP, RDWP	5/22/1998	4	8	Iron	13,500	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	TP5	GSIP	5/22/1998	0	4	Chromium (Total)	12.6	Interior site area; GSI criteria do not apply.
Previously Proposed Type III Landfill	TP5	GSIP	5/22/1998	0	4	Zinc	409	Interior site area; GSI criteria do not apply.
Previously Proposed Type III Landfill	TP5	IDWP, GSIP, RDWP	5/22/1998	0	4	Manganese	250	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	TP5	IDWP, RDWP	5/22/1998	0	4	Aluminum	4,090	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	TP5	IDWP, RDWP	5/22/1998	0	4	Iron	13,600	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	TP5	GSIP	5/22/1998	4	8	Chromium (Total)	14.5	Interior site area; GSI criteria do not apply.
Previously Proposed Type III Landfill	TP5	GSIP	5/22/1998	4	8	Zinc	505	Interior site area; GSI criteria do not apply.
Previously Proposed Type III Landfill	TP5	IDWP, GSIP, RDWP	5/22/1998	4	8	Manganese	207	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	TP5	IDWP, RDWP	5/22/1998	4	8	Aluminum	4,380	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	TP5	IDWP, RDWP	5/22/1998	4	8	Iron	13,800	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	TP6	GSIP	5/22/1998	0	4	Naphthalene	1.1	Interior site area; GSI criteria do not apply.
Previously Proposed Type III Landfill	TP6	GSIP	5/22/1998	0	4	Chromium (Total)	17.7	Interior site area; GSI criteria do not apply.
Previously Proposed Type III Landfill	TP6	GSIP	5/22/1998	0	4	Zinc	351	Interior site area; GSI criteria do not apply.

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SUMMARY OF SITE SOIL DATA THAT EXCEED GENERIC MDEQ DRINKING WATER AND GSI PROTECTION CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Depth Start (feet)	Depth End (feet)	Analyte	Detected Concentration (mg/kg)	Comments
Previously Proposed Type III Landfill	TP6	IDWP, GSIP, RDWP	5/22/1998	0	4	Manganese	410	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	TP6	IDWP, RDWP	5/22/1998	0	4	Aluminum	6,600	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	TP6	IDWP, RDWP	5/22/1998	0	4	Iron	18,100	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	TP6	GSIP	5/22/1998	4	8	Naphthalene	1.1	Interior site area; GSI criteria do not apply.
Previously Proposed Type III Landfill	TP6	GSIP	5/22/1998	4	8	Chromium (Total)	12.5	Interior site area; GSI criteria do not apply.
Previously Proposed Type III Landfill	TP6	IDWP, GSIP, RDWP	5/22/1998	4	8	Manganese	248	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	TP6	IDWP, RDWP	5/22/1998	4	8	Aluminum	5,150	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	TP6	IDWP, RDWP	5/22/1998	4	8	Iron	13,100	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	TP7	GSIP	5/22/1998	0	4	Chromium (Total)	28.7	Interior site area; GSI criteria do not apply.
Previously Proposed Type III Landfill	TP7	GSIP	5/22/1998	0	4	Zinc	555	Interior site area; GSI criteria do not apply.
Previously Proposed Type III Landfill	TP7	IDWP, GSIP, RDWP	5/22/1998	0	4	Manganese	424	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	TP7	IDWP, RDWP	5/22/1998	0	4	Aluminum	7,100	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	TP7	IDWP, RDWP	5/22/1998	0	4	Iron	23,400	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Primary Settling Pond	BH7	GSIP	3/6/2007	0	2	Chromium Total	26.3	Interior site area; GSI criteria do not apply.
Primary Settling Pond	BH7	GSIP	3/6/2007	2	4	Selenium	0.5	Interior site area; GSI criteria do not apply.
Queen St Dump	SB-319	GSIP	6/13/1995	14	16	Phenanthrene	7.7 J	Interior site area; GSI criteria do not apply.
Railyard	RS-1	GSIP	6/13/1995	0	1	Mercury	0.109	Interior site area; GSI criteria do not apply.
Railyard	RS-1	GSIP	6/13/1995	0	1	Selenium	1.6 J	Interior site area; GSI criteria do not apply.
Railyard	RS-1	IDWP, GSIP, RDWP	6/13/1995	0	1	Cobalt	8.52	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Railyard	RS-1	IDWP, GSIP, RDWP	6/13/1995	0	1	Chromium (Total)	60.3	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Railyard	RS-1	IDWP, GSIP, RDWP	6/13/1995	0	1	Manganese	955 J	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.

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SUMMARY OF SITE SOIL DATA THAT EXCEED GENERIC MDEQ DRINKING WATER AND GSI PROTECTION CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Depth Start (feet)	Depth End (feet)	Analyte	Detected Concentration (mg/kg)	Comments
Railyard	RS-1	IDWP, RDWP	6/13/1995	0	1	Aluminum	3,870	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Railyard	RS-1	IDWP, RDWP	6/13/1995	0	1	Iron	45,400	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Railyard	RS-2	GSIP	6/13/1995	0	1	Mercury	0.546	Interior site area; GSI criteria do not apply.
Railyard	RS-2	GSIP	6/13/1995	0	1	Copper	274	Interior site area; GSI criteria do not apply.
Railyard	RS-2	GSIP, RDWP	6/13/1995	0	1	Zinc	2,630	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Railyard	RS-2	IDWP, GSIP, RDWP	6/13/1995	0	1	Cadmium	6.38	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Railyard	RS-2	IDWP, GSIP, RDWP	6/13/1995	0	1	Cobalt	143	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Railyard	RS-2	IDWP, GSIP, RDWP	6/13/1995	0	1	Nickel	1,010	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Railyard	RS-2	IDWP, GSIP, RDWP	6/13/1995	0	1	Chromium (Total)	1,110	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Railyard	RS-2	IDWP, GSIP, RDWP	6/13/1995	0	1	Manganese	3,320 J	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Railyard	RS-2	IDWP, GSIP, RDWP	6/13/1995	0	1	Selenium	4.31 J	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Railyard	RS-2	IDWP, RDWP	6/13/1995	0	1	Aluminum	6,630	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Railyard	RS-2	IDWP, RDWP	6/13/1995	0	1	Iron	12,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Railyard	RS-2	IDWP, RDWP	6/13/1995	0	1	Antimony	5.89 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Railyard	RS-2-5	IDWP, RDWP	6/10/1996	0	1	Lead	769 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Railyard	RS-2-6	IDWP, RDWP	6/10/1996	0	1	Lead	1,370 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Railyard	RS-3	GSIP	6/13/1995	0	1	Mercury	0.367	Interior site area; GSI criteria do not apply.
Railyard	RS-3	GSIP	6/13/1995	0	1	Zinc	448	Interior site area; GSI criteria do not apply.
Railyard	RS-3	IDWP, GSIP, RDWP	6/13/1995	0	1	Cobalt	44.6	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Depth Start (feet)	Depth End (feet)	Analyte	Detected Concentration (mg/kg)	Comments
Railyard	RS-3	IDWP, GSIP, RDWP	6/13/1995	0	1	Nickel	271	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Railyard	RS-3	IDWP, GSIP, RDWP	6/13/1995	0	1	Chromium (Total)	273	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Railyard	RS-3	IDWP, GSIP, RDWP	6/13/1995	0	1	Manganese	5,030 J	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Railyard	RS-3	IDWP, RDWP	6/13/1995	0	1	Aluminum	8,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Railyard	RS-3	IDWP, RDWP	6/13/1995	0	1	Iron	43,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Railyard	RS-4	GSIP	6/13/1995	0	1	Mercury	0.102	Interior site area; GSI criteria do not apply.
Railyard	RS-4	GSIP	6/13/1995	0	1	Selenium	2	Interior site area; GSI criteria do not apply.
Railyard	RS-4	GSIP	6/13/1995	0	1	Selenium	2.35	Interior site area; GSI criteria do not apply.
Railyard	RS-4	IDWP, GSIP, RDWP	6/13/1995	0	1	Cobalt	15.6	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Railyard	RS-4	IDWP, GSIP, RDWP	6/13/1995	0	1	Cobalt	15.8	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Railyard	RS-4	IDWP, GSIP, RDWP	6/13/1995	0	1	Manganese	300	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Railyard	RS-4	IDWP, GSIP, RDWP	6/13/1995	0	1	Manganese	463	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Railyard	RS-4	IDWP, GSIP, RDWP	6/13/1995	0	1	Chromium (Total)	62.3 J	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Railyard	RS-4	IDWP, GSIP, RDWP	6/13/1995	0	1	Chromium (Total)	62.8 J	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Railyard	RS-4	IDWP, RDWP	6/13/1995	0	1	Iron	14,400 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Railyard	RS-4	IDWP, RDWP	6/13/1995	0	1	Aluminum	2,920 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Railyard	RS-4	IDWP, RDWP	6/13/1995	0	1	Iron	22,400 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Railyard	RS-4	IDWP, RDWP	6/13/1995	0	1	Aluminum	3,710 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Depth Start (feet)	Depth End (feet)	Analyte	Detected Concentration (mg/kg)	Comments
Railyard	RS-5	GSIP	6/13/1995	0	1	Mercury	0.111	Interior site area; GSI criteria do not apply. The area around soil sample RS-5 was excavated to remove PCB impacted soil, post excavation samples were analyzed for PCBs only.
Railyard	RS-5	GSIP	6/13/1995	0	1	Cyanide, Total	0.32	Interior site area; GSI criteria do not apply. The area around soil sample RS-5 was excavated to remove PCB impacted soil, post excavation samples were analyzed for PCBs only.
Railyard	RS-5	GSIP	6/13/1995	0	1	Selenium	1.95	Interior site area; GSI criteria do not apply. The area around soil sample RS-5 was excavated to remove PCB impacted soil, post excavation samples were analyzed for PCBs only.
Railyard	RS-5	IDWP, GSIP, RDWP	6/13/1995	0	1	Cobalt	21.7	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source. The area around soil sample RS-5 was excavated to remove PCB impacted soil, post excavation samples were analyzed for PCBs only.
Railyard	RS-5	IDWP, GSIP, RDWP	6/13/1995	0	1	Manganese	446	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source. The area around soil sample RS-5 was excavated to remove PCB impacted soil, post excavation samples were analyzed for PCBs only.
Railyard	RS-5	IDWP, GSIP, RDWP	6/13/1995	0	1	Arsenic	31.1 J	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source. The area around soil sample RS-5 was excavated to remove PCB impacted soil, post excavation samples were analyzed for PCBs only.
Railyard	RS-5	IDWP, GSIP, RDWP	6/13/1995	0	1	Chromium (Total)	99.7 J	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source. The area around soil sample RS-5 was excavated to remove PCB impacted soil, post excavation samples were analyzed for PCBs only.
Railyard	RS-5	IDWP, RDWP	6/13/1995	0	1	Nickel	106 J	Restrictive Covenant prevents use of the groundwater as a drinking water source. The area around soil sample RS-5 was excavated to remove PCB impacted soil, post excavation samples were analyzed for PCBs only.
Railyard	RS-5	IDWP, RDWP	6/13/1995	0	1	Iron	18,400 J	Restrictive Covenant prevents use of the groundwater as a drinking water source. The area around soil sample RS-5 was excavated to remove PCB impacted soil, post excavation samples were analyzed for PCBs only.

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SUMMARY OF SITE SOIL DATA THAT EXCEED GENERIC MDEQ DRINKING WATER AND GSI PROTECTION CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Depth Start (feet)	Depth End (feet)	Analyte	Detected Concentration (mg/kg)	Comments
Railyard	RS-5	IDWP, RDWP	6/13/1995	0	1	Aluminum	3,590 J	Restrictive Covenant prevents use of the groundwater as a drinking water source. The area around soil sample RS-5 was excavated to remove PCB impacted soil, post excavation samples were analyzed for PCBs only.
Railyard	RS-6	GSIP	6/13/1995	0	1	Mercury	0.143	Interior site area; GSI criteria do not apply.
Railyard	RS-6	GSIP	6/13/1995	0	1	Cyanide, Total	0.27	Interior site area; GSI criteria do not apply.
Railyard	RS-6	GSIP	6/13/1995	0	1	Zinc	306	Interior site area; GSI criteria do not apply.
Railyard	RS-6	IDWP, GSIP, RDWP	6/13/1995	0	1	Cobalt	36.5	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Railyard	RS-6	IDWP, GSIP, RDWP	6/13/1995	0	1	Manganese	2,020	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Railyard	RS-6	IDWP, GSIP, RDWP	6/13/1995	0	1	Nickel	198 J	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Railyard	RS-6	IDWP, GSIP, RDWP	6/13/1995	0	1	Chromium (Total)	205 J	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Railyard	RS-6	IDWP, RDWP	6/13/1995	0	1	Iron	50,100 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Railyard	RS-6	IDWP, RDWP	6/13/1995	0	1	Aluminum	7,160 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Railyard	RS-7	GSIP	6/13/1995	0	1	Cyanide, Total	0.48	Interior site area; GSI criteria do not apply.
Railyard	RS-7	GSIP	6/13/1995	0	1	Naphthalene	1	Interior site area; GSI criteria do not apply.
Railyard	RS-7	GSIP	6/13/1995	0	1	Selenium	3.34	Interior site area; GSI criteria do not apply.
Railyard	RS-7	IDWP, GSIP, RDWP	6/13/1995	0	1	Cobalt	9.53	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Railyard	RS-7	IDWP, GSIP, RDWP	6/13/1995	0	1	Manganese	551	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Railyard	RS-7	IDWP, GSIP, RDWP	6/13/1995	0	1	Chromium (Total)	66.3 J	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Railyard	RS-7	IDWP, RDWP	6/13/1995	0	1	Aluminum	1,280 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Railyard	RS-7	IDWP, RDWP	6/13/1995	0	1	Iron	79,100 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Railyard	RS-8	GSIP	6/13/1995	0	1	Mercury	0.0709	Interior site area; GSI criteria do not apply.
Railyard	RS-8	GSIP	6/13/1995	0	1	Cyanide, Total	0.31	Interior site area; GSI criteria do not apply.
Railyard	RS-8	GSIP	6/13/1995	0	1	Zinc	566	Interior site area; GSI criteria do not apply.

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TABLE 2-2

SUMMARY OF SITE SOIL DATA THAT EXCEED GENERIC MDEQ DRINKING WATER AND GSI PROTECTION CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Depth Start (feet)	Depth End (feet)	Analyte	Detected Concentration (mg/kg)	Comments
Railyard	RS-8	IDWP, GSIP, RDWP	6/13/1995	0	1	Cobalt	17	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Railyard	RS-8	IDWP, GSIP, RDWP	6/13/1995	0	1	Manganese	2,060	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Railyard	RS-8	IDWP, GSIP, RDWP	6/13/1995	0	1	Chromium (Total)	141 J	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Railyard	RS-8	IDWP, GSIP, RDWP	6/13/1995	0	1	Nickel	152 J	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Railyard	RS-8	IDWP, RDWP	6/13/1995	0	1	Iron	28,000 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Railyard	RS-8	IDWP, RDWP	6/13/1995	0	1	Aluminum	5,510 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Railyard Area	BH11	GSIP	3/6/2007	2	4	Chromium Total	21.6	Interior site area; GSI criteria do not apply.
Railyard Area	BH11	IDWP, RDWP, GSIP	3/6/2007	0	2	Chromium Total	95.8	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Railyard Area	BH11	IDWP, RDWP, GSIP	3/6/2007	0	2	Cobalt	11.5	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Railyard Area	BH11	IDWP, RDWP, GSIP	3/6/2007	2	4	Cobalt	8.4	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Railyard Area	BH11	IDWP, RDWP, GSIP	3/6/2007	0	2	Manganese	2540	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Railyard Area	BH11	GSIP	3/6/2007	0	2	Total Xylenes	1.2	Interior site area; GSI criteria do not apply.
Railyard Area	BH11	GSIP	3/6/2007	0	2	Zinc	473	Interior site area; GSI criteria do not apply.
Railyard Area	BH12	IDWP, RDWP, GSIP	3/6/2007	2	4	Chromium Total	137	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Railyard Area	BH12	IDWP, RDWP, GSIP	3/6/2007	0	2	Chromium Total	918 [572]	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Railyard Area	BH12	IDWP, RDWP, GSIP	3/6/2007	0	2	Cobalt	111 [38.7]	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Railyard Area	BH12	GSIP	3/6/2007	0	2	Copper	387 J	Interior site area; GSI criteria do not apply.

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SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Depth Start (feet)	Depth End (feet)	Analyte	Detected Concentration (mg/kg)	Comments
Railyard Area	BH12	IDWP, RDWP, GSIP	3/6/2007	0	2	Manganese	7380 [6770]	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Railyard Area	BH12	IDWP, RDWP, GSIP	3/6/2007	2	4	Manganese	7470	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Railyard Area	BH12	GSIP	3/6/2007	0	2	Mercury	0.97 J [0.22 J]	Interior site area; GSI criteria do not apply.
Railyard Area	BH12	IDWP, RDWP, GSIP	3/6/2007	0	2	Nickel	787 [384]	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Railyard Area	BH12	GSIP	3/6/2007	0	2	Silver	1.2J	Interior site area; GSI criteria do not apply.
Railyard Area	BH12	GSIP	3/6/2007	0	2	Zinc	355 [421]	Interior site area; GSI criteria do not apply.
River Berm	MW-183WT	GSIP	7/24/2000	8	8.5	Chromium (Total)	10.4	Chromium was not detected above GSI in groundwater samples collected from permanent monitoring wells in area.
River Berm	MW-183WT	IDWP, GSIP, RDWP	7/24/2000	8	8.5	Manganese	333	Manganese was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Restrictive covenant prevents use of the groundwater was a drinking water source.
River Berm	MW-183WT	IDWP, GSIP, RDWP	7/24/2000	8	8.5	Cobalt	3.7 B	Cobalt was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm	MW-183WT	IDWP, RDWP	7/24/2000	8	8.5	Aluminum	4,830	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm	MW-183WT	IDWP, RDWP	7/24/2000	8	8.5	Iron	11,800	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm	MW-183WT	RDWP	7/24/2000	8	8.5	Magnesium	11,600	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-374	GSIP	7/24/2000	9.5	10.5	Selenium	0.76	Selenium was not detected above GSI in groundwater samples collected from permanent monitoring wells in area.
River Berm Area	SB-374	GSIP	7/24/2000	9.5	10.5	Chromium (Total)	14.9	Chromium was not detected above GSI in groundwater samples collected from permanent monitoring wells in area.
River Berm Area	SB-374	GSIP	7/24/2000	9.5	10.5	Mercury	0.23 J	Mercury was not detected above GSI in groundwater samples collected from permanent monitoring wells in area.
River Berm Area	SB-374	IDWP, GSIP, RDWP	7/24/2000	9.5	10.5	Manganese	450	Manganese was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Restrictive covenant prevents use of the groundwater was a drinking water source.

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SUMMARY OF SITE SOIL DATA THAT EXCEED GENERIC MDEQ DRINKING WATER AND GSI PROTECTION CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Depth Start (feet)	Depth End (feet)	Analyte	Detected Concentration (mg/kg)	Comments
River Berm Area	SB-374	IDWP, GSIP, RDWP	7/24/2000	9.5	10.5	Cobalt	5.5 B	Cobalt was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-374	IDWP, RDWP	7/24/2000	9.5	10.5	Aluminum	7,080	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-374	IDWP, RDWP	7/24/2000	9.5	10.5	Iron	16,500	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-374	RDWP	7/24/2000	9.5	10.5	Magnesium	17,300	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-375	GSIP	7/24/2000	6.5	7.5	Chromium (Total)	9.7	Groundwater samples collected at MW-112WT did not indicate impacts to groundwater.
River Berm Area	SB-375	GSIP	7/24/2000	6.5	7.5	Manganese	360	Groundwater samples collected at MW-112WT did not indicate impacts to groundwater.
River Berm Area	SB-375	GSIP	7/24/2000	6.5	7.5	Selenium	0.53 B	Selenium was not detected above GSI in groundwater samples collected from permanent monitoring wells in area.
River Berm Area	SB-375	GSIP	7/24/2000	6.5	7.5	Selenium	0.6 B	Selenium was not detected above GSI in groundwater samples collected from permanent monitoring wells in area.
River Berm Area	SB-375	GSIP	7/24/2000	6.5	7.5	Chromium (Total)	10.4 J	Groundwater samples collected at MW-112WT did not indicate impacts to groundwater.
River Berm Area	SB-375	IDWP, GSIP, RDWP	7/24/2000	6.5	7.5	Cobalt	3.9 B	Cobalt was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-375	IDWP, GSIP, RDWP	7/24/2000	6.5	7.5	Cobalt	4.5 B	Cobalt was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-375	IDWP, GSIP, RDWP	7/24/2000	6.5	7.5	Manganese	476 J	Groundwater samples collected at MW-112WT did not indicate impacts to groundwater.
River Berm Area	SB-375	IDWP, RDWP	7/24/2000	6.5	7.5	Manganese	360	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-375	IDWP, RDWP	7/24/2000	6.5	7.5	Aluminum	4,160	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-375	IDWP, RDWP	7/24/2000	6.5	7.5	Iron	10,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-375	IDWP, RDWP	7/24/2000	6.5	7.5	Iron	10,200	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-375	RDWP	7/24/2000	6.5	7.5	Magnesium	11,800	Restrictive Covenant prevents use of the groundwater as a drinking water source.

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SUMMARY OF SITE SOIL DATA THAT EXCEED GENERIC MDEQ DRINKING WATER AND GSI PROTECTION CRITERIA

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Depth Start (feet)	Depth End (feet)	Analyte	Detected Concentration (mg/kg)	Comments
River Berm Area	SB-375	RDWP	7/24/2000	6.5	7.5	Magnesium	12,900	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-376	GSIP	7/25/2000	7	8	Selenium	1.2	Selenium was not detected above GSI in groundwater samples collected from permanent monitoring wells in area.
River Berm Area	SB-376	GSIP	7/25/2000	7	8	Chromium (Total)	11.5 J	Chromium was not detected above GSI in groundwater samples collected from permanent monitoring wells in area.
River Berm Area	SB-376	IDWP, GSIP, RDWP	7/25/2000	7	8	Manganese	266 J	Manganese was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Restrictive covenant prevents use of the groundwater was a drinking water source.
River Berm Area	SB-376	IDWP, GSIP, RDWP	7/25/2000	7	8	Cobalt	4 B	Cobalt was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-376	IDWP, RDWP	7/25/2000	7	8	Aluminum	5,500	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-376	IDWP, RDWP	7/25/2000	7	8	Iron	9,280	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-376	RDWP	7/25/2000	7	8	Magnesium	13,700	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-377	GSIP	7/25/2000	0	0.5	Selenium	1.3	Selenium was not detected above GSI in groundwater samples collected from permanent monitoring wells in area.
River Berm Area	SB-377	GSIP	7/25/2000	0	0.5	Chromium (Total)	24.6	Chromium was not detected above GSI in groundwater samples collected from permanent monitoring wells in area.
River Berm Area	SB-377	IDWP, GSIP, RDWP	7/25/2000	0	0.5	Cobalt	7.1	Cobalt was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-377	IDWP, GSIP, RDWP	7/25/2000	0	0.5	Manganese	527	Manganese was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Restrictive covenant prevents use of the groundwater was a drinking water source.
River Berm Area	SB-377	IDWP, RDWP	7/25/2000	0	0.5	Aluminum	13,700	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-377	IDWP, RDWP	7/25/2000	0	0.5	Iron	18,800	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-377	GSIP	7/25/2000	0.5	1	Selenium	0.68	Selenium was not detected above GSI in groundwater samples collected from permanent monitoring wells in area.

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SUMMARY OF SITE SOIL DATA THAT EXCEED GENERIC MDEQ DRINKING WATER AND GSI PROTECTION CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Depth Start (feet)	Depth End (feet)	Analyte	Detected Concentration (mg/kg)	Comments
River Berm Area	SB-377	GSIP	7/25/2000	0.5	1	Selenium	2.9	Selenium was not detected above GSI in groundwater samples collected from permanent monitoring wells in area.
River Berm Area	SB-377	GSIP	7/25/2000	0.5	1	Silver	0.22 B	Silver was not detected above GSI in groundwater samples collected from permanent monitoring wells in area.
River Berm Area	SB-377	IDWP, GSIP, RDWP	7/25/2000	0.5	1	Cobalt	6.3	Cobalt was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-377	IDWP, GSIP, RDWP	7/25/2000	0.5	1	Chromium (Total)	31.9	Chromium was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-377	IDWP, GSIP, RDWP	7/25/2000	0.5	1	Manganese	3,510	Manganese was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Restrictive covenant prevents use of the groundwater was a drinking water source.
River Berm Area	SB-377	IDWP, GSIP, RDWP	7/25/2000	0.5	1	Manganese	1,690 J	Manganese was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Restrictive covenant prevents use of the groundwater was a drinking water source.
River Berm Area	SB-377	IDWP, GSIP, RDWP	7/25/2000	0.5	1	Cobalt	3 B	Cobalt was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Restrictive covenant prevents use of the groundwater was a drinking water source.
River Berm Area	SB-377	IDWP, GSIP, RDWP	7/25/2000	0.5	1	Chromium (Total)	39.1 J	Chromium was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-377	IDWP, RDWP	7/25/2000	0.5	1	Aluminum	4,060	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-377	IDWP, RDWP	7/25/2000	0.5	1	Aluminum	11,400	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-377	IDWP, RDWP	7/25/2000	0.5	1	Iron	18,200	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-377	IDWP, RDWP	7/25/2000	0.5	1	Iron	38,400	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-378	GSIP	7/25/2000	0	0.5	Selenium	0.84	Selenium was not detected above GSI in groundwater samples collected from permanent monitoring wells in area.

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SUMMARY OF SITE SOIL DATA THAT EXCEED GENERIC MDEQ DRINKING WATER AND GSI PROTECTION CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Depth Start (feet)	Depth End (feet)	Analyte	Detected Concentration (mg/kg)	Comments
River Berm Area	SB-378	IDWP, GSIP, RDWP	7/25/2000	0	0.5	Chromium (Total)	31.5	Chromium was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-378	IDWP, GSIP, RDWP	7/25/2000	0	0.5	Manganese	1,330	Manganese was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Restrictive covenant prevents use of the groundwater was a drinking water source.
River Berm Area	SB-378	IDWP, GSIP, RDWP	7/25/2000	0	0.5	Cobalt	2.8 B	Cobalt was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-378	IDWP, RDWP	7/25/2000	0	0.5	Aluminum	6,300	Restrictive Covenant prevents use of the groundwater as a drinking water source. Soils excavated in this area due to elevated Mn concentrations
River Berm Area	SB-378	IDWP, RDWP	7/25/2000	0	0.5	Iron	13,800	Restrictive Covenant prevents use of the groundwater as a drinking water source. Soils excavated in this area due to elevated Mn concentrations
River Berm Area	SB-378	GSIP	7/25/2000	0.5	1	Silver	0.54 B G	Silver was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Soils excavated in this area due to elevated Mn concentrations.
River Berm Area	SB-378	GSIP	7/25/2000	0.5	1	Selenium	1 B G	Selenium was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Soils excavated in this area due to elevated Mn concentrations.
River Berm Area	SB-378	IDWP, GSIP, RDWP	7/25/2000	0.5	1	Chromium (Total)	245	Chromium was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Restrictive Covenant prevents use of the groundwater as a drinking water source. Soils excavated in this area due to elevated Mn concentrations
River Berm Area	SB-378	IDWP, GSIP, RDWP	7/25/2000	0.5	1	Manganese	23,100	Manganese was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Restrictive covenant prevents use of the groundwater was a drinking water source.
River Berm Area	SB-378	IDWP, GSIP, RDWP	7/25/2000	0.5	1	Cobalt	3.2 B	Cobalt was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Restrictive Covenant prevents use of the groundwater as a drinking water source. Soils excavated in this area due to elevated Mn concentrations

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Depth Start (feet)	Depth End (feet)	Analyte	Detected Concentration (mg/kg)	Comments
River Berm Area	SB-378	IDWP, GSIP, RDWP	7/25/2000	0.5	1	Thallium	3.3 B G	Thallium was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Restrictive Covenant prevents use of the groundwater as a drinking water source. Soils excavated in this area due to elevated Mn concentrations
River Berm Area	SB-378	IDWP, RDWP	7/25/2000	0.5	1	Aluminum	22,500	Restrictive Covenant prevents use of the groundwater as a drinking water source. Soils excavated in this area due to elevated Mn concentrations
River Berm Area	SB-378	IDWP, RDWP	7/25/2000	0.5	1	Iron	37,200	Restrictive Covenant prevents use of the groundwater as a drinking water source. Soils excavated in this area due to elevated Mn concentrations
River Berm Area	SB-379	GSIP	7/25/2000	0	0.5	Selenium	1.2	Selenium was not detected above GSI in groundwater samples collected from permanent monitoring wells in area.
River Berm Area	SB-379	GSIP	7/25/2000	0	0.5	Mercury	0.054 B J	Mercury was not detected above GSI in groundwater samples collected from permanent monitoring wells in area.
River Berm Area	SB-379	IDWP, GSIP, RDWP	7/25/2000	0	0.5	Chromium (Total)	36.7	Chromium was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-379	IDWP, GSIP, RDWP	7/25/2000	0	0.5	Manganese	1,350	Manganese was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Restrictive covenant prevents use of the groundwater was a drinking water source.
River Berm Area	SB-379	IDWP, GSIP, RDWP	7/25/2000	0	0.5	Cobalt	4.7 B	Cobalt was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-379	IDWP, RDWP	7/25/2000	0	0.5	Aluminum	9,030	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-379	IDWP, RDWP	7/25/2000	0	0.5	Iron	17,500	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-379	GSIP	7/25/2000	0.5	1	Selenium	0.56	Selenium was not detected above GSI in groundwater samples collected from permanent monitoring wells in area.
River Berm Area	SB-379	GSIP	7/25/2000	0.5	1	Silver	0.18 B	Silver was not detected above GSI in groundwater samples collected from permanent monitoring wells in area.

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Depth Start (feet)	Depth End (feet)	Analyte	Detected Concentration (mg/kg)	Comments
River Berm Area	SB-379	IDWP, GSIP, RDWP	7/25/2000	0.5	1	Chromium (Total)	31.5	Chromium was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-379	IDWP, GSIP, RDWP	7/25/2000	0.5	1	Manganese	2,250	Manganese was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Restrictive covenant prevents use of the groundwater was a drinking water source.
River Berm Area	SB-379	IDWP, RDWP	7/25/2000	0.5	1	Aluminum	4,390	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-379	IDWP, RDWP	7/25/2000	0.5	1	Iron	9,800	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-379	RDWP	7/25/2000	0.5	1	Cobalt	1.3 B	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-380	GSIP	7/25/2000	0	0.5	Selenium	1.2	Selenium was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Soils excavated in this area due to elevated Mn concentrations
River Berm Area	SB-380	GSIP	7/25/2000	0	0.5	Mercury	0.056 B J	Mercury was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Soils excavated in this area due to elevated Mn concentrations
River Berm Area	SB-380	IDWP, GSIP, RDWP	7/25/2000	0	0.5	Cobalt	5.5	Cobalt was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Restrictive Covenant prevents use of the groundwater as a drinking water source. Soils excavated in this area due to elevated Mn concentrations
River Berm Area	SB-380	IDWP, GSIP, RDWP	7/25/2000	0	0.5	Chromium (Total)	42.3	Chromium was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Restrictive Covenant prevents use of the groundwater as a drinking water source. Soils excavated in this area due to elevated Mn concentrations
River Berm Area	SB-380	IDWP, GSIP, RDWP	7/25/2000	0	0.5	Manganese	1,950	Manganese was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Restrictive covenant prevents use of the groundwater was a drinking water source. Soils excavated in this area due to elevated Mn concentrations
River Berm Area	SB-380	IDWP, RDWP	7/25/2000	0	0.5	Aluminum	12,100	Restrictive Covenant prevents use of the groundwater as a drinking water source. Soils excavated in this area due to elevated Mn concentrations

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SUMMARY OF SITE SOIL DATA THAT EXCEED GENERIC MDEQ DRINKING WATER AND GSI PROTECTION CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Depth Start (feet)	Depth End (feet)	Analyte	Detected Concentration (mg/kg)	Comments
River Berm Area	SB-380	IDWP, RDWP	7/25/2000	0	0.5	Iron	19,500	Restrictive Covenant prevents use of the groundwater as a drinking water source. Soils excavated in this area due to elevated Mn concentrations
River Berm Area	SB-380	GSIP	7/25/2000	0.5	1	Silver	0.4 B	Silver was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Soils excavated in this area due to elevated Mn concentrations
River Berm Area	SB-380	GSIP	7/25/2000	0.5	1	Selenium	1.3 B G	Selenium was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Soils excavated in this area due to elevated Mn concentrations
River Berm Area	SB-380	IDWP, GSIP, RDWP	7/25/2000	0.5	1	Chromium (Total)	184	Chromium was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Restrictive Covenant prevents use of the groundwater as a drinking water source. Soils excavated in this area due to elevated Mn concentrations
River Berm Area	SB-380	IDWP, GSIP, RDWP	7/25/2000	0.5	1	Manganese	24,500	Manganese was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Restrictive covenant prevents use of the groundwater was a drinking water source. The area around soil sample SB-380 was excavated to remove man
River Berm Area	SB-380	IDWP, GSIP, RDWP	7/25/2000	0.5	1	Cobalt	3.3 B	Cobalt was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Restrictive Covenant prevents use of the groundwater as a drinking water source. Soils excavated in this area due to elevated Mn concentrations
River Berm Area	SB-380	IDWP, RDWP	7/25/2000	0.5	1	Aluminum	25,200	Restrictive Covenant prevents use of the groundwater as a drinking water source. Soils excavated in this area due to elevated Mn concentrations
River Berm Area	SB-380	IDWP, RDWP	7/25/2000	0.5	1	Iron	40,200	Restrictive Covenant prevents use of the groundwater as a drinking water source. Soils excavated in this area due to elevated Mn concentrations
River Berm Area	SB-381	GSIP	7/25/2000	0	0.5	Selenium	1.6	Selenium was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Soils excavated in this area due to elevated Mn concentrations
River Berm Area	SB-381	IDWP, GSIP, RDWP	7/25/2000	0	0.5	Cobalt	5.6	Soils excavated in this area due to elevated Mn concentrations
River Berm Area	SB-381	IDWP, GSIP, RDWP	7/25/2000	0	0.5	Chromium (Total)	58.9	Soils excavated in this area due to elevated Mn concentrations

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SUMMARY OF SITE SOIL DATA THAT EXCEED GENERIC MDEQ DRINKING WATER AND GSI PROTECTION CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Depth Start (feet)	Depth End (feet)	Analyte	Detected Concentration (mg/kg)	Comments
River Berm Area	SB-381	IDWP, GSIP, RDWP	7/25/2000	0	0.5	Manganese	3,040	Soils excavated in this area due to elevated Mn concentrations
River Berm Area	SB-381	IDWP, RDWP	7/25/2000	0	0.5	Aluminum	14,700	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-381	IDWP, RDWP	7/25/2000	0	0.5	Iron	19,400	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-381	GSIP	7/25/2000	0.5	1	Silver	1.3 B	Silver was not detected above GSI in groundwater samples collected from permanent monitoring wells in area.
River Berm Area	SB-381	GSIP	7/25/2000	0.5	1	Selenium	2.1 B G	Selenium was not detected above GSI in groundwater samples collected from permanent monitoring wells in area.
River Berm Area	SB-381	IDWP, GSIP, RDWP	7/25/2000	0.5	1	Chromium (Total)	324	Soils excavated in this area due to elevated Mn concentrations
River Berm Area	SB-381	IDWP, GSIP, RDWP	7/25/2000	0.5	1	Manganese	32,600	Soils excavated in this area due to elevated Mn concentrations
River Berm Area	SB-381	IDWP, GSIP, RDWP	7/25/2000	0.5	1	Cobalt	2.8 B	Cobalt was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-381	IDWP, RDWP	7/25/2000	0.5	1	Aluminum	27,900	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-381	IDWP, RDWP	7/25/2000	0.5	1	Iron	32,800	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-382	GSIP	7/25/2000	0	0.5	Selenium	1.5	Selenium was not detected above GSI in groundwater samples collected from permanent monitoring wells in area.
River Berm Area	SB-382	GSIP	7/25/2000	0	0.5	Mercury	0.058 B J	Mercury was not detected above GSI in groundwater samples collected from permanent monitoring wells in area.
River Berm Area	SB-382	IDWP, GSIP, RDWP	7/25/2000	0	0.5	Chromium (Total)	42.7	Chromium was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-382	IDWP, GSIP, RDWP	7/25/2000	0	0.5	Manganese	2,190	Manganese was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Restrictive covenant prevents use of the groundwater was a drinking water source.
River Berm Area	SB-382	IDWP, GSIP, RDWP	7/25/2000	0	0.5	Cobalt	4.9 B	Cobalt was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Restrictive Covenant prevents use of the groundwater as a drinking water source.

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SUMMARY OF SITE SOIL DATA THAT EXCEED GENERIC MDEQ DRINKING WATER AND GSI PROTECTION CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Depth Start (feet)	Depth End (feet)	Analyte	Detected Concentration (mg/kg)	Comments
River Berm Area	SB-382	IDWP, RDWP	7/25/2000	0	0.5	Aluminum	9,170	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-382	IDWP, RDWP	7/25/2000	0	0.5	Iron	20,300	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-382	GSIP	7/25/2000	0.5	1	Selenium	2	Selenium was not detected above GSI in groundwater samples collected from permanent monitoring wells in area.
River Berm Area	SB-382	GSIP	7/25/2000	0.5	1	Mercury	0.08 B J	Mercury was not detected above GSI in groundwater samples collected from permanent monitoring wells in area.
River Berm Area	SB-382	GSIP	7/25/2000	0.5	1	Silver	0.33 B	Silver was not detected above GSI in groundwater samples collected from permanent monitoring wells in area.
River Berm Area	SB-382	IDWP, GSIP, RDWP	7/25/2000	0.5	1	Chromium (Total)	65	Chromium was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-382	IDWP, GSIP, RDWP	7/25/2000	0.5	1	Manganese	3,450	Manganese was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Restrictive covenant prevents use of the groundwater was a drinking water source.
River Berm Area	SB-382	IDWP, GSIP, RDWP	7/25/2000	0.5	1	Cobalt	5.1 B	Cobalt was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-382	IDWP, RDWP	7/25/2000	0.5	1	Aluminum	10,500	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-382	IDWP, RDWP	7/25/2000	0.5	1	Iron	26,500	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-383	GSIP	7/25/2000	0	0.5	Chromium (Total)	8.4	Chromium was not detected above GSI in groundwater samples collected from permanent monitoring wells in area.
River Berm Area	SB-383	IDWP, GSIP, RDWP	7/25/2000	0	0.5	Manganese	225	Manganese was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Restrictive covenant prevents use of the groundwater was a drinking water source.
River Berm Area	SB-383	IDWP, RDWP	7/25/2000	0	0.5	Aluminum	3,350	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-383	IDWP, RDWP	7/25/2000	0	0.5	Iron	7,030	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-383	RDWP	7/25/2000	0	0.5	Cobalt	1.3 B	Restrictive Covenant prevents use of the groundwater as a drinking water source.

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SUMMARY OF SITE SOIL DATA THAT EXCEED GENERIC MDEQ DRINKING WATER AND GSI PROTECTION CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Depth Start (feet)	Depth End (feet)	Analyte	Detected Concentration (mg/kg)	Comments
River Berm Area	SB-383	GSIP	7/25/2000	0.5	1	Chromium (Total)	3.9	Chromium was not detected above GSI in groundwater samples collected from permanent monitoring wells in area.
River Berm Area	SB-383	IDWP, GSIP, RDWP	7/25/2000	0.5	1	Manganese	156	Manganese was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Restrictive covenant prevents use of the groundwater was a drinking water source.
River Berm Area	SB-383	IDWP, RDWP	7/25/2000	0.5	1	Aluminum	3,730	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-383	IDWP, RDWP	7/25/2000	0.5	1	Iron	4,710	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-383	RDWP	7/25/2000	0.5	1	Cobalt	1.1 B	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-384	GSIP	7/25/2000	0	0.5	Selenium	0.98	Selenium was not detected above GSI in groundwater samples collected from permanent monitoring wells in area.
River Berm Area	SB-384	GSIP	7/25/2000	0	0.5	Chromium (Total)	24.7	Chromium was not detected above GSI in groundwater samples collected from permanent monitoring wells in area.
River Berm Area	SB-384	GSIP	7/25/2000	0	0.5	Mercury	0.051 B J	Mercury was not detected above GSI in groundwater samples collected from permanent monitoring wells in area.
River Berm Area	SB-384	IDWP, GSIP, RDWP	7/25/2000	0	0.5	Manganese	738	Manganese was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Restrictive covenant prevents use of the groundwater was a drinking water source.
River Berm Area	SB-384	IDWP, GSIP, RDWP	7/25/2000	0	0.5	Cobalt	4 B	Cobalt was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-384	IDWP, RDWP	7/25/2000	0	0.5	Aluminum	8,770	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-384	IDWP, RDWP	7/25/2000	0	0.5	Iron	13,900	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-384	GSIP	7/25/2000	0.5	1	Selenium	0.88	Selenium was not detected above GSI in groundwater samples collected from permanent monitoring wells in area.
River Berm Area	SB-384	GSIP	7/25/2000	0.5	1	Silver	0.18 B	Silver was not detected above GSI in groundwater samples collected from permanent monitoring wells in area.

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SUMMARY OF SITE SOIL DATA THAT EXCEED GENERIC MDEQ DRINKING WATER AND GSI PROTECTION CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Depth Start (feet)	Depth End (feet)	Analyte	Detected Concentration (mg/kg)	Comments
River Berm Area	SB-384	IDWP, GSIP, RDWP	7/25/2000	0.5	1	Chromium (Total)	42.6	Chromium was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-384	IDWP, GSIP, RDWP	7/25/2000	0.5	1	Manganese	2,070	Manganese was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Restrictive covenant prevents use of the groundwater was a drinking water source.
River Berm Area	SB-384	IDWP, GSIP, RDWP	7/25/2000	0.5	1	Cobalt	2.4 B	Cobalt was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-384	IDWP, RDWP	7/25/2000	0.5	1	Aluminum	6,030	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-384	IDWP, RDWP	7/25/2000	0.5	1	Iron	15,300	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-385	GSIP	7/25/2000	0	0.5	Selenium	0.68	Selenium was not detected above GSI in groundwater samples collected from permanent monitoring wells in area.
River Berm Area	SB-385	GSIP	7/25/2000	0	0.5	Chromium (Total)	15.4	Chromium was not detected above GSI in groundwater samples collected from permanent monitoring wells in area.
River Berm Area	SB-385	GSIP	7/25/2000	0	0.5	Mercury	0.064 B J	Mercury was not detected above GSI in groundwater samples collected from permanent monitoring wells in area.
River Berm Area	SB-385	IDWP, GSIP, RDWP	7/25/2000	0	0.5	Manganese	276	Groundwater samples collected in this area using ultra-low-flow procedures have not shown Mn above GSI.
River Berm Area	SB-385	IDWP, GSIP, RDWP	7/25/2000	0	0.5	Cobalt	3.2 B	Cobalt was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-385	IDWP, RDWP	7/25/2000	0	0.5	Aluminum	4,740	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-385	IDWP, RDWP	7/25/2000	0	0.5	Iron	10,900	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-385	GSIP	7/25/2000	0.5	1	Selenium	0.61	Selenium was not detected above GSI in groundwater samples collected from permanent monitoring wells in area.
River Berm Area	SB-385	GSIP	7/25/2000	0.5	1	Chromium (Total)	12.2 J	Chromium was not detected above GSI in groundwater samples collected from permanent monitoring wells in area.

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SUMMARY OF SITE SOIL DATA THAT EXCEED GENERIC MDEQ DRINKING WATER AND GSI PROTECTION CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Depth Start (feet)	Depth End (feet)	Analyte	Detected Concentration (mg/kg)	Comments
River Berm Area	SB-385	IDWP, GSIP, RDWP	7/25/2000	0.5	1	Cobalt	2.2 B	Cobalt was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-385	IDWP, GSIP, RDWP	7/25/2000	0.5	1	Manganese	384 J	Groundwater samples collected in this area using ultra-low-flow procedures have not shown Mn above GSI.
River Berm Area	SB-385	IDWP, RDWP	7/25/2000	0.5	1	Aluminum	4,040	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-385	IDWP, RDWP	7/25/2000	0.5	1	Iron	6,980	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-385	RDWP	7/25/2000	0.5	1	Magnesium	10,900	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-386	GSIP	7/25/2000	0	0.5	Mercury	0.16	Mercury was not detected above GSI in groundwater samples collected from permanent monitoring wells in area.
River Berm Area	SB-386	GSIP	7/25/2000	0	0.5	Chromium (Total)	25.1 J	Chromium was not detected above GSI in groundwater samples collected from permanent monitoring wells in area.
River Berm Area	SB-386	IDWP, GSIP, RDWP	7/25/2000	0	0.5	Manganese	1,180 J	Manganese was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Restrictive covenant prevents use of the groundwater was a drinking water source.
River Berm Area	SB-386	IDWP, GSIP, RDWP	7/25/2000	0	0.5	Cobalt	2.2 B	Cobalt was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-386	IDWP, RDWP	7/25/2000	0	0.5	Aluminum	3,710	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-386	IDWP, RDWP	7/25/2000	0	0.5	Iron	10,500	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-386	GSIP	7/25/2000	0.5	1	Chromium (Total)	7.7 J	Chromium was not detected above GSI in groundwater samples collected from permanent monitoring wells in area.
River Berm Area	SB-386	IDWP, GSIP, RDWP	7/25/2000	0.5	1	Manganese	173 J	Manganese was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Restrictive covenant prevents use of the groundwater was a drinking water source.
River Berm Area	SB-386	IDWP, GSIP, RDWP	7/25/2000	0.5	1	Cobalt	2.2 B	Cobalt was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-386	IDWP, RDWP	7/25/2000	0.5	1	Aluminum	3,490	Restrictive Covenant prevents use of the groundwater as a drinking water source.

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SUMMARY OF SITE SOIL DATA THAT EXCEED GENERIC MDEQ DRINKING WATER AND GSI PROTECTION CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Depth Start (feet)	Depth End (feet)	Analyte	Detected Concentration (mg/kg)	Comments
River Berm Area	SB-386	IDWP, RDWP	7/25/2000	0.5	1	Iron	5,930	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-387	GSIP	7/25/2000	0	0.5	Selenium	0.51 B	Selenium was not detected above GSI in groundwater samples collected from permanent monitoring wells in area.
River Berm Area	SB-387	GSIP	7/25/2000	0	0.5	Chromium (Total)	21.6 J	Chromium was not detected above GSI in groundwater samples collected from permanent monitoring wells in area.
River Berm Area	SB-387	IDWP, GSIP, RDWP	7/25/2000	0	0.5	Cobalt	3.1 B	Cobalt was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-387	IDWP, GSIP, RDWP	7/25/2000	0	0.5	Manganese	686 J	Manganese was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Restrictive covenant prevents use of the groundwater was a drinking water source.
River Berm Area	SB-387	IDWP, RDWP	7/25/2000	0	0.5	Aluminum	4,430	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-387	IDWP, RDWP	7/25/2000	0	0.5	Iron	15,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-387	GSIP	7/25/2000	0.5	1	Selenium	0.49 B	Selenium was not detected above GSI in groundwater samples collected from permanent monitoring wells in area.
River Berm Area	SB-387	IDWP, GSIP, RDWP	7/25/2000	0.5	1	Manganese	2,200 J	Manganese was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Restrictive covenant prevents use of the groundwater was a drinking water source.
River Berm Area	SB-387	IDWP, GSIP, RDWP	7/25/2000	0.5	1	Chromium (Total)	43.9 J	Chromium was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-387	IDWP, RDWP	7/25/2000	0.5	1	Aluminum	3,530	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-387	IDWP, RDWP	7/25/2000	0.5	1	Iron	12,400	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-387	RDWP	7/25/2000	0.5	1	Cobalt	1.7 B	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-388	GSIP	7/25/2000	0	0.5	Selenium	0.97	Selenium was not detected above GSI in groundwater samples collected from permanent monitoring wells in area.
River Berm Area	SB-388	GSIP	7/25/2000	0	0.5	Silver	0.19 B	Silver was not detected above GSI in groundwater samples collected from permanent monitoring wells in area.

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TABLE 2-2

SUMMARY OF SITE SOIL DATA THAT EXCEED GENERIC MDEQ DRINKING WATER AND GSI PROTECTION CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Depth Start (feet)	Depth End (feet)	Analyte	Detected Concentration (mg/kg)	Comments
River Berm Area	SB-388	IDWP, GSIP, RDWP	7/25/2000	0	0.5	Manganese	2,940 J	Monitoring well MW-149 is sampled for MN as part of RAP OM&M Plan.
River Berm Area	SB-388	IDWP, GSIP, RDWP	7/25/2000	0	0.5	Cobalt	3.8 B	Cobalt was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-388	IDWP, GSIP, RDWP	7/25/2000	0	0.5	Chromium (Total)	65.7 J	Chromium was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-388	IDWP, RDWP	7/25/2000	0	0.5	Aluminum	7,610	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-388	IDWP, RDWP	7/25/2000	0	0.5	Iron	20,900	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-388	GSIP	7/25/2000	0.5	1	Chromium (Total)	22.7 J	Chromium was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-388	IDWP, GSIP, RDWP	7/25/2000	0.5	1	Cobalt	2.9 B	Cobalt was not detected above GSI in groundwater samples collected from permanent monitoring wells in area. Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-388	IDWP, GSIP, RDWP	7/25/2000	0.5	1	Manganese	909 J	Monitoring well MW-149 is sampled for MN as part of RAP OM&M Plan.
River Berm Area	SB-388	IDWP, RDWP	7/25/2000	0.5	1	Aluminum	3,670	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-388	IDWP, RDWP	7/25/2000	0.5	1	Iron	9,800	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm Area	SB-388	RDWP	7/25/2000	0.5	1	Magnesium	8,370	Restrictive Covenant prevents use of the groundwater as a drinking water source.
SMI Plant Perimeter	SB-01A	GSIP	8/23/2001	1	3	Chromium (Total)	7.1	Interior site area; GSI criteria do not apply.
SMI Plant Perimeter	SB-01A	IDWP, GSIP, RDWP	8/23/2001	1	3	Manganese	289	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
SMI Plant Perimeter	SB-01A	IDWP, RDWP	8/23/2001	1	3	Aluminum	2,490	Restrictive Covenant prevents use of the groundwater as a drinking water source.
SMI Plant Perimeter	SB-01A	IDWP, RDWP	8/23/2001	1	3	Iron	6,810	Restrictive Covenant prevents use of the groundwater as a drinking water source.
SMI Plant Perimeter	SB-01A	RDWP	8/23/2001	1	3	Cobalt	1.4 B	Restrictive Covenant prevents use of the groundwater as a drinking water source.
SMI Plant Perimeter	SB-01A	GSIP	8/23/2001	5	7	Selenium	0.7	Interior site area; GSI criteria do not apply.

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SUMMARY OF SITE SOIL DATA THAT EXCEED GENERIC MDEQ DRINKING WATER AND GSI PROTECTION CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Depth Start (feet)	Depth End (feet)	Analyte	Detected Concentration (mg/kg)	Comments
SMI Plant Perimeter	SB-01A	IDWP, GSIP, RDWP	8/23/2001	5	7	Chromium (Total)	43.1	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
SMI Plant Perimeter	SB-01A	IDWP, GSIP, RDWP	8/23/2001	5	7	Manganese	192	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
SMI Plant Perimeter	SB-01A	IDWP, RDWP	8/23/2001	5	7	Aluminum	2,120	Restrictive Covenant prevents use of the groundwater as a drinking water source.
SMI Plant Perimeter	SB-01A	IDWP, RDWP	8/23/2001	5	7	Iron	19,900	Restrictive Covenant prevents use of the groundwater as a drinking water source.
SMI Plant Perimeter	SB-01A	RDWP	8/23/2001	5	7	Cobalt	2 B	Restrictive Covenant prevents use of the groundwater as a drinking water source.
SMI Plant Perimeter	SB-02	GSIP	8/23/2001	1.2	3.2	Chromium (Total)	16.6	Interior site area; GSI criteria do not apply.
SMI Plant Perimeter	SB-02	IDWP, GSIP, RDWP	8/23/2001	1.2	3.2	Cobalt	6.2	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
SMI Plant Perimeter	SB-02	IDWP, GSIP, RDWP	8/23/2001	1.2	3.2	Manganese	234	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
SMI Plant Perimeter	SB-02	IDWP, RDWP	8/23/2001	1.2	3.2	Aluminum	8,270	Restrictive Covenant prevents use of the groundwater as a drinking water source.
SMI Plant Perimeter	SB-02	IDWP, RDWP	8/23/2001	1.2	3.2	Iron	13,200	Restrictive Covenant prevents use of the groundwater as a drinking water source.
SMI Plant Perimeter	SB-02	IDWP, RDWP	8/23/2001	1.2	3.2	Magnesium	24,100	Restrictive Covenant prevents use of the groundwater as a drinking water source.
SMI Plant Perimeter	SB-02	GSIP	8/23/2001	9	11	Chromium (Total)	16	Interior site area; GSI criteria do not apply.
SMI Plant Perimeter	SB-02	IDWP, GSIP, RDWP	8/23/2001	9	11	Cobalt	6.2	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
SMI Plant Perimeter	SB-02	IDWP, GSIP, RDWP	8/23/2001	9	11	Manganese	310	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
SMI Plant Perimeter	SB-02	IDWP, RDWP	8/23/2001	9	11	Aluminum	9,060	Restrictive Covenant prevents use of the groundwater as a drinking water source.
SMI Plant Perimeter	SB-02	IDWP, RDWP	8/23/2001	9	11	Iron	12,500	Restrictive Covenant prevents use of the groundwater as a drinking water source.
SMI Plant Perimeter	SB-02	RDWP	8/23/2001	9	11	Magnesium	19,200	Restrictive Covenant prevents use of the groundwater as a drinking water source.
SMI Plant Perimeter	SB-03	GSIP	8/23/2001	0.7	2.7	Selenium	0.91	Interior site area; GSI criteria do not apply.
SMI Plant Perimeter	SB-03	GSIP	8/23/2001	0.7	2.7	Chromium (Total)	23.8	Interior site area; GSI criteria do not apply.
SMI Plant Perimeter	SB-03	GSIP	8/23/2001	0.7	2.7	Mercury	0.051 B	Interior site area; GSI criteria do not apply.

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SUMMARY OF SITE SOIL DATA THAT EXCEED GENERIC MDEQ DRINKING WATER AND GSI PROTECTION CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Depth Start (feet)	Depth End (feet)	Analyte	Detected Concentration (mg/kg)	Comments
SMI Plant Perimeter	SB-03	IDWP, GSIP, RDWP	8/23/2001	0.7	2.7	Manganese	1,090	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
SMI Plant Perimeter	SB-03	IDWP, GSIP, RDWP	8/23/2001	0.7	2.7	Cobalt	3.9 B	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
SMI Plant Perimeter	SB-03	IDWP, RDWP	8/23/2001	0.7	2.7	Aluminum	5,480	Restrictive Covenant prevents use of the groundwater as a drinking water source.
SMI Plant Perimeter	SB-03	IDWP, RDWP	8/23/2001	0.7	2.7	Iron	22,300	Restrictive Covenant prevents use of the groundwater as a drinking water source.
SMI Plant Perimeter	SB-03	GSIP	8/23/2001	0.7	2.7	Selenium	0.66	Interior site area; GSI criteria do not apply.
SMI Plant Perimeter	SB-03	GSIP	8/23/2001	0.7	2.7	Chromium (Total)	24.3	Interior site area; GSI criteria do not apply.
SMI Plant Perimeter	SB-03	GSIP	8/23/2001	0.7	2.7	Mercury	0.051 B	Interior site area; GSI criteria do not apply.
SMI Plant Perimeter	SB-03	IDWP, GSIP, RDWP	8/23/2001	0.7	2.7	Manganese	1,170	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
SMI Plant Perimeter	SB-03	IDWP, GSIP, RDWP	8/23/2001	0.7	2.7	Cobalt	3.8 B	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
SMI Plant Perimeter	SB-03	IDWP, RDWP	8/23/2001	0.7	2.7	Aluminum	4,720	Restrictive Covenant prevents use of the groundwater as a drinking water source.
SMI Plant Perimeter	SB-03	IDWP, RDWP	8/23/2001	0.7	2.7	Iron	23,500	Restrictive Covenant prevents use of the groundwater as a drinking water source.
SMI Plant Perimeter	SB-03	GSIP	8/23/2001	4.7	6.7	Selenium	2.2	Interior site area; GSI criteria do not apply.
SMI Plant Perimeter	SB-03	GSIP	8/23/2001	4.7	6.7	Chromium (Total)	29.8	Interior site area; GSI criteria do not apply.
SMI Plant Perimeter	SB-03	IDWP, GSIP, RDWP	8/23/2001	4.7	6.7	Cobalt	7.2	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
SMI Plant Perimeter	SB-03	IDWP, GSIP, RDWP	8/23/2001	4.7	6.7	Manganese	1,020	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
SMI Plant Perimeter	SB-03	IDWP, RDWP	8/23/2001	4.7	6.7	Aluminum	4,650	Restrictive Covenant prevents use of the groundwater as a drinking water source.
SMI Plant Perimeter	SB-03	IDWP, RDWP	8/23/2001	4.7	6.7	Iron	93,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
SMI Plant Perimeter	SB-04	IDWP	8/23/2001	0.3	2.3	Aluminum	221	Restrictive Covenant prevents use of the groundwater as a drinking water source.
SMI Plant Perimeter	SB-04	IDWP, GSIP, RDWP	8/23/2001	0.3	2.3	Manganese	125	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
SMI Plant Perimeter	SB-04	IDWP, RDWP	8/23/2001	0.3	2.3	Iron	1,750	Restrictive Covenant prevents use of the groundwater as a drinking water source.

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SUMMARY OF SITE SOIL DATA THAT EXCEED GENERIC MDEQ DRINKING WATER AND GSI PROTECTION CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Depth Start (feet)	Depth End (feet)	Analyte	Detected Concentration (mg/kg)	Comments
SMI Plant Perimeter	SB-04	RDWP	8/23/2001	0.3	2.3	Aluminum	221	Restrictive Covenant prevents use of the groundwater as a drinking water source.
SMI Plant Perimeter	SB-04	GSIP	8/23/2001	8.3	10	Chromium (Total)	17.1	Interior site area; GSI criteria do not apply.
SMI Plant Perimeter	SB-04	GSIP	8/23/2001	8.3	10	Cyanide, Total	0.29 B	Interior site area; GSI criteria do not apply.
SMI Plant Perimeter	SB-04	GSIP	8/23/2001	8.3	10	Selenium	0.6 B	Interior site area; GSI criteria do not apply.
SMI Plant Perimeter	SB-04	IDWP, GSIP, RDWP	8/23/2001	8.3	10	Cobalt	7.8	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
SMI Plant Perimeter	SB-04	IDWP, GSIP, RDWP	8/23/2001	8.3	10	Manganese	1,480	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
SMI Plant Perimeter	SB-04	IDWP, RDWP	8/23/2001	8.3	10	Aluminum	10,200	Restrictive Covenant prevents use of the groundwater as a drinking water source.
SMI Plant Perimeter	SB-04	IDWP, RDWP	8/23/2001	8.3	10	Iron	21,200	Restrictive Covenant prevents use of the groundwater as a drinking water source.
SMI Plant Perimeter	SB-04	RDWP	8/23/2001	8.3	10	Magnesium	14,300	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Unpaved Area	US-1	IDWP, GSIP, RDWP	6/12/1995	0	1	Chromium (Total)	49.5	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Unpaved Area	US-1	IDWP, GSIP, RDWP	6/12/1995	0	1	Manganese	358 J	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Unpaved Area	US-1	IDWP, RDWP	6/12/1995	0	1	Aluminum	5,040	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Unpaved Area	US-1	IDWP, RDWP	6/12/1995	0	1	Iron	9,970	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Unpaved Area	US-1	RDWP	6/12/1995	0	1	Magnesium	16,300	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Unpaved Area	US-2	GSIP	6/12/1995	0	1	Chromium (Total)	18.6	Interior site area; GSI criteria do not apply.
Unpaved Area	US-2	IDWP, GSIP, RDWP	6/12/1995	0	1	Manganese	399 J	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Unpaved Area	US-2	IDWP, RDWP	6/12/1995	0	1	Aluminum	3,880	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Unpaved Area	US-2	IDWP, RDWP	6/12/1995	0	1	Iron	11,600	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Unpaved Area	US-2	RDWP	6/12/1995	0	1	Magnesium	10,600	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Unpaved Area	US-3	GSIP	6/12/1995	0	1	Chromium (Total)	15.3	Interior site area; GSI criteria do not apply.
Unpaved Area	US-3	IDWP, GSIP, RDWP	6/12/1995	0	1	Manganese	375 J	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.

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SUMMARY OF SITE SOIL DATA THAT EXCEED GENERIC MDEQ DRINKING WATER AND GSI PROTECTION CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Depth Start (feet)	Depth End (feet)	Analyte	Detected Concentration (mg/kg)	Comments
Unpaved Area	US-3	IDWP, RDWP	6/12/1995	0	1	Aluminum	2,930	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Unpaved Area	US-3	IDWP, RDWP	6/12/1995	0	1	Iron	11,300	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Unpaved Area	US-3	RDWP	6/12/1995	0	1	Magnesium	8,680	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Unpaved Area	US-4	GSIP	6/12/1995	0	1	Chromium (Total)	30	Interior site area; GSI criteria do not apply.
Unpaved Area	US-4	IDWP, GSIP, RDWP	6/12/1995	0	1	Manganese	267 J	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Unpaved Area	US-4	IDWP, RDWP	6/12/1995	0	1	Aluminum	1,440	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Unpaved Area	US-4	IDWP, RDWP	6/12/1995	0	1	Iron	16,900	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Unpaved Area	US-5	IDWP, GSIP, RDWP	6/12/1995	0	1	Chromium (Total)	30.6	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source. The area around soil sample US-5 was excavated to remove PCB impacted soil, post excavation samples were analyzed for PCBs only.
Unpaved Area	US-5	IDWP, GSIP, RDWP	6/12/1995	0	1	Nickel	124	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source. The area around soil sample US-5 was excavated to remove PCB impacted soil, post excavation samples were analyzed for PCBs only.
Unpaved Area	US-5	IDWP, GSIP, RDWP	6/12/1995	0	1	Manganese	401 J	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source. The area around soil sample US-5 was excavated to remove PCB impacted soil, post excavation samples were analyzed for PCBs only.
Unpaved Area	US-5	IDWP, RDWP	6/12/1995	0	1	Aluminum	2,060	Restrictive Covenant prevents use of the groundwater as a drinking water source. The area around soil sample US-5 was excavated to remove PCB impacted soil, post excavation samples were analyzed for PCBs only.
Unpaved Area	US-5	IDWP, RDWP	6/12/1995	0	1	Iron	19,800	Restrictive Covenant prevents use of the groundwater as a drinking water source. The area around soil sample US-5 was excavated to remove PCB impacted soil, post excavation samples were analyzed for PCBs only.
Unpaved Area	US-6	IDWP, GSIP, RDWP	6/12/1995	0	1	Chromium (Total)	38.7	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Depth Start (feet)	Depth End (feet)	Analyte	Detected Concentration (mg/kg)	Comments
Unpaved Area	US-6	IDWP, GSIP, RDWP	6/12/1995	0	1	Manganese	985 J	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Unpaved Area	US-6	IDWP, RDWP	6/12/1995	0	1	Aluminum	2,680	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Unpaved Area	US-6	IDWP, RDWP	6/12/1995	0	1	Iron	18,800	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Unpaved Area	US-7	GSIP	6/12/1995	0	1	Chromium (Total)	8.87	Interior site area; GSI criteria do not apply.
Unpaved Area	US-7	IDWP, GSIP, RDWP	6/12/1995	0	1	Manganese	171 J	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Unpaved Area	US-7	IDWP, RDWP	6/12/1995	0	1	Iron	6,570	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Unpaved Area	US-7	IDWP, RDWP	6/12/1995	0	1	Aluminum	1,250 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Unpaved Area	US-8	IDWP, GSIP, RDWP	6/12/1995	0	1	Chromium (Total)	31.8	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Unpaved Area	US-8	IDWP, GSIP, RDWP	6/12/1995	0	1	Manganese	693 J	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Unpaved Area	US-8	IDWP, RDWP	6/12/1995	0	1	Iron	19,600	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Unpaved Area	US-8	IDWP, RDWP	6/12/1995	0	1	Aluminum	2,730 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Unpaved Area	US-8	RDWP	6/12/1995	0	1	Magnesium	12,600	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Unpaved Area	VE-1	GSIP	8/10/2001	0.75	1.58	Chromium (Total)	4.9	Interior site area; GSI criteria do not apply.
Unpaved Area	VE-1	IDWP, GSIP, RDWP	8/10/2001	0.75	1.58	Cobalt	120	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Unpaved Area	VE-1	IDWP, GSIP, RDWP	8/10/2001	0.75	1.58	Manganese	150	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Unpaved Area	VE-1	IDWP, GSIP, RDWP	8/10/2001	0.75	1.58	Nickel	3,400	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Unpaved Area	VE-1	IDWP, RDWP	8/10/2001	0.75	1.58	Aluminum	1,200	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Unpaved Area	VE-1	IDWP, RDWP	8/10/2001	0.75	1.58	Iron	6,900	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Unpaved Area	VE-2	GSIP	8/10/2001	0.92	1.67	Selenium	0.96	Interior site area; GSI criteria do not apply.
Unpaved Area	VE-2	GSIP	8/10/2001	0.92	1.67	Chromium (Total)	28	Interior site area; GSI criteria do not apply.

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Depth Start (feet)	Depth End (feet)	Analyte	Detected Concentration (mg/kg)	Comments
Unpaved Area	VE-2	IDWP, GSIP, RDWP	8/10/2001	0.92	1.67	Thallium	3.4	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Unpaved Area	VE-2	IDWP, GSIP, RDWP	8/10/2001	0.92	1.67	Cobalt	94	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Unpaved Area	VE-2	IDWP, GSIP, RDWP	8/10/2001	0.92	1.67	Manganese	1,300	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Unpaved Area	VE-2	IDWP, RDWP	8/10/2001	0.92	1.67	Aluminum	5,400	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Unpaved Area	VE-2	IDWP, RDWP	8/10/2001	0.92	1.67	Iron	16,900	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Wetlands Mitigation Area	WMB-1	GSIP	1/22/1997	3	3.5	Chromium (Total)	7.96	Interior site area; GSI criteria do not apply.
Wetlands Mitigation Area	WMB-1	IDWP, GSIP, RDWP	1/22/1997	3	3.5	Manganese	204	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Wetlands Mitigation Area	WMB-1	IDWP, RDWP	1/22/1997	3	3.5	Aluminum	5,120	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Wetlands Mitigation Area	WMB-1	IDWP, RDWP	1/22/1997	3	3.5	Iron	6,280	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Wetlands Mitigation Area	WMB-2	IDWP, GSIP, RDWP	1/22/1997	3	3.5	Chromium (Total)	49.5	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Wetlands Mitigation Area	WMB-2	IDWP, GSIP, RDWP	1/22/1997	3	3.5	Manganese	1,170	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Wetlands Mitigation Area	WMB-2	IDWP, RDWP	1/22/1997	3	3.5	Aluminum	8,300	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Wetlands Mitigation Area	WMB-2	IDWP, RDWP	1/22/1997	3	3.5	Iron	44,600	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Wetlands Mitigation Area	WMB-3	GSIP	1/22/1997	5	5.5	Chromium (Total)	7.73	Interior site area; GSI criteria do not apply.
Wetlands Mitigation Area	WMB-3	IDWP, GSIP, RDWP	1/22/1997	5	5.5	Manganese	114	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Wetlands Mitigation Area	WMB-3	IDWP, RDWP	1/22/1997	5	5.5	Aluminum	4,480	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Wetlands Mitigation Area	WMB-3	IDWP, RDWP	1/22/1997	5	5.5	Iron	6,800	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Wetlands Mitigation Area	WMB-4	GSIP	1/22/1997	0.5	1	Mercury	0.0772	Interior site area; GSI criteria do not apply.
Wetlands Mitigation Area	WMB-4	GSIP	1/22/1997	0.5	1	Chromium (Total)	22.6	Interior site area; GSI criteria do not apply.

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TABLE 2-2

SUMMARY OF SITE SOIL DATA THAT EXCEED GENERIC MDEQ DRINKING WATER AND GSI PROTECTION CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Depth Start (feet)	Depth End (feet)	Analyte	Detected Concentration (mg/kg)	Comments
Wetlands Mitigation Area	WMB-4	IDWP, GSIP, RDWP	1/22/1997	0.5	1	Manganese	299	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Wetlands Mitigation Area	WMB-4	IDWP, RDWP	1/22/1997	0.5	1	Iron	14,300	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Wetlands Mitigation Area	WMB-4	IDWP, RDWP	1/22/1997	0.5	1	Aluminum	14,700	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Wetlands Mitigation Area	WMB-5	GSIP	1/22/1997	0.5	1	Chromium (Total)	16.4	Interior site area; GSI criteria do not apply.
Wetlands Mitigation Area	WMB-5	IDWP, GSIP, RDWP	1/22/1997	0.5	1	Manganese	351	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Wetlands Mitigation Area	WMB-5	IDWP, RDWP	1/22/1997	0.5	1	Aluminum	9,990	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Wetlands Mitigation Area	WMB-5	IDWP, RDWP	1/22/1997	0.5	1	Iron	12,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Wetlands Mitigation Area	WMB-6	GSIP	1/22/1997	4	4.5	Chromium (Total)	11.3	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Wetlands Mitigation Area	WMB-6	IDWP, GSIP, RDWP	1/22/1997	4	4.5	Cobalt	7.82	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Wetlands Mitigation Area	WMB-6	IDWP, GSIP, RDWP	1/22/1997	4	4.5	Manganese	323	Interior site area; GSI criteria do not apply. Restrictive Covenant prevents use of the groundwater as a drinking water source.
Wetlands Mitigation Area	WMB-6	IDWP, RDWP	1/22/1997	4	4.5	Aluminum	7,200	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Wetlands Mitigation Area	WMB-6	IDWP, RDWP	1/22/1997	4	4.5	Iron	11,900	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Wetlands Mitigation Area	WMB-6	RDWP	1/22/1997	4	4.5	Magnesium	12,800	Restrictive Covenant prevents use of the groundwater as a drinking water source.

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TABLE 2-2

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

SUMMARY OF SITE SOIL DATA THAT EXCEED GENERIC MDEQ DRINKING WATER AND GSI PROTECTION CRITERIA

Notes:
RI = Remedial Investigation Report, BBL 2001.
HHE = Human Health Evaluation, BBL 2001.
GSIP = Groundwater Surface Water Interface Protection; updated January 2006.
RDWP = Residential Drinking Water Protection criteria, updated January 2006.
IDWP = Industrial Drinking Water Protection criteria, updated January 2006.
B = (Organic) The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
(Inorganic) The analyte has been positively identified. The concentration is between the instrument detection limit and the required reporting limit.
D = Concentration is based on a diluted sample analysis.
J = The compound/constituent was positively identified; however, the associated numerical value is an estimated concentration only.

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TABLE 2-3
SUMMARY OF SITE GROUNDWATER DATA THAT EXCEEDS GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Center Street Area	MW-101WT	GSI, IDW, RDW	6/3/2008	Miscellaneous	TDS	860000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Central Landfill	B-3BAUG	GSI	7/25/1995	Inorganics	Cyanide, Total	7.9	Monitoring well is not located within the groundwater surface water interface.
Central Landfill	B-3BAUG	GSI, IDW, RDW	7/25/1995	Volatiles	Vinyl chloride	31	Restrictive Covenant prevents use of the groundwater as a drinking water source and monitoring well is not a GSI monitoring point.
Central Landfill	B-3BAUG	GSI, IDW, RDW	6/6/1996	Volatiles	Vinyl chloride	18	Restrictive Covenant prevents use of the groundwater as a drinking water source and monitoring well is not a GSI monitoring point.
Central Landfill	B-3R	IDW, RDW	7/26/1995	Inorganics-Filtered	Iron	13,700	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Central Landfill	MW-143WT	GSI	7/25/1995	Semivolatiles	Naphthalene	19	Monitoring well is not located within the groundwater surface water interface.
Central Landfill	MW-143WT	GSI	6/8/1996	Semivolatiles	Naphthalene	26 JN	Monitoring well is not located within the groundwater surface water interface.
Drum Remediation Area	MW-122S1	IDW, RDW	7/18/1995	Inorganics-Filtered	Iron	14,600	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Drum Remediation Area	MW-122S1	IDW, RDW	6/4/1996	Inorganics-Filtered	Iron	14,300 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Drum Remediation Area	MW-122WT	IDW, RDW	7/18/1995	Inorganics-Filtered	Iron	16,600	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Drum Remediation Area	MW-126WT	GSI, IDW, RDW	7/30/1995	Volatiles	Vinyl chloride	150	Restrictive Covenant prevents use of the groundwater as a drinking water source and monitoring well is not a GSI monitoring point.
Drum Remediation Area	MW-126WT	IDW, RDW	7/30/1995	Volatiles	cis-1,2-Dichloroethene	120	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Drum Remediation Area	MW-126WT	IDW, RDW	7/30/1995	Volatiles	Trichloroethene	12	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Drum Remediation Area	MW-126WT	IDW, RDW	6/6/1996	Semivolatiles	bis(2-Ethylhexyl)phthalate	7.2 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Drum Remediation Area	MW-126WT	GSI, IDW, RDW	6/6/1996	Volatiles	Vinyl chloride	270	Restrictive Covenant prevents use of the groundwater as a drinking water source and monitoring well is not a GSI monitoring point.
Drum Remediation Area	MW-126WT	IDW, RDW	6/6/1996	Volatiles	cis-1,2-Dichloroethene	220	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Drum Remediation Area	MW-126WT	IDW, RDW	6/6/1996	Volatiles	Trichloroethene	17	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Drum Remediation Area	MW-127WT	IDW, RDW	7/26/1995	Inorganics-Filtered	Iron	14,500	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Drum Remediation Area	SB-366	IDW, RDW	5/18/1999	Volatiles	Vinyl chloride	5	Restrictive Covenant prevents use of the groundwater as a drinking water source.

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TABLE 2-3
SUMMARY OF SITE GROUNDWATER DATA THAT EXCEEDS GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Drum Remediation Area	SB-368	GSI, IDW, RDW	5/18/1999	Volatiles	Vinyl chloride	410 D	Restrictive Covenant prevents use of the groundwater as a drinking water source and monitoring well is not a GSI monitoring point.
Drum Remediation Area	SB-369	GSI, IDW, RDW	5/18/1999	Volatiles	Vinyl chloride	22 J	Restrictive Covenant prevents use of the groundwater as a drinking water source and monitoring well is not a GSI monitoring point.
Drum Remediation Area	SB-369	IDW, RDW	5/18/1999	Volatiles	Methylene chloride	8 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Drum Remediation Area	SB-370	IDW, RDW	5/18/1999	Volatiles	Methylene chloride	8 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Drum Remediation Area	SB-370	IDW, RDW	5/18/1999	Volatiles	Vinyl chloride	3 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Drum Remediation Area	SB-372	GSI, IDW, RDW	5/18/1999	Volatiles	Methylene chloride	54 J D	Restrictive Covenant prevents use of the groundwater as a drinking water source and monitoring well is not a GSI monitoring point.
Drum Remediation Area	SB-372	GSI, IDW, RDW	5/18/1999	Volatiles	Vinyl chloride	370 J D	Restrictive Covenant prevents use of the groundwater as a drinking water source and monitoring well is not a GSI monitoring point.
Drum Remediation Area	SB-373	GSI, IDW, RDW	5/18/1999	Volatiles	Vinyl chloride	97 J D	Restrictive Covenant prevents use of the groundwater as a drinking water source and monitoring well is not a GSI monitoring point.
Drum Remediation Area	TWW-1	IDW, RDW	1/25/1997	Inorganics-Filtered	Manganese	2,110 £	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Drum Remediation Area	TWW-1	GCC, GSI, IDW, RDW, RGVIA	1/25/1997	Volatiles	Vinyl chloride	2,000	Addressed by site specific clean up (HHE Section 6-14); Residential standards not applicable to the site (HHE Section 4-3).
Drum Remediation Area	TWW-1	GSI, IDW, RDW	1/25/1997	Volatiles	cis-1,2-Dichloroethene	9,600	Addressed by site specific clean up (HHE Section 6-14); Residential standards not applicable to the site (HHE Section 4-3).
Drum Remediation Area	TWW-1	GSI, IDW, RDW	1/25/1997	Volatiles	Trichloroethene	630	Addressed by site specific clean up (HHE Section 6-14); Residential standards not applicable to the site (HHE Section 4-3).
Drum Remediation Area	TWW-1	GCC, GSI, IDW, RDW, RGVIA	8/8/1998	Volatiles	Vinyl chloride	1,700	Addressed by site specific clean up (HHE Section 6-14); Residential standards not applicable to the site (HHE Section 4-3).
Drum Remediation Area	TWW-1	GSI, IDW, RDW	5/18/1999	Volatiles	Vinyl chloride	330 D	Addressed by site specific clean up (HHE Section 6-14); Residential standards not applicable to the site (HHE Section 4-3).
Drum Remediation Area	TWW-1	GSI, IDW, RDW	5/18/1999	Volatiles	Vinyl chloride	390 D	Addressed by site specific clean up (HHE Section 6-14); Residential standards not applicable to the site (HHE Section 4-3).
Drum Remediation Area	TWW-1	IDW, RDW	5/21/2000	BIO	Sulfate	340,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.

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TABLE 2-3
SUMMARY OF SITE GROUNDWATER DATA THAT EXCEEDS GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Drum Remediation Area	TWW-1	GSI, IDW, RDW	5/21/2000	Inorganics	Thallium	7.6 B	Addressed by site specific clean up (HHE Section 6-14); Residential standards not applicable to the site (HHE Section 4-3).
Drum Remediation Area	TWW-1	GSI	5/21/2000	Inorganics-Filtered	Antimony	2.1 B	Addressed by site specific clean up (HHE Section 6-14).
Drum Remediation Area	TWW-1	GSI, IDW, RDW	5/21/2000	Inorganics-Filtered	Thallium	6.3 B	Addressed by site specific clean up (HHE Section 6-14); Residential standards not applicable to the site (HHE Section 4-3).
Drum Remediation Area	TWW-1	GCC, GSI, IDW, RDW, RGVIA	5/21/2000	Volatiles	Vinyl chloride	2,300	Addressed by site specific clean up (HHE Section 6-14); Residential standards not applicable to the site (HHE Section 4-3).
Drum Remediation Area	TWW-1	GSI, IDW, RDW	5/21/2000	Volatiles	1,1-Dichloroethene	51 J	Addressed by site specific clean up (HHE Section 6-14); Residential standards not applicable to the site (HHE Section 4-3).
Drum Remediation Area	TWW-1	GSI, IDW, RDW	5/21/2000	Volatiles	cis-1,2-Dichloroethene	8,800	Addressed by site specific clean up (HHE Section 6-14); Residential standards not applicable to the site (HHE Section 4-3).
Drum Remediation Area	TWW-1	GSI, IDW, RDW	5/29/2008	Miscellaneous	TDS	1600000	Addressed by site specific clean up (HHE Section 6-14); Residential standards not applicable to the site (HHE Section 4-3).
Drum Remediation Area	TWW-2	GSI, IDW, RDW	1/23/1997	Inorganics-Filtered	Thallium	20 G Wa	Addressed by site specific clean up (HHE Section 6-14); Residential standards not applicable to the site (HHE Section 4-3).
Drum Remediation Area	TWW-2	GSI, IDW, RDW	1/23/1997	Inorganics-Filtered	Thallium	10 G Wa	Addressed by site specific clean up (HHE Section 6-14); Residential standards not applicable to the site (HHE Section 4-3).
Drum Remediation Area	TWW-2	GSI, IDW, RDW	5/21/2000	Inorganics	Thallium	9.4 B	Addressed by site specific clean up (HHE Section 6-14); Residential standards not applicable to the site (HHE Section 4-3).
Drum Remediation Area	TWW-2	GSI, IDW, RDW	5/21/2000	Inorganics	Thallium	7.6 B	Addressed by site specific clean up (HHE Section 6-14); Residential standards not applicable to the site (HHE Section 4-3).
Drum Remediation Area	TWW-2	GSI, IDW, RDW	5/21/2000	Inorganics-Filtered	Thallium	8.4 B	Addressed by site specific clean up (HHE Section 6-14); Residential standards not applicable to the site (HHE Section 4-3).
Drum Remediation Area	TWW-2	GSI, IDW, RDW	5/21/2000	Inorganics-Filtered	Thallium	9 B	Addressed by site specific clean up (HHE Section 6-14); Residential standards not applicable to the site (HHE Section 4-3).
Drum Remediation Area	X-15BR	IDW, RDW	6/5/1996	Semivolatiles	bis(2-Ethylhexyl)phthalate	6.7	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Drum Remediation Area	X-15BR	IDW, RDW	5/19/2000	Semivolatiles	bis(2-Ethylhexyl)phthalate	14	Restrictive Covenant prevents use of the groundwater as a drinking water source.

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TABLE 2-3
SUMMARY OF SITE GROUNDWATER DATA THAT EXCEEDS GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Drum Remediation Area	X-15BR	GAI, GCC, GSI, IDW, RDW, WS		Semivolatiles	bis(2-Ethylhexyl)phthalate	500 B D	Detected in 1995, subsequent sampling events (1996 and 2000) showed much lower concentrations not exceeding standard (HHE Section 4-10). Bis(2-Ethylhexyl)phthalate was also detected in 1995 rinse blank (RI p 4-6)
East Landfill	B-4AR	GCC, GSI, IDW, RDW	7/25/1995	PCBs	Total Aroclors	4.4	Only filtered samples were considered for comparison to the GCC value (HHE Section 4-19).
East Landfill	B-4AR	GSI, IDW, RDW	7/25/1995	PCBs-Filtered	Total Aroclors	2.6	Restrictive Covenant prevents use of the groundwater as a drinking water source and monitoring well is not a GSI monitoring point.
East Landfill	B-4AR	GSI	7/25/1995	Semivolatiles	Naphthalene	61	Monitoring well is not located within the groundwater surface water interface.
East Landfill	B-4AR	IDW, RDW	6/12/1996	Inorganics	Iron	26,740	Restrictive Covenant prevents use of the groundwater as a drinking water source.
East Landfill	B-4AR	GSI, IDW, RDW	6/12/1996	PCBs	Total Aroclors	2.2	Restrictive Covenant prevents use of the groundwater as a drinking water source and monitoring well is not a GSI monitoring point.
East Landfill	B-4AR	GSI	6/29/1999	Inorganics	Cyanide, Total	72	Monitoring well is not located within the groundwater surface water interface.
East Landfill	B-4AR	GSI	6/29/1999	Inorganics-Filtered	Antimony	4.2	Monitoring well is not located within the groundwater surface water interface.
East Landfill	B-4AR	IDW, RDW	6/29/1999	Inorganics-Filtered	Aluminum	310 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
East Landfill	B-4AR	IDW, RDW	6/29/1999	Inorganics-Filtered	Lead	9.3	Restrictive Covenant prevents use of the groundwater as a drinking water source.
East Landfill	B-4AR	GSI	9/2/1999	Inorganics-Filtered	Cyanide, Total	81	Monitoring well is not located within the groundwater surface water interface.
East Landfill	B-4AR	GSI	9/2/1999	Inorganics-Filtered	Silver	0.51 JM	Monitoring well is not located within the groundwater surface water interface.
East Landfill	B-4AR	GSI, IDW, RDW	9/2/1999	Inorganics-Filtered	Antimony	9.4	Restrictive Covenant prevents use of the groundwater as a drinking water source and monitoring well is not a GSI monitoring point.
East Landfill	B-4BR	IDW, RDW	7/25/1995	Inorganics-Filtered	Aluminum	470	Restrictive Covenant prevents use of the groundwater as a drinking water source.
East Landfill	B-4BR	GSI, IDW, RDW	7/25/1995	PCBs	Total Aroclors	2.46	Restrictive Covenant prevents use of the groundwater as a drinking water source and monitoring well is not a GSI monitoring point.
East Landfill	B-4BR	IDW, RDW	6/5/1996	Inorganics	Iron	18,410	Restrictive Covenant prevents use of the groundwater as a drinking water source.
East Landfill	B-4BR	GSI, IDW, RDW	6/5/1996	PCBs	Total Aroclors	1	Restrictive Covenant prevents use of the groundwater as a drinking water source and monitoring well is not a GSI monitoring point.
East Landfill	B-4BR	GSI	6/5/1996	PCBs-Filtered	Total Aroclors	0.3	Monitoring well is not located within the groundwater surface water interface.

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TABLE 2-3
SUMMARY OF SITE GROUNDWATER DATA THAT EXCEEDS GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
East Landfill	B-4BR	GSI	9/2/1999	Inorganics-Filtered	Antimony	2.7	Monitoring well is not located within the groundwater surface water interface.
East Landfill	B-4BR	GSI, IDW, RDW	9/2/1999	PCBs	Total Aroclors	0.9	Restrictive Covenant prevents use of the groundwater as a drinking water source and monitoring well is not a GSI monitoring point.
East Landfill	B-4BR	GSI, IDW, RDW	5/22/2000	PCBs	Total Aroclors	0.53	Restrictive Covenant prevents use of the groundwater as a drinking water source and monitoring well is not a GSI monitoring point.
East Landfill	B-4BR	GSI	5/22/2000	PCBs-Filtered	Total Aroclors	0.23	Monitoring well is not located within the groundwater surface water interface.
East Landfill	B-4CAUG	IDW, RDW	7/25/1995	Inorganics-Filtered	Aluminum	1,050	Restrictive Covenant prevents use of the groundwater as a drinking water source.
East Landfill	B-4CAUG	GSI, IDW, RDW	7/25/1995	PCBs	Total Aroclors	0.85	Restrictive Covenant prevents use of the groundwater as a drinking water source and monitoring well is not a GSI monitoring point.
East Landfill	B-4CAUG	GSI	7/25/1995	Semivolatiles	Phenol	1,500 D	Monitoring well is not located within the groundwater surface water interface.
East Landfill	B-4CAUG	GSI, IDW, RDW	6/4/1996	PCBs	Total Aroclors	1	Restrictive Covenant prevents use of the groundwater as a drinking water source and monitoring well is not a GSI monitoring point.
East Landfill	B-4CAUG	GSI	6/4/1996	Semivolatiles	Phenol	3,400	Monitoring well is not located within the groundwater surface water interface.
East Landfill	B-4CAUG	GSI, RDW	6/4/1996	Semivolatiles	2,4-Dimethylphenol	560	Restrictive Covenant prevents use of the groundwater as a drinking water source and monitoring well is not a GSI monitoring point.
East Landfill	B-4CAUG	GSI, RDW	6/29/1999	Inorganics-Filtered	Vanadium	15	Restrictive Covenant prevents use of the groundwater as a drinking water source and monitoring well is not a GSI monitoring point.
East Landfill	B-4CAUG	IDW, RDW	6/29/1999	Inorganics-Filtered	Aluminum	890 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
East Landfill	B-4CAUG	IDW, RDW	6/29/1999	Inorganics-Filtered	Nickel	110	Restrictive Covenant prevents use of the groundwater as a drinking water source.
East Landfill	B-4CAUG	GSI, IDW, RDW	6/29/1999	PCBs	Total Aroclors	0.95	Restrictive Covenant prevents use of the groundwater as a drinking water source and monitoring well is not a GSI monitoring point.
East Landfill	B-4CAUG	GSI	6/29/1999	PCBs-Filtered	Total Aroclors	0.43	Monitoring well is not located within the groundwater surface water interface.
East Landfill	B-4CAUG	GSI	9/2/1999	Inorganics-Filtered	Antimony	5.1	Monitoring well is not located within the groundwater surface water interface.
East Landfill	B-4CAUG	IDW, RDW	9/2/1999	Inorganics-Filtered	Aluminum	580	Restrictive Covenant prevents use of the groundwater as a drinking water source.
East Landfill	B-4CAUG	RDW	9/2/1999	Inorganics-Filtered	Vanadium	11 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.

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TABLE 2-3
SUMMARY OF SITE GROUNDWATER DATA THAT EXCEEDS GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
East Landfill	B-4CAUG	GSI, IDW, RDW	5/23/2000	PCBs-Filtered	Total Aroclors	0.57	Restrictive Covenant prevents use of the groundwater as a drinking water source and monitoring well is not a GSI monitoring point.
East Landfill	B-4DAUG	GSI, IDW, RDW	7/25/1995	PCBs	Total Aroclors	0.64	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
East Landfill	B-4DAUG	GSI, IDW, RDW	7/25/1995	PCBs	Total Aroclors	0.67	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
East Landfill	B-4DAUG	GSI, IDW, RDW	6/4/1996	PCBs	Total Aroclors	0.67	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
East Landfill	B-4DAUG	GSI, IDW, RDW	9/2/1999	PCBs	Total Aroclors	1.21	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
East Landfill	B-4DAUG	GSI, IDW, RDW	5/22/2000	PCBs	Total Aroclors	0.69	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
East Landfill	B-4DAUG	GSI, IDW, RDW	5/22/2000	PCBs	Total Aroclors	0.7	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
East Landfill	B-4DAUG	GSI	5/22/2000	PCBs-Filtered	Total Aroclors	0.34	Monitoring well is not located within the groundwater surface water interface.
East Landfill	B-5CAUG	GSI, RDW	7/12/1995	Inorganics-Filtered	Vanadium	35	Monitoring well is not located within the groundwater surface water interface and residential criteria do not apply to this area of the site.
East Landfill	B-5CAUG	IDW, RDW	7/12/1995	Inorganics-Filtered	Iron	13,200	Restrictive Covenant prevents use of the groundwater as a drinking water source.
East Landfill	B-6BAUG	GSI	7/21/1995	Inorganics	Cyanide, Total	5.4	Monitoring well is not located within the groundwater surface water interface.
East Landfill	B-6BAUG	GSI, RDW	7/21/1995	Inorganics-Filtered	Iron	24,600	Monitoring well is not located within the groundwater surface water interface and residential criteria do not apply to this area of the site.
East Landfill	B-6BAUG	GSI, RDW	6/6/1996	Inorganics-Filtered	Iron	29,100	Monitoring well is not located within the groundwater surface water interface and residential criteria do not apply to this area of the site.
East Landfill	B-6BAUG	GSI, RDW	6/6/1996	Inorganics-Filtered	Iron	28,700	Monitoring well is not located within the groundwater surface water interface and residential criteria do not apply to this area of the site.
East Landfill	B-6CAUG	GSI, RDW	7/21/1995	Inorganics-Filtered	Iron	16,600	Monitoring well is not located within the groundwater surface water interface and residential criteria do not apply to this area of the site.

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
East Landfill	B-6CAUG	GSI, RDW	6/6/1996	Inorganics-Filtered	Iron	17,600	Monitoring well is not located within the groundwater surface water interface and residential criteria do not apply to this area of the site.
East Landfill	B-6DAUG	GSI, IDW, RDW	7/21/1995	Inorganics-Filtered	Cadmium	15.3 J	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
East of Green Point Landfill	MW-2B	IDW, RDW	7/27/1995	Semivolatiles	bis(2-Ethylhexyl)phthalate	13	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	BBL-MW1	GSI	6/20/1996	Volatiles	Xylenes, Total	210	Monitoring well is not located within the groundwater surface water interface.
Former UST #7	BBL-MW1	GSI, IDW, RDW	6/20/1996	Volatiles	1,2,4-Trimethylbenzene	650	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	BBL-MW1	GSI, IDW, RDW	6/20/1996	Volatiles	1,3,5-Trimethylbenzene	240	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	BBL-MW1	GSI, IDW, RDW	6/20/1996	Volatiles	Benzene	16 J	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	BBL-MW1	GSI, IDW, RDW	6/20/1996	Volatiles	Ethylbenzene	130	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	BBL-MW1	GSI, IDW, RDW	7/31/1998	Volatiles	Benzene	13	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	BBL-MW1	GSI	10/27/1998	Volatiles	Ethylbenzene	30	Monitoring well is not located within the groundwater surface water interface.
Former UST #7	BBL-MW1	GSI	10/27/1998	Volatiles	Xylenes, Total	45	Monitoring well is not located within the groundwater surface water interface.
Former UST #7	BBL-MW1	IDW, RDW	10/27/1998	Volatiles	Benzene	10	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	BBL-MW1	GSI	1/28/1999	Volatiles	Ethylbenzene	32	Monitoring well is not located within the groundwater surface water interface.
Former UST #7	BBL-MW1	GSI	1/28/1999	Volatiles	Xylenes, Total	54	Monitoring well is not located within the groundwater surface water interface.
Former UST #7	BBL-MW1	GSI, IDW, RDW	1/28/1999	Volatiles	Benzene	26	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	BBL-MW1	GSI	4/12/1999	Volatiles	Ethylbenzene	30	Monitoring well is not located within the groundwater surface water interface.
Former UST #7	BBL-MW1	GSI	4/12/1999	Volatiles	Xylenes, Total	50	Monitoring well is not located within the groundwater surface water interface.

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GENERAL MOTORS CORPORATION
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SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Former UST #7	BBL-MW1	GSI, IDW, RDW	4/12/1999	Volatiles	Benzene	20	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	BBL-MW1	GSI, IDW, RDW	7/14/1999	Volatiles	Benzene	27	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	BBL-MW1	IDW, RDW	10/22/1999	Volatiles	Benzene	6	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	BBL-MW1	IDW	5/18/2000	Inorganics	Lead	10	Industrial drinking water is not a complete exposure pathway.
Former UST #7	BBL-MW1	RDW	5/18/2000	Inorganics	Lead	10	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	BBL-MW1	GSI	5/18/2000	Volatiles	1,2,4-Trimethylbenzene	55	Monitoring well is not located within the groundwater surface water interface.
Former UST #7	BBL-MW1	IDW, RDW	5/18/2000	Volatiles	Benzene	8.1	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	BBL-MW1	IDW, RDW	8/4/2004	Volatiles	Benzene	33	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	BBL-MW1	GSI	8/4/2004	Volatiles	Ethylbenzene	19	Monitoring well is not located within the groundwater surface water interface.
Former UST #7	BBL-MW1	IDW, RDW	2/5/2005	Volatiles	Benzene	36	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	BBL-MW1	GSI	2/5/2005	Volatiles	Ethylbenzene	27	Monitoring well is not located within the groundwater surface water interface.
Former UST #7	BBL-MW1	GSI	2/22/2005	Volatiles	1,2,4-Trimethylbenzene	26	Monitoring well is not located within the groundwater surface water interface.
Former UST #7	BBL-MW1	RDW	2/22/2005	Volatiles	n-Propylbenzene	100	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	BBL-MW1	IDW, RDW	8/5/2005	Volatiles	Benzene	37	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	BBL-MW1	GSI	8/5/2005	Volatiles	Ethylbenzene	25	Monitoring well is not located within the groundwater surface water interface.
Former UST #7	BBL-MW1	RDW	8/22/2005	Volatiles	n-Propylbenzene	97	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	BBL-MW1	IDW, RDW	3/13/2008	Volatiles	Benzene	22	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	BBL-MW1	GSI	3/13/2008	Volatiles	Ethylbenzene	32	Monitoring well is not located within the groundwater surface water interface.
Former UST #7	BBL-MW2	GSI, IDW, RDW	6/18/1996	Volatiles	1,2,4-Trimethylbenzene	110	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Former UST #7	BBL-MW2	GSI, IDW, RDW	6/18/1996	Volatiles	1,2,4-Trimethylbenzene	91	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	BBL-MW2	GSI, IDW, RDW	6/18/1996	Volatiles	Ethylbenzene	93	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	BBL-MW2	GSI, IDW, RDW	6/18/1996	Volatiles	Ethylbenzene	92	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	BBL-MW2	IDW, RDW	6/18/1996	Volatiles	Benzene	7.8 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	BBL-MW2	IDW, RDW	6/18/1996	Volatiles	Benzene	7.2 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	BBL-MW2	GSI, RDW, IDW	5/19/2000	Inorganics	Lead	41.6	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	BBL-MW2	GSI, IDW, RDW	5/19/2000	Volatiles	Benzene	26	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	BBL-MW3	GSI, RDW, IDW	6/18/1996	Volatiles	Benzene	91	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	BBL-MW3	GSI, RDW, IDW	5/17/2000	Volatiles	Benzene	18 B	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	BBL-MW3	IDW, RDW	2/6/2006	Volatiles	Benzene	36	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	BBL-MW3	GSI	2/6/2006	Volatiles	Ethylbenzene	29	Monitoring well is not located within the groundwater surface water interface.
Former UST #7	BBL-MW3	IDW, RDW	8/6/2006	Volatiles	Benzene	44	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	BBL-MW3	GSI	8/6/2006	Volatiles	Ethylbenzene	52	Monitoring well is not located within the groundwater surface water interface.
Former UST #7	BBL-MW4	IDW, RDW	6/18/1996	Volatiles	Benzene	12	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	BBL-MW5	GSI	6/19/1996	Volatiles	Ethylbenzene	29	Monitoring well is not located within the groundwater surface water interface.
Former UST #7	BBL-MW5	GSI, RDW, IDW	6/19/1996	Volatiles	Benzene	290	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	BBL-MW5	GSI, RDW, IDW	5/19/2000	Volatiles	Benzene	89	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Former UST #7	TW-229S1	GSI	2/2/1995	Semivolatiles	Fluoranthene	1.7 J	Monitoring well is not located within the groundwater surface water interface.
Former UST #7	TW-229S1	IDW, RDW	2/2/1995	Semivolatiles	bis(2-Ethylhexyl)phthalate	11	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	TW-229WT	GSI	1/31/1995	Inorganics-Filtered	Zinc	335	Monitoring well is not located within the groundwater surface water interface.
Former UST #7	TW-229WT	GCC, IDW, RDW, WS	1/31/1995	Semivolatiles	Chrysene	5.8 J	Temporary well - dismissed as an anomaly (HHE Section p 4-10)
Former UST #7	TW-229WT	GSI	1/31/1995	Semivolatiles	Fluoranthene	14 J	Monitoring well is not located within the groundwater surface water interface.
Former UST #7	TW-229WT	IDW, RDW	1/31/1995	Semivolatiles	bis(2-Ethylhexyl)phthalate	7 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	TW-239WT	GSI	2/2/1995	Inorganics	Cyanide, Total	12 J	Monitoring well is not located within the groundwater surface water interface.
Former UST #7	TW-239WT	IDW	2/2/1995	Inorganics-Filtered	Manganese	2,460	Industrial drinking water is not a complete exposure pathway.
Former UST #7	TW-239WT	RDW	2/2/1995	Inorganics-Filtered	Manganese	2,460	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	TW-239WT	GCC, GSI, IDW, IGVIA, RDW, RGVIA, WS	2/2/1995	PCBs	Total Aroclors	258	LNAPL was present at the time sampling (RI Section 4-15); not appropriate to use unfiltered data for comparison with standard; filtered sample (0.52) did not exceed standard (HHE Section 4-13' RI Table 4-12).
Former UST #7	TW-239WT	GSI	2/2/1995	Semivolatiles	Fluoranthene	5.2 J	Monitoring well is not located within the groundwater surface water interface.
Former UST #7	TW-239WT	GSI	2/2/1995	Semivolatiles	Phenanthrene	9.4 J	Monitoring well is not located within the groundwater surface water interface.
Former UST #7	TW-239WT	GSI	2/2/1995	Volatiles	Xylenes, Total	57	Monitoring well is not located within the groundwater surface water interface.
Former UST #7	TW-239WT	IDW, RDW	2/2/1995	Volatiles	Benzene	5.2	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	UST7-1	IDW, RDW	6/19/1996	Inorganics	Lead	6.4	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	UST7-1	GSI, IDW, RDW	6/19/1996	Volatiles	Benzene	290	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-1	IDW, RDW	5/18/2000	BIO	Sulfate	663,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	UST7-1	IDW, RDW	5/18/2000	Inorganics	Lead	27.7	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	UST7-1	GSI, IDW, RDW	5/18/2000	Volatiles	Benzene	97	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.

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GENERAL MOTORS CORPORATION
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SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Former UST #7	UST7-2	GSI, IDW, RDW	6/19/1996	Inorganics	Lead	114	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-2	GSI, IDW, RDW	6/19/1996	Volatiles	1,2,4-Trimethylbenzene	1,700	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-2	GSI, IDW, RDW	6/19/1996	Volatiles	1,3,5-Trimethylbenzene	450	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-2	GSI, IDW, RDW	6/19/1996	Volatiles	Benzene	950	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-2	GSI, IDW, RDW	6/19/1996	Volatiles	Ethylbenzene	1,700	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-2	GSI, IDW, RDW	6/19/1996	Volatiles	Xylenes, Total	3,600	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-2	IDW, RDW	7/31/1998	Volatiles	Benzene	6	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	UST7-2	GSI	1/28/1999	Volatiles	Ethylbenzene	23	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-2	GSI	4/12/1999	Volatiles	Ethylbenzene	40	Monitoring well is not located within the groundwater surface water interface.
Former UST #7	UST7-2	GSI	7/14/1999	Volatiles	Ethylbenzene	20	Monitoring well is not located within the groundwater surface water interface.
Former UST #7	UST7-2	IDW, RDW	10/22/1999	Volatiles	Benzene	10	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	UST7-2	GSI	10/22/1999	Volatiles	Ethylbenzene	20	Monitoring well is not located within the groundwater surface water interface.
Former UST #7	UST7-2	GSI	10/22/1999	Volatiles	Ethylbenzene	20	Monitoring well is not located within the groundwater surface water interface.
Former UST #7	UST7-2	IDW, RDW	5/17/2000	Inorganics	Iron	44,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	UST7-2	GSI, IDW, RDW	5/17/2000	Inorganics	Lead	35	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-2	IDW, RDW	5/17/2000	Inorganics-Filtered	Iron	43,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	UST7-2	GSI, IDW, RDW	5/17/2000	Volatiles	1,2,4-Trimethylbenzene	1,500	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Former UST #7	UST7-2	GSI, IDW, RDW	5/17/2000	Volatiles	1,3,5-Trimethylbenzene	750	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-2	GSI, IDW, RDW	5/17/2000	Volatiles	Benzene	1,500	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-2	GSI, IDW, RDW	5/17/2000	Volatiles	Ethylbenzene	1,200	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-2	GSI, IDW, RDW	5/17/2000	Volatiles	Xylenes, Total	1,200	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-2	GSI, IDW, RDW	8/4/2004	Volatiles	Benzene	2100	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-2	GSI, IDW, RDW	8/4/2004	Volatiles	Ethylbenzene	980	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-2	GSI	8/4/2004	Volatiles	Total Xylenes	400	Monitoring well is not located within the groundwater surface water interface.
Former UST #7	UST7-2	GSI, IDW, RDW	2/21/2005	Volatiles	Benzene	1600	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-2	GSI	2/22/2005	Volatiles	1,2,4-Trimethylbenzene	210	Monitoring well is not located within the groundwater surface water interface.
Former UST #7	UST7-2	GSI	2/22/2005	Volatiles	Ethylbenzene	420	Monitoring well is not located within the groundwater surface water interface.
Former UST #7	UST7-2	RDW	2/22/2005	Volatiles	n-Propylbenzene	180	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	UST7-2	GSI	2/22/2005	Volatiles	Total Xylenes	170	Monitoring well is not located within the groundwater surface water interface.
Former UST #7	UST7-2	GSI, IDW, RDW	8/5/2005	Volatiles	Benzene	2400	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-2	GSI	8/5/2005	Volatiles	Ethylbenzene	610	Monitoring well is not located within the groundwater surface water interface.
Former UST #7	UST7-2	IDW, RDW	8/5/2005	Inorganics	Lead	6.6	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	UST7-2	GSI	8/5/2005	Volatiles	Total Xylenes	210	Monitoring well is not located within the groundwater surface water interface.
Former UST #7	UST7-2	IDW, RDW	8/23/2005	Volatiles	n-Propylbenzene	270	Restrictive Covenant prevents use of the groundwater as a drinking water source.

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TABLE 2-3
SUMMARY OF SITE GROUNDWATER DATA THAT EXCEEDS GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Former UST #7	UST7-2	GSI, IDW, RDW	2/6/2006	Volatiles	Benzene	1900	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-2	GSI	2/6/2006	Volatiles	Ethylbenzene	450	Monitoring well is not located within the groundwater surface water interface.
Former UST #7	UST7-2	GSI, IDW, RDW	8/6/2006	Volatiles	Benzene	2300	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-2	GSI	8/6/2006	Volatiles	Ethylbenzene	610	Monitoring well is not located within the groundwater surface water interface.
Former UST #7	UST7-2	GSI, IDW, RDW	3/13/2008	Volatiles	Benzene	2100	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-2	GSI	3/13/2008	Volatiles	Ethylbenzene	240	Monitoring well is not located within the groundwater surface water interface.
Former UST #7	UST7-2	GSI	3/13/2008	Volatiles	Total Xylenes	36 J	Monitoring well is not located within the groundwater surface water interface.
Former UST #7	UST7-3R	GSI, IDW, RDW	7/31/1998	Volatiles	Benzene	14	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-3R	IDW, RDW	10/27/1998	Volatiles	Benzene	12	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	UST7-3R	GSI, IDW, RDW	4/12/1999	Volatiles	Benzene	18	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-3R	GSI, IDW, RDW	7/14/1999	Volatiles	Benzene	24	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-3R	GSI, IDW, RDW	10/22/1999	Volatiles	Benzene	50	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-3R	GSI, IDW, RDW	1/1/2000	Volatiles	Benzene	30	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-3R	GSI, IDW, RDW	5/19/2000	Volatiles	Benzene	13	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-3R	GSI, IDW, RDW	8/23/2000	Volatiles	Benzene	28	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-3R	IDW, RDW	8/4/2004	Volatiles	Benzene	16	Restrictive Covenant prevents use of the groundwater as a drinking water source.

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Former UST #7	UST7-3R	IDW, RDW	2/21/2005	Volatiles	Benzene	11	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	UST7-3R	IDW, RDW	8/5/2005	Volatiles	Benzene	12	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	UST7-3R	IDW, RDW	8/6/2006	Volatiles	Benzene	8.9	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	UST7-4	GSI, IDW, RDW	6/1/1994	Volatiles	Benzene	110	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-4	GSI, IDW, RDW	6/19/1996	Volatiles	Benzene	44	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-4	GSI, IDW, RDW	7/31/1998	Volatiles	Benzene	14	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-4	IDW, RDW	10/27/1998	Volatiles	Benzene	10	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	UST7-4	GSI, IDW, RDW	1/28/1999	Volatiles	Benzene	17	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-4	IDW, RDW	4/12/1999	Volatiles	Benzene	7	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	UST7-4	IDW, RDW	1/1/2000	Inorganics	Lead	17	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	UST7-4	IDW, RDW	5/18/2000	Inorganics	Lead	9.4	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	UST7-4	IDW, RDW	5/18/2000	Volatiles	Benzene	6	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	UST7-5	GSI, IDW, RDW	6/19/1996	Inorganics	Lead	46.4	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-5	GSI, IDW, RDW	6/19/1996	Volatiles	1,2,4-Trimethylbenzene	2,400	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-5	GSI, IDW, RDW	6/19/1996	Volatiles	1,3,5-Trimethylbenzene	650	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-5	GSI, IDW, RDW	6/19/1996	Volatiles	Benzene	1,600	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-5	GSI, IDW, RDW	6/19/1996	Volatiles	Ethylbenzene	1,800	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Former UST #7	UST7-5	GSI, IDW, RDW	6/19/1996	Volatiles	Toluene	1,400	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-5	GSI, IDW, RDW	6/19/1996	Volatiles	Xylenes, Total	6,900	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-5	GSI, IDW, RDW	7/31/1998	Volatiles	Benzene	1,900	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-5	GSI, IDW, RDW	7/31/1998	Volatiles	Toluene	930	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-5	GSI, IDW, RDW	7/31/1998	Volatiles	Xylenes, Total	7,900	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-5	GSI, IDW, RDW	10/27/1998	Volatiles	Benzene	1,390	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-5	GSI, IDW, RDW	10/27/1998	Volatiles	Ethylbenzene	1,330	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-5	GSI, IDW, RDW	10/27/1998	Volatiles	Toluene	990	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-5	GSI, IDW, RDW	10/27/1998	Volatiles	Xylenes, Total	5,120	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-5	IDW, RDW	1/28/1999	Inorganics-Filtered	Lead	10	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	UST7-5	GSI, IDW, RDW	1/28/1999	Volatiles	Benzene	190	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-5	GSI, IDW, RDW	1/28/1999	Volatiles	Ethylbenzene	680	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-5	GSI	1/28/1999	Volatiles	Toluene	450	Monitoring well is not located within the groundwater surface water interface.
Former UST #7	UST7-5	GSI, IDW, RDW	1/28/1999	Volatiles	Xylenes, Total	4,440	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-5	GSI, IDW, RDW	4/12/1999	Volatiles	Benzene	400	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Former UST #7	UST7-5	GSI, IDW, RDW	4/12/1999	Volatiles	Ethylbenzene	890	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-5	GSI	4/12/1999	Volatiles	Toluene	400	Monitoring well is not located within the groundwater surface water interface.
Former UST #7	UST7-5	GSI, IDW, RDW	4/12/1999	Volatiles	Xylenes, Total	6,540	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-5	GSI, IDW, RDW	7/14/1999	Volatiles	Benzene	300	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-5	GSI, IDW, RDW	7/14/1999	Volatiles	Ethylbenzene	240	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-5	GSI, IDW, RDW	7/14/1999	Volatiles	Toluene	240	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-5	GSI, IDW, RDW	7/14/1999	Volatiles	Xylenes, Total	3,470	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-5	GSI, IDW, RDW	10/22/1999	Volatiles	Benzene	20	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-5	GSI, IDW, RDW	10/22/1999	Volatiles	Ethylbenzene	110	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-5	GSI, IDW, RDW	10/22/1999	Volatiles	Xylenes, Total	860	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-5	GSI, IDW, RDW	1/1/2000	Volatiles	Benzene	23	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-5	GSI	1/1/2000	Volatiles	Ethylbenzene	71	Monitoring well is not located within the groundwater surface water interface.
Former UST #7	UST7-5	GSI, IDW, RDW	1/1/2000	Volatiles	Xylenes, Total	354	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-5	IDW, RDW	5/17/2000	Inorganics	Iron	29,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	UST7-5	IDW, RDW	5/17/2000	Inorganics	Lead	20.3	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	UST7-5	IDW, RDW	5/17/2000	Inorganics	Lead	12.9	Restrictive Covenant prevents use of the groundwater as a drinking water source.

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Former UST #7	UST7-5	GSI, IDW, RDW	5/17/2000	Volatiles	1,2,4-Trimethylbenzene	190	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-5	GSI, IDW, RDW	5/17/2000	Volatiles	Benzene	42	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-5	GSI	5/17/2000	Volatiles	Ethylbenzene	71	Monitoring well is not located within the groundwater surface water interface.
Former UST #7	UST7-5	GSI, IDW, RDW	5/17/2000	Volatiles	Xylenes, Total	330	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-5	GSI, IDW, RDW	5/17/2000	Volatiles	1,2,4-Trimethylbenzene	260	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-5	GSI, IDW, RDW	5/17/2000	Volatiles	Benzene	56	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-5	GSI, IDW, RDW	5/17/2000	Volatiles	Ethylbenzene	83	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-5	GSI, IDW, RDW	5/17/2000	Volatiles	Xylenes, Total	360	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-5	GSI, IDW, RDW	8/23/2000	Volatiles	Benzene	160	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-5	GSI, IDW, RDW	8/23/2000	Volatiles	Ethylbenzene	100	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-5	IDW, RDW	8/4/2004	Volatiles	Benzene	120	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	UST7-5	GSI	8/4/2004	Volatiles	Ethylbenzene	96	Monitoring well is not located within the groundwater surface water interface.
Former UST #7	UST7-5	GSI	8/4/2004	Volatiles	Total Xylenes	460	Monitoring well is not located within the groundwater surface water interface.
Former UST #7	UST7-5	GSI	2/21/2005	Volatiles	1,2,4-Trimethylbenzene	200	Monitoring well is not located within the groundwater surface water interface.
Former UST #7	UST7-5	GSI	2/21/2005	Volatiles	1,3,5-Trimethylbenzene	86	Monitoring well is not located within the groundwater surface water interface.
Former UST #7	UST7-5	IDW, RDW	2/21/2005	Volatiles	Benzene	140	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	UST7-5	GSI	2/21/2005	Volatiles	Ethylbenzene	78	Monitoring well is not located within the groundwater surface water interface.

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GENERAL MOTORS CORPORATION
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SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Former UST #7	UST7-5	GSI	2/21/2005	Volatiles	Naphthalene	38	Monitoring well is not located within the groundwater surface water interface.
Former UST #7	UST7-5	GSI	2/21/2005	Volatiles	Total Xylenes	450	Monitoring well is not located within the groundwater surface water interface.
Former UST #7	UST7-5	GSI, IDW, RDW	8/5/2005	Volatiles	Benzene	340	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-5	GSI	8/5/2005	Volatiles	Ethylbenzene	230	Monitoring well is not located within the groundwater surface water interface.
Former UST #7	UST7-5	GSI	8/5/2005	Volatiles	Total Xylenes	1060	Monitoring well is not located within the groundwater surface water interface.
Former UST #7	UST7-5	GSI	8/22/2005	Volatiles	1,2,4-Trimethylbenzene	500	Monitoring well is not located within the groundwater surface water interface.
Former UST #7	UST7-5	GSI	8/22/2005	Volatiles	Naphthalene	110	Monitoring well is not located within the groundwater surface water interface.
Former UST #7	UST7-5	GSI, IDW, RDW	2/6/2006	Volatiles	Benzene	390	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-5	GSI	2/6/2006	Volatiles	Ethylbenzene	450	Monitoring well is not located within the groundwater surface water interface.
Former UST #7	UST7-5	GSI	2/6/2006	Volatiles	Total Xylenes	1500	Monitoring well is not located within the groundwater surface water interface.
Former UST #7	UST7-5	GSI, IDW, RDW	8/6/2006	Volatiles	Benzene	430	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Former UST #7	UST7-5	GSI	8/6/2006	Volatiles	Ethylbenzene	440	Monitoring well is not located within the groundwater surface water interface.
Former UST #7	UST7-5	GSI	8/6/2006	Volatiles	Total Xylenes	2000	Monitoring well is not located within the groundwater surface water interface.
Former UST #7	UST7-5	IDW, RDW	3/13/2008	Volatiles	Benzene	42 [45]	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Former UST #7	UST7-5	GSI	3/13/2008	Volatiles	Ethylbenzene	20	Monitoring well is not located within the groundwater surface water interface.
Former UST #7	UST7-5	GSI	3/13/2008	Volatiles	Total Xylenes	100 [110]	Monitoring well is not located within the groundwater surface water interface.
Former UST #7	UST7-6	GSI, IDW, RDW	6/19/1996	Volatiles	Benzene	69	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-117S1	GSI	6/20/1995	Inorganics-Filtered	Barium	1,410	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-117S1	GSI	7/14/1995	Miscellaneous	Chloride	230,000	Monitoring well is not located within the groundwater surface water interface.

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SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Green Point Landfill	MW-117S1	GSI	6/11/1996	Inorganics-Filtered	Barium	1,670	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-117S1	GSI	5/19/2000	Inorganics-Filtered	Barium	1,720	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-117S1	GSI, IDW, RDW	5/19/2000	Inorganics-Filtered	Thallium	5 B	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-117S1	GSI	5/19/2000	Miscellaneous	Nitrogen, Ammonia	5,100	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-117S1	GSI, IDW, RDW	5/19/2000	Miscellaneous	Chloride	284,000 J	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-117S1	GSI	6/19/2001	Inorganics-Filtered	Barium	1,740	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-117S1	GSI, IDW, RDW	6/19/2001	Miscellaneous	Chloride	269,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-117S1	GSI, IDW, RDW	6/19/2001	Miscellaneous	Nitrogen, Ammonia	11,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-117S1	GSI	6/26/2002	Inorganics-Filtered	Barium	1,740	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-117S1	GSI	6/26/2002	Miscellaneous	Nitrogen, Ammonia	7,100	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-117S1	GSI, IDW, RDW	6/26/2002	Miscellaneous	Chloride	270,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-117S1	GSI	6/19/2003	Inorganics-Filtered	Barium	1,800	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-117S1	GSI	6/19/2003	Miscellaneous	Nitrogen, Ammonia	7,400	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-117S1	GSI, IDW, RDW	6/19/2003	Miscellaneous	Chloride	264,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-117S1	GSI	5/27/2004	Inorganics-Filtered	Barium	1,780	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-117S1	GSI	5/27/2004	Miscellaneous	Nitrogen, Ammonia	7,300	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-117S1	GSI, IDW, RDW	5/27/2004	Miscellaneous	Chloride	275,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-117S1	GSI	6/23/2005	Inorganics-Filtered	Barium	1530 J	Monitoring well is not located within the groundwater surface water interface.

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TABLE 2-3
SUMMARY OF SITE GROUNDWATER DATA THAT EXCEEDS GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Green Point Landfill	MW-117S1	IDW, RDW	6/23/2005	Miscellaneous	Chloride	270000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-117S1	GSI	6/23/2005	Miscellaneous	Estimated Un-ionized Ammonia	604.8 J	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-117S1	GSI	6/23/2005	Inorganics-Filtered	Selenium	5.4	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-117S1	GSI, IDW, RDW	6/23/2005	Miscellaneous	TDS	970000 J	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-117S1	GSI, IDW, RDW	12/13/2006	Inorganics-Filtered	Barium	2010	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-117S1	IDW, RDW	12/13/2006	Miscellaneous	Chloride	267000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-117S1	GSI	12/13/2006	Miscellaneous	Estimated Un-ionized Ammonia	590.4	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-117S1	GSI, IDW, RDW	12/13/2006	Miscellaneous	TDS	960000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-117S1	IDW, RDW	12/7/2007	Miscellaneous	Ammonia Nitrogen	22000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-117S1	GSI	12/7/2007	Inorganics-Filtered	Barium	1890	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-117S1	IDW, RDW	12/7/2007	Miscellaneous	Chloride	268000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-117S1	GSI	12/7/2007	Miscellaneous	Estimated Un-ionized Ammonia	1584	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-117S1	RDW	12/7/2007	Inorganics-Filtered	Sodium	129000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-117S1	GSI, IDW, RDW	12/7/2007	Miscellaneous	TDS	950000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-117S1	GSI	3/14/2008	Inorganics-Filtered	Barium	1810	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-117S1	IDW, RDW	3/14/2008	Miscellaneous	Chloride	274000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-117S1	GSI	3/14/2008	Miscellaneous	Estimated Un-ionized Ammonia	86.4	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-117S1	GSI, IDW, RDW	3/14/2008	Miscellaneous	TDS	940000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-117S2	IDW, RDW	6/20/1995	Semivolatiles	bis(2-Ethylhexyl)phthalate	12 B	Restrictive Covenant prevents use of the groundwater as a drinking water source.

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Green Point Landfill	MW-117S2	GSI	7/14/1995	Miscellaneous	Phosphorous, Total	1,200	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-117S2	GSI, IDW, RDW	7/14/1995	Miscellaneous	Chloride	320,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-117S2	IDW, RDW	12/13/2006	Inorganics-Filtered	Arsenic	13.5	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-117S2	IDW, RDW	12/13/2006	Miscellaneous	Chloride	368000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-117S2	GSI	12/13/2006	Miscellaneous	Estimated Un-ionized Ammonia	280.8	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-117S2	RDW	12/13/2006	Inorganics-Filtered	Sodium	195000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-117S2	GSI, IDW, RDW	12/13/2006	Miscellaneous	TDS	1000000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-117S2	IDW, RDW	12/7/2007	Inorganics-Filtered	Arsenic	14.9	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-117S2	IDW, RDW	12/7/2007	Miscellaneous	Chloride	378000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-117S2	GSI	12/7/2007	Miscellaneous	Estimated Un-ionized Ammonia	280.8	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-117S2	RDW	12/7/2007	Inorganics-Filtered	Sodium	216000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-117S2	GSI, IDW, RDW	12/7/2007	Miscellaneous	TDS	1000000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-117S2	IDW, RDW	4/1/2008	Miscellaneous	Chloride	411000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-117S2	GSI	4/1/2008	Miscellaneous	Estimated Un-ionized Ammonia	273.6	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-117S2	RDW	4/1/2008	Inorganics-Filtered	Sodium	192000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-117S2	GSI, IDW, RDW	4/1/2008	Miscellaneous	TDS	1000000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-117WT	GSI, IDW, RDW	6/20/1995	Inorganics-Filtered	Barium	2,210	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-117WT	GSI, IDW, RDW	6/20/1995	Inorganics-Filtered	Manganese	5,130	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Green Point Landfill	MW-117WT	IDW, RDW	6/20/1995	Inorganics-Filtered	Aluminum	350	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-117WT	IDW, RDW	6/20/1995	Inorganics-Filtered	Iron	100,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-117WT	RDW	6/20/1995	Inorganics-Filtered	Magnesium	485,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-117WT	GSI, IDW, RDW	7/14/1995	Miscellaneous	Chloride	4,600,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-117WT	GSI, IDW, RDW	7/14/1995	Miscellaneous	Nitrogen, Ammonia	3,0000 J	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-117WT	GSI, IDW, RDW	6/11/1996	Inorganics-Filtered	Barium	2,520	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-117WT	GSI, IDW, RDW	6/11/1996	Inorganics-Filtered	Manganese	5,190	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-117WT	IDW, RDW	6/11/1996	Inorganics-Filtered	Iron	124,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-117WT	RDW	6/11/1996	Inorganics-Filtered	Magnesium	545,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-117WT	GSI, IDW, RDW	5/19/2000	Inorganics-Filtered	Barium	3,580	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-117WT	GSI, IDW, RDW	5/19/2000	Inorganics-Filtered	Manganese	5,510	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-117WT	GSI, IDW, RDW	5/19/2000	Inorganics-Filtered	Thallium	17.9	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-117WT	IDW, RDW	5/19/2000	Inorganics-Filtered	Iron	149,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-117WT	RDW	5/19/2000	Inorganics-Filtered	Magnesium	593,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-117WT	GSI, IDW, RDW	5/19/2000	Miscellaneous	Chloride	493,0000 J	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-117WT	GSI, IDW, RDW	5/19/2000	Miscellaneous	Nitrogen, Ammonia	46,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Green Point Landfill	MW-117WT	GSI, IDW, RDW	6/18/2001	Inorganics-Filtered	Barium	3,170	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-117WT	GSI, IDW, RDW	6/18/2001	Inorganics-Filtered	Manganese	4,900	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-117WT	IDW, RDW	6/18/2001	Inorganics-Filtered	Iron	137,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-117WT	RDW	6/18/2001	Inorganics-Filtered	Magnesium	550,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-117WT	GSI, IDW, RDW	6/18/2001	Miscellaneous	Chloride	5,380,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-117WT	GSI, IDW, RDW	6/18/2001	Miscellaneous	Nitrogen, Ammonia	63,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-117WT	GSI, IDW, RDW	6/26/2002	Inorganics-Filtered	Barium	2,970	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-117WT	GSI, IDW, RDW	6/26/2002	Inorganics-Filtered	Manganese	4,850	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-117WT	GSI, IDW, RDW	6/26/2002	Inorganics-Filtered	Thallium	8.9 B J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-117WT	IDW, RDW	6/26/2002	Inorganics-Filtered	Iron	128,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-117WT	RDW	6/26/2002	Inorganics-Filtered	Magnesium	518,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-117WT	GSI, IDW, RDW	6/26/2002	Miscellaneous	Chloride	5,540,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-117WT	GSI, IDW, RDW	6/19/2003	Inorganics-Filtered	Barium	3,250	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-117WT	GSI, IDW, RDW	6/19/2003	Inorganics-Filtered	Manganese	5,480	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-117WT	IDW, RDW	6/19/2003	Inorganics-Filtered	Iron	139,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-117WT	RDW	6/19/2003	Inorganics-Filtered	Magnesium	584,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.

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SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Green Point Landfill	MW-117WT	GSI, IDW, RDW	6/19/2003	Miscellaneous	Chloride	4,680,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-117WT	GSI, IDW, RDW	6/19/2003	Miscellaneous	Nitrogen, Ammonia	63,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-117WT	GSI	12/9/2004	Inorganics-Filtered	Selenium	14 J	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-117WT	GSI	12/9/2004	Inorganics-Filtered	Selenium	14.3 J	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-117WT	GSI, IDW, RDW	12/9/2004	Inorganics-Filtered	Barium	3,110 J	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-117WT	GSI, IDW, RDW	12/9/2004	Inorganics-Filtered	Barium	2,880 J	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-117WT	GSI, IDW, RDW	12/9/2004	Inorganics-Filtered	Manganese	5,150 J	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-117WT	IDW, RDW	12/9/2004	Inorganics-Filtered	Iron	143,000 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-117WT	IDW, RDW	12/9/2004	Inorganics-Filtered	Iron	125,000 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-117WT	IDW, RDW	12/9/2004	Inorganics-Filtered	Manganese	3,970 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-117WT	GSI, IDW, RDW	12/9/2004	Miscellaneous	Chloride	4,650,000 J	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-117WT	GSI, IDW, RDW	12/9/2004	Miscellaneous	Chloride	4,420,000 J	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-117WT	GSI, IDW, RDW	12/9/2004	Miscellaneous	Nitrogen, Ammonia	65,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-117WT	GSI, IDW, RDW	12/9/2004	Miscellaneous	Nitrogen, Ammonia	69,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-117WT	IDW, RDW	12/9/2004	Miscellaneous	Ammonia Nitrogen	65000 [69000]	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-117WT	GSI, IDW, RDW	12/9/2004	Inorganics-Filtered	Barium	3110 J [2330 J]	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.

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Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Green Point Landfill	MW-117WT	IDW, RDW	12/9/2004	Miscellaneous	Chloride	4650000 J [4420000 J]	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-117WT	GSI	12/9/2004	Miscellaneous	Estimated Un-ionized Ammonia	4680 [4968]	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-117WT	IDW, RDW	12/9/2004	Inorganics-Filtered	Iron	143000 J [125000 J]	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-117WT	GSI, IDW, RDW	12/9/2004	Inorganics-Filtered	Manganese	5150 J [3790 J]	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-117WT	GSI	12/9/2004	Inorganics-Filtered	Selenium	14 J [14.3 J]	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-117WT	GSI, IDW, RDW	12/9/2004	Miscellaneous	TDS	7800000 J [7900000 J]	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-117WT	IDW, RDW	12/9/2004	Miscellaneous	Ammonia Nitrogen	65001 [69000]	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-117WT	IDW, RDW	6/23/2005	Miscellaneous	Ammonia Nitrogen	59000 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-117WT	GSI, IDW, RDW	6/23/2005	Inorganics-Filtered	Barium	2360 J	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-117WT	IDW, RDW	6/23/2005	Miscellaneous	Chloride	3970000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-117WT	GSI	6/23/2005	Miscellaneous	Estimated Un-ionized Ammonia	4248 J	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-117WT	IDW, RDW	6/23/2005	Inorganics-Filtered	Iron	122000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-117WT	RDW	6/23/2005	Inorganics-Filtered	Magnesium	471000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-117WT	IDW, RDW	6/23/2005	Inorganics-Filtered	Manganese	3810 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-117WT	GSI	6/23/2005	Inorganics-Filtered	Selenium	16.1	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-117WT	IDW, RDW	6/23/2005	Inorganics-Filtered	Sodium	564000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-117WT	GSI, IDW, RDW	6/23/2005	Miscellaneous	TDS	9600000 J	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-117WT	IDW, RDW	6/23/2005	Miscellaneous	Ammonia Nitrogen	59001 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-117WT	IDW, RDW	12/13/2006	Miscellaneous	Ammonia Nitrogen	75000	Restrictive Covenant prevents use of the groundwater as a drinking water source.

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TABLE 2-3
SUMMARY OF SITE GROUNDWATER DATA THAT EXCEEDS GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Green Point Landfill	MW-117WT	GSI, IDW, RDW	12/13/2006	Inorganics-Filtered	Barium	2710	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-117WT	IDW, RDW	12/13/2006	Miscellaneous	Chloride	3680000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-117WT	GSI	12/13/2006	Miscellaneous	Estimated Un-ionized Ammonia	5400	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-117WT	IDW, RDW	12/13/2006	Inorganics-Filtered	Iron	105000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-117WT	IDW, RDW	12/13/2006	Inorganics-Filtered	Manganese	4000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-117WT	GSI	12/13/2006	Inorganics-Filtered	Mercury	0.11 J	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-117WT	IDW, RDW	12/13/2006	Miscellaneous	Nitrite (as N)	3600	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-117WT	IDW, RDW	12/13/2006	Inorganics-Filtered	Sodium	531000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-117WT	GSI, IDW, RDW	12/13/2006	Miscellaneous	TDS	7800000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-117WT	IDW, RDW	12/7/2007	Miscellaneous	Ammonia Nitrogen	68000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-117WT	GSI, IDW, RDW	12/7/2007	Inorganics-Filtered	Barium	2880	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-117WT	IDW, RDW	12/7/2007	Miscellaneous	Chloride	3690000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-117WT	GSI	12/7/2007	Miscellaneous	Estimated Un-ionized Ammonia	4896	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-117WT	IDW, RDW	12/7/2007	Inorganics-Filtered	Iron	124000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-117WT	RDW	12/7/2007	Inorganics-Filtered	Magnesium	466000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-117WT	GSI, IDW, RDW	12/7/2007	Inorganics-Filtered	Manganese	4460	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-117WT	IDW, RDW	12/7/2007	Inorganics-Filtered	Sodium	620000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-117WT	GSI, IDW, RDW	12/7/2007	Miscellaneous	TDS	7600000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-117WT	IDW, RDW	3/14/2008	Miscellaneous	Ammonia Nitrogen	68000	Restrictive Covenant prevents use of the groundwater as a drinking water source.

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SUMMARY OF SITE GROUNDWATER DATA THAT EXCEEDS GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Green Point Landfill	MW-117WT	GSI, IDW, RDW	3/14/2008	Inorganics-Filtered	Barium	2670	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-117WT	IDW, RDW	3/14/2008	Miscellaneous	Chloride	3220000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-117WT	GSI	3/14/2008	Miscellaneous	Estimated Un-ionized Ammonia	4896	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-117WT	IDW, RDW	3/14/2008	Inorganics-Filtered	Iron	112000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-117WT	RDW	3/14/2008	Inorganics-Filtered	Magnesium	441000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-117WT	IDW, RDW	3/14/2008	Inorganics-Filtered	Manganese	4160	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-117WT	IDW, RDW	3/14/2008	Inorganics-Filtered	Sodium	545000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-117WT	GSI, IDW, RDW	3/14/2008	Miscellaneous	TDS	5900000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-118S1	GSI	7/14/1995	Miscellaneous	Nitrogen, Ammonia	4,800 J	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-118S1	GSI, IDW, RDW	7/14/1995	Miscellaneous	Chloride	260,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-118S1	GSI, IDW, RDW	5/17/2000	Inorganics-Filtered	Thallium	5.4 B	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-118S1	GSI	5/17/2000	Miscellaneous	Nitrogen, Ammonia	5,900	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-118S1	GSI	5/17/2000	Miscellaneous	Nitrogen, Ammonia	6,200	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-118S1	GSI, IDW, RDW	5/17/2000	Miscellaneous	Chloride	284,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-118S1	GSI, IDW, RDW	5/17/2000	Miscellaneous	Chloride	281,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-118S1	GSI	6/19/2001	Miscellaneous	Nitrogen, Ammonia	8,400	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-118S1	GSI, IDW, RDW	6/19/2001	Miscellaneous	Chloride	272,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-118S1	GSI	6/27/2002	Miscellaneous	Nitrogen, Ammonia	7,300	Monitoring well is not located within the groundwater surface water interface.

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SUMMARY OF SITE GROUNDWATER DATA THAT EXCEEDS GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Green Point Landfill	MW-118S1	GSI, IDW, RDW	6/27/2002	Miscellaneous	Chloride	286,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-118S1	GSI	6/19/2003	Miscellaneous	Nitrogen, Ammonia	6,200	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-118S1	GSI, IDW, RDW	6/19/2003	Miscellaneous	Chloride	264,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-118S1	GSI	12/9/2004	Miscellaneous	Nitrogen, Ammonia	5,900	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-118S1	GSI, IDW, RDW	12/9/2004	Miscellaneous	Chloride	27,0000 J	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-118S1	IDW, RDW	12/9/2004	Miscellaneous	Chloride	270000 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-118S1	GSI	12/9/2004	Miscellaneous	Estimated Un-ionized Ammonia	424.8	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-118S1	GSI	12/9/2004	Inorganics-Filtered	Selenium	5.9 J	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-118S1	GSI, IDW, RDW	12/9/2004	Miscellaneous	TDS	980000 J	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-118S1	IDW, RDW	6/23/2005	Miscellaneous	Chloride	296000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-118S1	GSI	6/23/2005	Miscellaneous	Estimated Un-ionized Ammonia	525.6 J	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-118S1	GSI, IDW, RDW	6/23/2005	Miscellaneous	TDS	520000 J	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-118S1	IDW, RDW	12/14/2006	Miscellaneous	Chloride	290000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-118S1	GSI	12/14/2006	Miscellaneous	Estimated Un-ionized Ammonia	576	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-118S1	GSI, IDW, RDW	12/14/2006	Miscellaneous	TDS	1000000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-118S1	IDW, RDW	12/7/2007	Miscellaneous	Chloride	275000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-118S1	GSI	12/7/2007	Miscellaneous	Estimated Un-ionized Ammonia	612	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-118S1	RDW	12/7/2007	Inorganics-Filtered	Sodium	131000	Restrictive Covenant prevents use of the groundwater as a drinking water source.

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SUMMARY OF SITE GROUNDWATER DATA THAT EXCEEDS GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Green Point Landfill	MW-118S1	GSI, IDW, RDW	12/7/2007	Miscellaneous	TDS	900000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-118S1	IDW, RDW	4/1/2008	Miscellaneous	Chloride	310000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-118S1	GSI	4/1/2008	Miscellaneous	Estimated Un-ionized Ammonia	583.2	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-118S1	GSI, IDW, RDW	4/1/2008	Miscellaneous	TDS	960000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-118S2	GSI	6/20/1995	Inorganics-Filtered	Silver	0.5	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-118S2	GSI, IDW, RDW	7/14/1995	Miscellaneous	Chloride	360,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-118S2	IDW, RDW	12/14/2006	Miscellaneous	Chloride	437000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-118S2	GSI	12/14/2006	Miscellaneous	Estimated Un-ionized Ammonia	216	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-118S2	RDW	12/14/2006	Inorganics-Filtered	Sodium	272000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-118S2	GSI, IDW, RDW	12/14/2006	Miscellaneous	TDS	1200000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-118S2	IDW, RDW	12/7/2007	Miscellaneous	Chloride	422000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-118S2	GSI	12/7/2007	Miscellaneous	Estimated Un-ionized Ammonia	86.4	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-118S2	RDW	12/7/2007	Inorganics-Filtered	Sodium	242000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-118S2	GSI, IDW, RDW	12/7/2007	Miscellaneous	TDS	1100000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-118S2	IDW, RDW	4/1/2008	Miscellaneous	Chloride	498000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-118S2	GSI	4/1/2008	Miscellaneous	Estimated Un-ionized Ammonia	115.2	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-118S2	GSI	4/1/2008	Inorganics-Filtered	Mercury	0.2	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-118S2	RDW	4/1/2008	Inorganics-Filtered	Sodium	262000	Restrictive Covenant prevents use of the groundwater as a drinking water source.

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SUMMARY OF SITE GROUNDWATER DATA THAT EXCEEDS GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Green Point Landfill	MW-118S2	GSI, IDW, RDW	4/1/2008	Miscellaneous	TDS	1100000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-118WT	GSI	6/20/1995	Inorganics-Filtered	Barium	1,970	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-118WT	GSI, IDW, RDW	6/20/1995	Inorganics-Filtered	Manganese	5,460	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-118WT	IDW, RDW	6/20/1995	Inorganics-Filtered	Aluminum	563	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-118WT	IDW, RDW	6/20/1995	Inorganics-Filtered	Iron	71,500	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-118WT	GSI	7/14/1995	Miscellaneous	Nitrogen, Ammonia	10,000 J	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-118WT	GSI, IDW, RDW	7/14/1995	Miscellaneous	Chloride	3,700,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-118WT	GSI, IDW, RDW	6/11/1996	Inorganics	Manganese	4,989	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-118WT	IDW, RDW	6/11/1996	Inorganics	Iron	81,940	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-118WT	GSI, IDW, RDW	6/11/1996	Inorganics-Filtered	Barium	2,420	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-118WT	GSI, IDW, RDW	6/11/1996	Inorganics-Filtered	Manganese	5,390	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-118WT	IDW, RDW	6/11/1996	Inorganics-Filtered	Iron	93,100	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-118WT	RDW	6/11/1996	Inorganics-Filtered	Magnesium	457,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-118WT	GSI, IDW, RDW	5/17/2000	Inorganics	Manganese	7,900	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-118WT	IDW, RDW	5/17/2000	Inorganics	Iron	250,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-118WT	GSI, IDW, RDW	5/17/2000	Inorganics-Filtered	Barium	7,970	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-118WT	GSI, IDW, RDW	5/17/2000	Inorganics-Filtered	Manganese	8,930	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Green Point Landfill	MW-118WT	GSI, IDW, RDW	5/17/2000	Inorganics-Filtered	Thallium	26.8	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-118WT	IDW, RDW	5/17/2000	Inorganics-Filtered	Iron	261,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-118WT	IDW, RDW	5/17/2000	Inorganics-Filtered	Magnesium	1,330,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-118WT	GSI, IDW, RDW	5/17/2000	Miscellaneous	Chloride	16,100,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-118WT	GSI, IDW, RDW	5/17/2000	Miscellaneous	Nitrogen, Ammonia	26,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-118WT	GSI, IDW, RDW	6/19/2001	Inorganics-Filtered	Barium	10,700	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-118WT	GSI, IDW, RDW	6/19/2001	Inorganics-Filtered	Barium	11,200	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-118WT	GSI, IDW, RDW	6/19/2001	Inorganics-Filtered	Cadmium	8.3	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-118WT	GSI, IDW, RDW	6/19/2001	Inorganics-Filtered	Cadmium	8.6	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-118WT	GSI, IDW, RDW	6/19/2001	Inorganics-Filtered	Manganese	7,740	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-118WT	GSI, IDW, RDW	6/19/2001	Inorganics-Filtered	Manganese	8,070	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-118WT	GSI, IDW, RDW	6/19/2001	Inorganics-Filtered	Thallium	6.5 B	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-118WT	IDW, RDW	6/19/2001	Inorganics-Filtered	Iron	330,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-118WT	IDW, RDW	6/19/2001	Inorganics-Filtered	Iron	344,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-118WT	IDW, RDW	6/19/2001	Inorganics-Filtered	Magnesium	1,760,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-118WT	IDW, RDW	6/19/2001	Inorganics-Filtered	Magnesium	1,840,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Green Point Landfill	MW-118WT	GSI, IDW, RDW	6/19/2001	Miscellaneous	Chloride	21,800,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-118WT	GSI, IDW, RDW	6/19/2001	Miscellaneous	Chloride	18,800,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-118WT	GSI, IDW, RDW	6/19/2001	Miscellaneous	Nitrogen, Ammonia	92,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-118WT	GSI, IDW, RDW	6/19/2001	Miscellaneous	Nitrogen, Ammonia	76,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-118WT	GSI, IDW, RDW	6/27/2002	Inorganics-Filtered	Barium	8,650	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-118WT	GSI, IDW, RDW	6/27/2002	Inorganics-Filtered	Barium	9,200	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-118WT	GSI, IDW, RDW	6/27/2002	Inorganics-Filtered	Manganese	6,250	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-118WT	GSI, IDW, RDW	6/27/2002	Inorganics-Filtered	Manganese	6,360	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-118WT	GSI, IDW, RDW	6/27/2002	Inorganics-Filtered	Thallium	18.8 J	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-118WT	GSI, IDW, RDW	6/27/2002	Inorganics-Filtered	Thallium	7.8 B J	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-118WT	IDW, RDW	6/27/2002	Inorganics-Filtered	Iron	259,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-118WT	IDW, RDW	6/27/2002	Inorganics-Filtered	Iron	277,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-118WT	IDW, RDW	6/27/2002	Inorganics-Filtered	Magnesium	1,390,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-118WT	IDW, RDW	6/27/2002	Inorganics-Filtered	Magnesium	1,470,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-118WT	GSI, IDW, RDW	6/27/2002	Miscellaneous	Chloride	16,900,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.

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TABLE 2-3
SUMMARY OF SITE GROUNDWATER DATA THAT EXCEEDS GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Green Point Landfill	MW-118WT	GSI, IDW, RDW	6/27/2002	Miscellaneous	Chloride	16,500,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-118WT	GSI, IDW, RDW	6/27/2002	Miscellaneous	Nitrogen, Ammonia	82,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-118WT	GSI, IDW, RDW	6/27/2002	Miscellaneous	Nitrogen, Ammonia	88,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-118WT	GSI, IDW, RDW	6/19/2003	Inorganics-Filtered	Barium	5,620	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-118WT	GSI, IDW, RDW	6/19/2003	Inorganics-Filtered	Barium	5,420	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-118WT	GSI, IDW, RDW	6/19/2003	Inorganics-Filtered	Cadmium	6.6	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-118WT	GSI, IDW, RDW	6/19/2003	Inorganics-Filtered	Cadmium	6	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-118WT	IDW, RDW	6/19/2003	Inorganics-Filtered	Iron	173,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-118WT	IDW, RDW	6/19/2003	Inorganics-Filtered	Iron	166,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-118WT	IDW, RDW	6/19/2003	Inorganics-Filtered	Manganese	4,110	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-118WT	IDW, RDW	6/19/2003	Inorganics-Filtered	Manganese	4,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-118WT	RDW	6/19/2003	Inorganics-Filtered	Magnesium	916, 000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-118WT	RDW	6/19/2003	Inorganics-Filtered	Magnesium	883,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-118WT	GSI, IDW, RDW	6/19/2003	Miscellaneous	Chloride	9,740,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-118WT	GSI, IDW, RDW	6/19/2003	Miscellaneous	Chloride	9,470,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-118WT	GSI, IDW, RDW	6/19/2003	Miscellaneous	Nitrogen, Ammonia	66,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.

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GENERAL MOTORS CORPORATION
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SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Green Point Landfill	MW-118WT	GSI, IDW, RDW	6/19/2003	Miscellaneous	Nitrogen, Ammonia	65,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-118WT	GSI, IDW, RDW	5/27/2004	Inorganics-Filtered	Barium	4,350	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-118WT	IDW, RDW	5/27/2004	Inorganics-Filtered	Iron	135,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-118WT	IDW, RDW	5/27/2004	Inorganics-Filtered	Manganese	3,080 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-118WT	RDW	5/27/2004	Inorganics-Filtered	Magnesium	721,000 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-118WT	GSI, IDW, RDW	5/27/2004	Miscellaneous	Chloride	7,580,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-118WT	GSI, IDW, RDW	5/27/2004	Miscellaneous	Nitrogen, Ammonia	66,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-118WT	IDW, RDW	6/23/2005	Miscellaneous	Ammonia Nitrogen	47000 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-118WT	GSI, IDW, RDW	6/23/2005	Inorganics-Filtered	Barium	2210 J	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-118WT	IDW, RDW	6/23/2005	Miscellaneous	Chloride	4670000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-118WT	GSI	6/23/2005	Miscellaneous	Estimated Un-ionized Ammonia	3384 J	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-118WT	IDW, RDW	6/23/2005	Inorganics-Filtered	Iron	92400	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-118WT	RDW	6/23/2005	Inorganics-Filtered	Magnesium	444000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-118WT	GSI	6/23/2005	Inorganics-Filtered	Selenium	16.3	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-118WT	IDW, RDW	6/23/2005	Inorganics-Filtered	Sodium	541000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-118WT	GSI, IDW, RDW	6/23/2005	Miscellaneous	TDS	12000000 J	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-118WT	IDW, RDW	12/14/2006	Miscellaneous	Ammonia Nitrogen	42000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-118WT	GSI	12/14/2006	Inorganics-Filtered	Barium	1400	Monitoring well is not located within the groundwater surface water interface.

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Green Point Landfill	MW-118WT	IDW, RDW	12/14/2006	Miscellaneous	Chloride	2370000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-118WT	GSI	12/14/2006	Miscellaneous	Estimated Un-ionized Ammonia	3024	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-118WT	IDW, RDW	12/14/2006	Inorganics-Filtered	Iron	39200	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-118WT	IDW, RDW	12/14/2006	Miscellaneous	Nitrite (as N)	1900	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-118WT	IDW, RDW	12/14/2006	Inorganics-Filtered	Sodium	408000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-118WT	GSI, IDW, RDW	12/14/2006	Miscellaneous	TDS	6800000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-118WT	IDW, RDW	12/7/2007	Miscellaneous	Ammonia Nitrogen	42000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-118WT	IDW, RDW	12/7/2007	Miscellaneous	Chloride	1760000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-118WT	GSI	12/7/2007	Miscellaneous	Estimated Un-ionized Ammonia	3024	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-118WT	IDW, RDW	12/7/2007	Inorganics-Filtered	Iron	35400	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-118WT	IDW, RDW	12/7/2007	Inorganics-Filtered	Sodium	406000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-118WT	GSI, IDW, RDW	12/7/2007	Miscellaneous	TDS	4600000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-118WT	IDW, RDW	4/1/2008	Miscellaneous	Ammonia Nitrogen	38000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-118WT	IDW, RDW	4/1/2008	Miscellaneous	Chloride	1800000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-118WT	GSI	4/1/2008	Miscellaneous	Estimated Un-ionized Ammonia	2736	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-118WT	IDW, RDW	4/1/2008	Inorganics-Filtered	Iron	30500	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-118WT	RDW	4/1/2008	Inorganics-Filtered	Sodium	334000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-118WT	GSI, IDW, RDW	4/1/2008	Miscellaneous	TDS	4600000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-119WT	IDW, RDW	7/17/1995	Inorganics-Filtered	Iron	13,700	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-119WT	GSI	7/17/1995	PCBs	Total Aroclors	0.41	Monitoring well is not located within the groundwater surface water interface.

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Green Point Landfill	MW-119WT	IDW, RDW	6/10/1996	Inorganics-Filtered	Iron	14,700 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-119WT	IDW, RDW	6/10/1996	Inorganics-Filtered	Iron	14,600 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-128S1	GSI	7/26/1995	Inorganics	Cyanide, Total	8.3	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-128S1	IDW, RDW	7/26/1995	Inorganics-Filtered	Aluminum	502	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-128S1	IDW, RDW	7/26/1995	Inorganics-Filtered	Iron	31,900	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-128S1	IDW, RDW	3/12/1997	Inorganics	Iron	25,600	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-128S1	IDW, RDW	3/12/1997	Inorganics-Filtered	Iron	27,600	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-128S1	IDW, RDW	5/19/2000	Inorganics	Iron	22,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-128S1	GSI, IDW, RDW	5/19/2000	Inorganics-Filtered	Thallium	6.2 B	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-128S1	IDW, RDW	5/19/2000	Inorganics-Filtered	Iron	22,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-128S1	GSI	5/19/2000	Miscellaneous	Nitrogen, Ammonia	3,300	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-128S1	GSI, IDW, RDW	5/19/2000	Miscellaneous	Chloride	1,320,000 J	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-128S1	GSI, IDW, RDW	6/20/2001	Inorganics-Filtered	Thallium	6.1 B	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-128S1	IDW, RDW	6/20/2001	Inorganics-Filtered	Iron	20,400	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-128S1	GSI	6/20/2001	Miscellaneous	Nitrogen, Ammonia	7,400	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-128S1	GSI, IDW, RDW	6/20/2001	Miscellaneous	Chloride	1,230,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-128S1	GSI, IDW, RDW	6/26/2002	Inorganics-Filtered	Thallium	6.5 B J	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-128S1	IDW, RDW	6/26/2002	Inorganics-Filtered	Iron	22,900	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-128S1	GSI	6/26/2002	Miscellaneous	Nitrogen, Ammonia	7,200	Monitoring well is not located within the groundwater surface water interface.

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Green Point Landfill	MW-128S1	GSI, IDW, RDW	6/26/2002	Miscellaneous	Chloride	1,460,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-128S1	GSI	6/18/2003	Miscellaneous	Nitrogen, Ammonia	6,900	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-128S1	GSI, IDW, RDW	6/18/2003	Miscellaneous	Chloride	1,090,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-128S1	GSI	5/25/2004	Miscellaneous	Nitrogen, Ammonia	6,400	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-128S1	GSI, IDW, RDW	5/25/2004	Miscellaneous	Chloride	1,220,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-128S1	IDW, RDW	6/22/2005	Inorganics-Filtered	Arsenic	14.2	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-128S1	IDW, RDW	6/22/2005	Miscellaneous	Chloride	1230000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-128S1	GSI	6/22/2005	Miscellaneous	Estimated Un-ionized Ammonia	403.2 [410.4]	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-128S1	GSI, IDW, RDW	6/22/2005	Inorganics-Filtered	Selenium	39.1 [52.3]	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-128S1	IDW, RDW	6/22/2005	Inorganics-Filtered	Sodium	398000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-128S1	GSI, IDW, RDW	6/22/2005	Miscellaneous	TDS	2800000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-128S1	IDW, RDW	12/12/2006	Miscellaneous	Chloride	1250000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-128S1	GSI	12/12/2006	Miscellaneous	Estimated Un-ionized Ammonia	360	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-128S1	IDW, RDW	12/12/2006	Inorganics-Filtered	Sodium	423000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-128S1	GSI, IDW, RDW	12/12/2006	Miscellaneous	TDS	3700000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-128S1	IDW, RDW	12/5/2007	Inorganics-Filtered	Arsenic	11.1	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-128S1	IDW, RDW	12/5/2007	Miscellaneous	Chloride	1300000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-128S1	GSI	12/5/2007	Miscellaneous	Estimated Un-ionized Ammonia	237.6	Monitoring well is not located within the groundwater surface water interface.

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Green Point Landfill	MW-128S1	IDW, RDW	12/5/2007	Inorganics-Filtered	Sodium	456000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-128S1	GSI, IDW, RDW	12/5/2007	Miscellaneous	TDS	2500000 J	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-128S1	IDW, RDW	3/12/2008	Miscellaneous	Chloride	1170000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-128S1	GSI	3/12/2008	Miscellaneous	Estimated Un-ionized Ammonia	280.8	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-128S1	IDW, RDW	3/12/2008	Inorganics-Filtered	Sodium	426000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-128S1	GSI, IDW, RDW	3/12/2008	Miscellaneous	TDS	2400000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-128WT	GSI	7/26/1995	Inorganics	Cyanide, Total	8.8	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-128WT	IDW, RDW	7/26/1995	Inorganics-Filtered	Aluminum	448	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-128WT	IDW, RDW	7/26/1995	Inorganics-Filtered	Iron	24,500	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-128WT	IDW, RDW	3/12/1997	Inorganics	Iron	26,300	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-128WT	IDW, RDW	3/12/1997	Inorganics-Filtered	Iron	30,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-128WT	IDW, RDW	5/19/2000	Inorganics	Iron	21,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-128WT	GSI, IDW, RDW	5/19/2000	Inorganics-Filtered	Thallium	6.9 B	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-128WT	IDW, RDW	5/19/2000	Inorganics-Filtered	Iron	20,100	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-128WT	IDW, RDW	5/19/2000	Inorganics-Filtered	Manganese	2,170	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-128WT	GSI, IDW, RDW	5/19/2000	Miscellaneous	Chloride	775,000 J	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-128WT	GSI, IDW, RDW	5/19/2000	Miscellaneous	Nitrogen, Ammonia	13,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-128WT	IDW, RDW	6/20/2001	Inorganics-Filtered	Iron	19,400	Restrictive Covenant prevents use of the groundwater as a drinking water source.

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Green Point Landfill	MW-128WT	GSI, IDW, RDW	6/20/2001	Miscellaneous	Chloride	995,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-128WT	GSI, IDW, RDW	6/20/2001	Miscellaneous	Nitrogen, Ammonia	66,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-128WT	IDW, RDW	6/26/2002	Inorganics-Filtered	Iron	14,900	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-128WT	GSI, IDW, RDW	6/26/2002	Miscellaneous	Chloride	1,280,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-128WT	GSI, IDW, RDW	6/26/2002	Miscellaneous	Nitrogen, Ammonia	97,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-128WT	IDW, RDW	6/18/2003	Inorganics-Filtered	Iron	16,700	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-128WT	GSI, IDW, RDW	6/18/2003	Miscellaneous	Chloride	1,000,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-128WT	GSI, IDW, RDW	6/18/2003	Miscellaneous	Nitrogen, Ammonia	100,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-128WT	GSI, IDW, RDW	5/25/2004	Miscellaneous	Chloride	905,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-128WT	GSI, IDW, RDW	5/25/2004	Miscellaneous	Nitrogen, Ammonia	110,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-128WT	IDW, RDW	6/22/2005	Miscellaneous	Ammonia Nitrogen	120000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-128WT	IDW, RDW	6/22/2005	Inorganics-Filtered	Arsenic	16.4	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-128WT	IDW, RDW	6/22/2005	Miscellaneous	Chloride	1170000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-128WT	GSI	6/22/2005	Miscellaneous	Estimated Un-ionized Ammonia	8640	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-128WT	GSI	6/22/2005	Inorganics-Filtered	Selenium	47.2	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-128WT	IDW, RDW	6/22/2005	Inorganics-Filtered	Sodium	654000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-128WT	GSI, IDW, RDW	6/22/2005	Miscellaneous	TDS	2600000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.

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SUMMARY OF SITE GROUNDWATER DATA THAT EXCEEDS GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Green Point Landfill	MW-128WT	IDW, RDW	12/13/2006	Miscellaneous	Ammonia Nitrogen	110000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-128WT	IDW, RDW	12/13/2006	Miscellaneous	Chloride	704000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-128WT	GSI	12/13/2006	Miscellaneous	Estimated Un-ionized Ammonia	7920	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-128WT	IDW, RDW	12/13/2006	Inorganics-Filtered	Sodium	358000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-128WT	GSI, IDW, RDW	12/13/2006	Miscellaneous	TDS	1400000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-128WT	IDW, RDW	12/5/2007	Miscellaneous	Ammonia Nitrogen	130000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-128WT	IDW, RDW	12/5/2007	Miscellaneous	Chloride	1140000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-128WT	GSI	12/5/2007	Miscellaneous	Estimated Un-ionized Ammonia	9360	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-128WT	IDW, RDW	12/5/2007	Inorganics-Filtered	Sodium	583000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-128WT	GSI, IDW, RDW	12/5/2007	Miscellaneous	TDS	2400000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-128WT	IDW, RDW	3/12/2008	Miscellaneous	Ammonia Nitrogen	70000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-128WT	IDW, RDW	3/12/2008	Miscellaneous	Chloride	517000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-128WT	GSI	3/12/2008	Miscellaneous	Estimated Un-ionized Ammonia	5040	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	MW-128WT	RDW	3/12/2008	Inorganics-Filtered	Sodium	210000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-128WT	GSI, IDW, RDW	3/12/2008	Miscellaneous	TDS	1300000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-129WT	IDW, RDW	9/17/2004	Inorganics	Arsenic	39 [28]	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-129WT	IDW, RDW	9/17/2004	Inorganics-Filtered	Arsenic	37	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-129WT	IDW, RDW	9/17/2004	Semivolatiles	bis(2-Ethylhexyl)phthalate	6.7	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-129WT	IDW, RDW	9/17/2004	Inorganics	Iron	21500 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	MW-129WT	IDW, RDW	9/17/2004	Inorganics	Iron	21400 J [21400 J]	Restrictive Covenant prevents use of the groundwater as a drinking water source.

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Green Point Landfill	MW-129WT	GSI, IDW, RDW	6/3/2008	Miscellaneous	TDS	1000000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	MW-1A	GSI	7/17/1995	Inorganics-Filtered	Antimony	5.2	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	TW-216S2	GSI	5/11/1995	Inorganics-Filtered	Zinc	844	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	TW-216S2	GSI	5/11/1995	Inorganics-Filtered	Zinc	877	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	TW-216WT	GSI	5/10/1995	Inorganics-Filtered	Antimony	5.3	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	TW-217S1	GSI	5/10/1995	Inorganics-Filtered	Zinc	1,010	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	TW-217S2	GSI	5/10/1995	Inorganics-Filtered	Zinc	866	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	TW-218S1	GSI	5/9/1995	Inorganics-Filtered	Zinc	1,730	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	TW-218S1	GSI, IDW, RDW	5/9/1995	Semivolatiles	bis(2-Ethylhexyl)phthalate	41	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	TW-218S2	GSI	5/9/1995	Inorganics-Filtered	Zinc	781	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	TW-218S3	GSI	5/9/1995	Inorganics-Filtered	Zinc	313	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	TW-218S3	IDW, RDW	5/9/1995	Semivolatiles	bis(2-Ethylhexyl)phthalate	6.5	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	TW-218WT	GSI	5/9/1995	Inorganics-Filtered	Zinc	409	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	TW-218WT	IDW, RDW	5/9/1995	Inorganics-Filtered	Aluminum	254	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	TW-218WT	IDW, RDW	5/9/1995	Inorganics-Filtered	Manganese	2,180	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	TW-219S1	GSI	1/27/1995	Inorganics-Filtered	Zinc	978	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	TW-219S2	GSI	1/27/1995	Inorganics-Filtered	Zinc	1,060	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	TW-219WT	GSI	1/26/1995	Inorganics-Filtered	Zinc	492	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	TW-220S1	GSI	1/30/1995	Inorganics-Filtered	Zinc	1,020	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	TW-220S1	GSI, IDW, RDW	1/30/1995	Inorganics-Filtered	Cadmium	7.6	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.

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SUMMARY OF SITE GROUNDWATER DATA THAT EXCEEDS GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Green Point Landfill	TW-220S1	IDW, RDW	1/30/1995	Inorganics-Filtered	Aluminum	271	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	TW-220S2	GSI	1/30/1995	Inorganics-Filtered	Zinc	596	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	TW-220S3	IDW, RDW	2/1/1995	Inorganics-Filtered	Iron	13,600	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	TW-220WT	GSI	1/30/1995	Inorganics-Filtered	Zinc	709	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	TW-220WT	IDW, RDW	1/30/1995	Semivolatiles	bis(2-Ethylhexyl)phthalate	12	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	TW-221S1	GSI	1/31/1995	Inorganics-Filtered	Zinc	830	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	TW-221S2	GSI	1/31/1995	Inorganics-Filtered	Zinc	461	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	TW-221S2	GSI	1/31/1995	Inorganics-Filtered	Zinc	395	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	TW-221S3	GSI	2/1/1995	Inorganics	Cyanide, Total	5.3	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	TW-221S4	GSI	2/1/1995	Inorganics-Filtered	Zinc	327	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	TW-221S4	IDW, RDW	2/1/1995	Inorganics-Filtered	Iron	13,500	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	TW-221WT	GSI	1/30/1995	Inorganics-Filtered	Zinc	516	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	TW-222WT	GSI	1/31/1995	Inorganics-Filtered	Zinc	420	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	TW-223S1	GSI	2/1/1995	Inorganics-Filtered	Zinc	320	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	TW-223S1	IDW, RDW	2/1/1995	Inorganics-Filtered	Aluminum	311	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	TW-223S2	GSI	2/1/1995	Inorganics-Filtered	Zinc	711	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	TW-223WT	GSI	2/1/1995	Inorganics-Filtered	Zinc	402	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	TW-223WT	GSI	2/1/1995	PCBs-Filtered	Total Aroclors	0.28	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	TW-224S1	GSI	2/2/1995	Inorganics-Filtered	Zinc	1,300	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	TW-225S1	GSI	2/3/1995	Inorganics-Filtered	Zinc	1,270	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	TW-226S1	IDW, RDW	2/2/1995	Semivolatiles	bis(2-Ethylhexyl)phthalate	17	Restrictive Covenant prevents use of the groundwater as a drinking water source.

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GENERAL MOTORS CORPORATION
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SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Green Point Landfill	X-10A	IDW, RDW	5/24/2000	BIO	Sulfate	430,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-10A	GSI, IDW, RDW	5/24/2000	Inorganics-Filtered	Thallium	7.1B	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-10A	GSI	5/24/2000	Miscellaneous	Chloride	58,700	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-10AR2	IDW, RDW	11/27/2001	BIO	Sulfate	638,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-10AR2	IDW, RDW	11/27/2001	Inorganics-Filtered	Manganese	2,810	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-10AR2	IDW, RDW	11/27/2001	Inorganics-Filtered	Manganese	2,710	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-10AR2	GSI	11/27/2001	Miscellaneous	Chloride	47,100	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-10AR2	GSI	11/27/2001	Miscellaneous	Nitrogen, Ammonia	1,700	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-10AR2	IDW, RDW	6/26/2002	BIO	Sulfate	492,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-10AR2	GSI, IDW, RDW	6/26/2002	Inorganics-Filtered	Thallium	5.8 B J	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-10AR2	IDW, RDW	6/26/2002	Inorganics-Filtered	Iron	15,600	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-10AR2	IDW, RDW	6/26/2002	Inorganics-Filtered	Manganese	2,630	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-10AR2	GSI	6/26/2002	Miscellaneous	Chloride	20,900	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-10AR2	GSI	6/26/2002	Miscellaneous	Nitrogen, Ammonia	1,100	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-10AR2	IDW, RDW	6/19/2003	BIO	Sulfate	398,000 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-10AR2	IDW, RDW	6/19/2003	Inorganics-Filtered	Iron	13,500	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-10AR2	IDW, RDW	6/19/2003	Inorganics-Filtered	Manganese	2,470	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-10AR2	GSI	6/19/2003	Miscellaneous	Chloride	19,700	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-10AR2	GSI	6/19/2003	Miscellaneous	Nitrogen, Ammonia	1,000	Monitoring well is not located within the groundwater surface water interface.

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Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Green Point Landfill	X-10AR2	IDW, RDW	5/25/2004	BIO	Sulfate	279,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-10AR2	IDW, RDW	5/25/2004	Inorganics-Filtered	Manganese	2,170	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-10AR2	GSI	5/25/2004	Miscellaneous	Chloride	5,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-10AR2	GSI	5/25/2004	Miscellaneous	Nitrogen, Ammonia	400	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-10AR2	GSI, IDW, RDW	6/22/2005	Miscellaneous	TDS	690000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-10AR2	IDW, RDW	12/13/2006	Inorganics-Filtered	Manganese	2700	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-10AR2	IDW, RDW	12/13/2006	Inorganics-Filtered	Manganese	2630	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-10AR2	GSI, IDW, RDW	12/13/2006	Miscellaneous	TDS	750000 [740000]	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-10AR2	GSI, IDW, RDW	12/3/2007	Miscellaneous	TDS	730000 [720000]	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-10AR2	GSI, IDW, RDW	4/2/2008	Miscellaneous	TDS	530000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-10BR	IDW, RDW	7/24/1995	Inorganics-Filtered	Iron	22,600	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-10BR	IDW, RDW	12/15/2006	Inorganics-Filtered	Arsenic	27.6	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-10BR	IDW, RDW	12/15/2006	Miscellaneous	Chloride	505000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-10BR	GSI	12/15/2006	Miscellaneous	Estimated Un-ionized Ammonia	432	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-10BR	IDW, RDW	12/15/2006	Inorganics-Filtered	Iron	30500	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-10BR	RDW	12/15/2006	Inorganics-Filtered	Sodium	192000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-10BR	GSI, IDW, RDW	12/15/2006	Miscellaneous	TDS	1600000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-10BR	IDW, RDW	12/4/2007	Inorganics-Filtered	Arsenic	29.5	Restrictive Covenant prevents use of the groundwater as a drinking water source.

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SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Green Point Landfill	X-10BR	IDW, RDW	12/4/2007	Miscellaneous	Chloride	497000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-10BR	GSI	12/4/2007	Miscellaneous	Estimated Un-ionized Ammonia	324	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-10BR	IDW, RDW	12/4/2007	Inorganics-Filtered	Iron	32700	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-10BR	RDW	12/4/2007	Inorganics-Filtered	Sodium	198000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-10BR	GSI, IDW, RDW	12/4/2007	Miscellaneous	TDS	1400000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-10BR	IDW, RDW	3/12/2008	Inorganics-Filtered	Arsenic	33	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-10BR	IDW, RDW	3/12/2008	Miscellaneous	Chloride	502000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-10BR	GSI	3/12/2008	Miscellaneous	Estimated Un-ionized Ammonia	288	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-10BR	IDW, RDW	3/12/2008	Inorganics-Filtered	Iron	31800	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-10BR	RDW	3/12/2008	Inorganics-Filtered	Sodium	186000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-10BR	GSI, IDW, RDW	3/12/2008	Miscellaneous	TDS	1400000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-10CR	IDW, RDW	7/24/1995	Inorganics-Filtered	Iron	19,300	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-10CR	IDW, RDW	12/13/2006	Miscellaneous	Ammonia Nitrogen	21000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-10CR	IDW, RDW	12/13/2006	Inorganics-Filtered	Arsenic	27.8	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-10CR	IDW, RDW	12/13/2006	Miscellaneous	Chloride	864000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-10CR	GSI	12/13/2006	Miscellaneous	Estimated Un-ionized Ammonia	1512	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-10CR	IDW, RDW	12/13/2006	Inorganics-Filtered	Iron	19700	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-10CR	IDW, RDW	12/13/2006	Inorganics-Filtered	Sodium	363000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-10CR	GSI, IDW, RDW	12/13/2006	Miscellaneous	TDS	2400000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-10CR	IDW, RDW	12/4/2007	Miscellaneous	Sulfate	311000	Restrictive Covenant prevents use of the groundwater as a drinking water source.

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TABLE 2-3
SUMMARY OF SITE GROUNDWATER DATA THAT EXCEEDS GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Green Point Landfill	X-10CR	GSI, IDW, RDW	12/4/2007	Miscellaneous	TDS	710000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-10CR	RDW	12/4/2007	Inorganics-Filtered	Vanadium	7.6	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-10CR	IDW, RDW	3/12/2008	Miscellaneous	Ammonia Nitrogen	22000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-10CR	IDW, RDW	3/12/2008	Inorganics-Filtered	Arsenic	28.3	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-10CR	IDW, RDW	3/12/2008	Miscellaneous	Chloride	912000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-10CR	GSI	3/12/2008	Miscellaneous	Estimated Un-ionized Ammonia	1584	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-10CR	IDW, RDW	3/12/2008	Inorganics-Filtered	Iron	18300	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-10CR	RDW	3/12/2008	Inorganics-Filtered	Sodium	325000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-10CR	GSI, IDW, RDW	3/12/2008	Miscellaneous	TDS	2100000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-10DAUG	IDW, RDW	7/24/1995	Inorganics-Filtered	Iron	28,400	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-10DAUG	IDW, RDW	12/14/2006	Inorganics-Filtered	Arsenic	19.8 [19.9]	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-10DAUG	IDW, RDW	12/14/2006	Miscellaneous	Chloride	505000 [508000]	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-10DAUG	GSI	12/14/2006	Miscellaneous	Estimated Un-ionized Ammonia	309.6 [324]	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-10DAUG	IDW, RDW	12/14/2006	Inorganics-Filtered	Iron	29000 [29700]	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-10DAUG	RDW	12/14/2006	Inorganics-Filtered	Sodium	196000 [200000]	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-10DAUG	GSI, IDW, RDW	12/14/2006	Miscellaneous	TDS	1500000 [1700000]	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-10DAUG	IDW, RDW	12/4/2007	Inorganics-Filtered	Arsenic	22.6	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-10DAUG	IDW, RDW	12/4/2007	Miscellaneous	Chloride	530000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-10DAUG	GSI	12/4/2007	Miscellaneous	Estimated Un-ionized Ammonia	223.2	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-10DAUG	IDW, RDW	12/4/2007	Inorganics-Filtered	Iron	34200	Restrictive Covenant prevents use of the groundwater as a drinking water source.

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Green Point Landfill	X-10DAUG	RDW	12/4/2007	Inorganics-Filtered	Sodium	212000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-10DAUG	GSI, IDW, RDW	12/4/2007	Miscellaneous	TDS	1500000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-10DAUG	IDW, RDW	3/12/2008	Inorganics-Filtered	Arsenic	18.1	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-10DAUG	IDW, RDW	3/12/2008	Miscellaneous	Chloride	542000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-10DAUG	GSI	3/12/2008	Miscellaneous	Estimated Un-ionized Ammonia	302.4	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-10DAUG	IDW, RDW	3/12/2008	Inorganics-Filtered	Iron	28700	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-10DAUG	RDW	3/12/2008	Inorganics-Filtered	Sodium	183000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-10DAUG	GSI, IDW, RDW	3/12/2008	Miscellaneous	TDS	1500000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-13AR	GSI, IDW, RDW	7/18/1995	Semivolatiles	bis(2-Ethylhexyl)phthalate	76 B	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-14B	IDW, RDW	7/18/1995	Inorganics-Filtered	Iron	13,400	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-14CAUG	GSI	7/18/1995	Semivolatiles	Butyl benzyl phthalate	24	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-14CAUG	IDW, RDW	6/4/1996	Semivolatiles	bis(2-Ethylhexyl)phthalate	6.8 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-16A	IDW, RDW	7/27/1995	Inorganics-Filtered	Aluminum	1,110	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-16A	IDW, RDW	5/24/2000	BIO	Sulfate	601,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-16A	GSI, IDW, RDW	5/24/2000	Inorganics-Filtered	Thallium	7.6B	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-16A	GSI, IDW, RDW	5/24/2000	Miscellaneous	Chloride	420,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-16A	GSI	5/24/2000	Miscellaneous	Nitrogen, Ammonia	400	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-16A	IDW, RDW	5/24/2000	Volatiles	Vinyl chloride	5.8	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-16A	IDW, RDW	6/19/2001	BIO	Sulfate	602,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Green Point Landfill	X-16A	GSI	6/19/2001	Inorganics-Filtered	Cyanide, Total	5.8	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-16A	GSI, IDW, RDW	6/19/2001	Inorganics-Filtered	Thallium	6.6B	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-16A	GSI, IDW, RDW	6/19/2001	Miscellaneous	Chloride	428,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-16A	GSI	6/19/2001	Miscellaneous	Nitrogen, Ammonia	800	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-16A	IDW, RDW	6/19/2001	Volatiles	Vinyl chloride	4.3	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-16A	IDW, RDW	6/25/2002	BIO	Sulfate	568,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-16A	GSI, IDW, RDW	6/25/2002	Inorganics-Filtered	Thallium	5.6BJ	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-16A	GSI, IDW, RDW	6/25/2002	Miscellaneous	Chloride	462,000J	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-16A	GSI	6/25/2002	Miscellaneous	Nitrogen, Ammonia	700	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-16A	IDW, RDW	6/25/2002	Volatiles	Vinyl chloride	4.4	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-16A	GSI	6/17/2003	Miscellaneous	Nitrogen, Ammonia	700	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-16A	IDW, RDW	6/17/2003	Volatiles	Vinyl chloride	4.2	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-16A	IDW, RDW	6/18/2003	BIO	Sulfate	526,000J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-16A	GSI, IDW, RDW	6/18/2003	Miscellaneous	Chloride	530,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-16A	IDW, RDW	5/26/2004	BIO	Sulfate	528,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-16A	IDW, RDW	5/26/2004	BIO	Sulfate	528,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-16A	GSI, IDW, RDW	5/26/2004	Miscellaneous	Chloride	519,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-16A	GSI	5/26/2004	Miscellaneous	Nitrogen, Ammonia	500	Monitoring well is not located within the groundwater surface water interface.

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GENERAL MOTORS CORPORATION
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SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Green Point Landfill	X-16A	GSI, IDW, RDW	5/26/2004	Miscellaneous	Chloride	516,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-16A	GSI	5/26/2004	Miscellaneous	Nitrogen, Ammonia	400	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-16A	IDW, RDW	5/26/2004	Volatiles	Vinyl chloride	6.3	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-16A	IDW, RDW	5/26/2004	Volatiles	Vinyl chloride	6.4	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-16A	IDW, RDW	6/21/2005	Miscellaneous	Chloride	536000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-16A	GSI	6/21/2005	Inorganics-Filtered	Selenium	5.9	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-16A	RDW	6/21/2005	Inorganics-Filtered	Sodium	131000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-16A	IDW, RDW	6/21/2005	Miscellaneous	Sulfate	487000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-16A	GSI, IDW, RDW	6/21/2005	Miscellaneous	TDS	2200000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-16A	IDW, RDW	6/21/2005	Volatiles	Vinyl Chloride	5.1	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-16A	IDW, RDW	12/12/2006	Miscellaneous	Chloride	514000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-16A	GSI	12/12/2006	Inorganics-Filtered	Cyanide	5.3 J	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-16A	RDW	12/12/2006	Inorganics-Filtered	Sodium	138000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-16A	IDW, RDW	12/12/2006	Miscellaneous	Sulfate	423000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-16A	GSI, IDW, RDW	12/12/2006	Miscellaneous	TDS	2700000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-16A	IDW, RDW	12/12/2006	Volatiles	Vinyl Chloride	7	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-16A	IDW, RDW	12/5/2007	Miscellaneous	Chloride	545000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-16A	IDW, RDW	12/5/2007	Miscellaneous	Sulfate	427000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-16A	GSI, IDW, RDW	12/5/2007	Miscellaneous	TDS	2000000 J	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Green Point Landfill	X-16A	IDW, RDW	12/6/2007	Inorganics-Filtered	Sodium	152000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-16A	IDW, RDW	4/2/2008	Miscellaneous	Chloride	556000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-16A	IDW, RDW	4/2/2008	Miscellaneous	Sulfate	466000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-16A	GSI, IDW, RDW	4/2/2008	Miscellaneous	TDS	1900000 J	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-16B	GSI, IDW, RDW	5/19/2000	Inorganics-Filtered	Thallium	3.9B	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-16B	GSI	5/19/2000	Miscellaneous	Chloride	90,600J	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-16B	GSI, IDW, RDW	6/20/2001	Miscellaneous	Chloride	265,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-16B	GSI, IDW, RDW	6/20/2001	Miscellaneous	Nitrogen, Ammonia	19,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-16B	GSI	6/27/2002	Miscellaneous	Chloride	56,200	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-16B	GSI	6/18/2003	Inorganics-Filtered	Mercury	0.13B	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-16B	GSI	6/18/2003	Miscellaneous	Chloride	61,500	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-16B	GSI	5/26/2004	Miscellaneous	Chloride	42,300	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-16B	GSI, IDW, RDW	6/21/2005	Miscellaneous	TDS	630000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-16B	GSI, IDW, RDW	12/12/2006	Miscellaneous	TDS	650000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-16B	GSI, IDW, RDW	12/3/2007	Miscellaneous	TDS	620000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-16B	GSI, IDW, RDW	4/1/2008	Miscellaneous	TDS	590000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-17R	IDW, RDW	6/4/1996	Semivolatiles	bis(2-Ethylhexyl)phthalate	7.5 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Green Point Landfill	X-17R	GSI, IDW, RDW	5/29/2008	Miscellaneous	TDS	2200000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-18R	GSI, IDW, RDW	5/29/2008	Miscellaneous	TDS	4100000 [4500000]	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-19AR	GSI, IDW, RDW	5/29/2008	Miscellaneous	TDS	890000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-1A	GSI, IDW, RDW	7/29/1995	PCBs	Total Aroclors	3	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-1A	IDW, RDW	7/29/1995	Volatiles	Benzene	9.5	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1A	IDW, RDW	6/10/1996	Inorganics	Iron	31,630	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1A	IDW, RDW	6/10/1996	Inorganics-Filtered	Iron	30,000J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1A	IDW, RDW	6/10/1996	Volatiles	Benzene	8.7J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1A	IDW, RDW	3/8/1997	Inorganics	Iron	20,990	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1A	IDW, RDW	3/8/1997	Inorganics-Filtered	Iron	19,420	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1A	IDW, RDW	5/23/2000	BIO	Sulfate	528,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1A	IDW, RDW	5/23/2000	Inorganics	Iron	18,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1A	IDW, RDW	5/23/2000	Inorganics-Filtered	Iron	18,500J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1A	GSI, IDW, RDW	5/23/2000	Miscellaneous	Chloride	505,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-1A	GSI, IDW, RDW	5/23/2000	Miscellaneous	Nitrogen, Ammonia	160,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-1A	IDW, RDW	5/23/2000	Volatiles	Benzene	8	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1A	IDW, RDW	6/20/2001	Inorganics-Filtered	Iron	16,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1A	GSI, IDW, RDW	6/20/2001	Inorganics-Filtered	Thallium	5.7B	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.

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SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Green Point Landfill	X-1A	GSI, IDW, RDW	6/20/2001	Miscellaneous	Chloride	893,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-1A	GSI, IDW, RDW	6/20/2001	Miscellaneous	Nitrogen, Ammonia	210,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-1A	IDW, RDW	6/20/2001	Volatiles	Benzene	9.3	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1A	IDW, RDW	6/25/2002	Inorganics-Filtered	Iron	14,200	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1A	GSI, IDW, RDW	6/25/2002	Inorganics-Filtered	Thallium	7.3BJ	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-1A	GSI, IDW, RDW	6/25/2002	Miscellaneous	Chloride	714,000J	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-1A	GSI, IDW, RDW	6/25/2002	Miscellaneous	Nitrogen, Ammonia	94,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-1A	IDW, RDW	6/25/2002	Volatiles	Benzene	6.2	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1A	GSI, IDW, RDW	6/17/2003	Miscellaneous	Nitrogen, Ammonia	74,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-1A	IDW, RDW	6/18/2003	Inorganics-Filtered	Iron	38,900	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1A	GSI, IDW, RDW	6/18/2003	Miscellaneous	Chloride	593,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-1A	IDW, RDW	5/25/2004	Inorganics-Filtered	Iron	19,200	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1A	GSI, IDW, RDW	5/25/2004	Miscellaneous	Chloride	473,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-1A	GSI, IDW, RDW	5/25/2004	Miscellaneous	Nitrogen, Ammonia	73,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-1A	IDW, RDW	5/25/2004	Volatiles	Benzene	5.4	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1A	IDW, RDW	6/21/2005	Miscellaneous	Ammonia Nitrogen	59000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1A	IDW, RDW	6/21/2005	Miscellaneous	Chloride	419000	Restrictive Covenant prevents use of the groundwater as a drinking water source.

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TABLE 2-3
SUMMARY OF SITE GROUNDWATER DATA THAT EXCEEDS GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Green Point Landfill	X-1A	GSI	6/21/2005	Miscellaneous	Estimated Un-ionized Ammonia	4248	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-1A	IDW, RDW	6/21/2005	Inorganics-Filtered	Iron	21400	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1A	GSI	6/21/2005	Inorganics-Filtered	Selenium	12.4	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-1A	RDW	6/21/2005	Inorganics-Filtered	Sodium	258000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1A	GSI, IDW, RDW	6/21/2005	Miscellaneous	TDS	1300000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-1A	IDW, RDW	12/12/2006	Miscellaneous	Ammonia Nitrogen	37000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1A	GSI	12/12/2006	Inorganics-Filtered	Cyanide	6 J	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-1A	GSI	12/12/2006	Miscellaneous	Estimated Un-ionized Ammonia	2664	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-1A	IDW, RDW	12/12/2006	Inorganics-Filtered	Iron	13500	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1A	RDW	12/12/2006	Inorganics-Filtered	Sodium	180000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1A	GSI, IDW, RDW	12/12/2006	Miscellaneous	TDS	890000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-1A	IDW, RDW	12/7/2007	Miscellaneous	Ammonia Nitrogen	33000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1A	GSI	12/7/2007	Miscellaneous	Estimated Un-ionized Ammonia	2376	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-1A	IDW, RDW	12/7/2007	Inorganics-Filtered	Iron	16000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1A	RDW	12/7/2007	Inorganics-Filtered	Sodium	197000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1A	GSI, IDW, RDW	12/7/2007	Miscellaneous	TDS	900000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-1A	IDW, RDW	3/12/2008	Miscellaneous	Ammonia Nitrogen	27000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1A	GSI	3/12/2008	Miscellaneous	Estimated Un-ionized Ammonia	1944	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-1A	IDW, RDW	3/12/2008	Inorganics-Filtered	Iron	16900	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1A	RDW	3/12/2008	Inorganics-Filtered	Sodium	136000	Restrictive Covenant prevents use of the groundwater as a drinking water source.

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Green Point Landfill	X-1A	GSI, IDW, RDW	3/12/2008	Miscellaneous	TDS	750000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-1B	GSI	7/29/1995	Inorganics	Cyanide, Total	9.1	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-1B	IDW, RDW	7/29/1995	Inorganics-Filtered	Iron	22,900	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1B	GSI, IDW, RDW	7/29/1995	PCBs	Total Aroclors	0.57	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-1B	IDW, RDW	6/10/1996	Inorganics	Iron	37,680	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1B	IDW, RDW	6/10/1996	Inorganics-Filtered	Iron	21,200J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1B	GSI	6/10/1996	PCBs	Total Aroclors	0.21	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-1B	IDW, RDW	3/9/1997	Inorganics	Iron	19,650	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1B	IDW, RDW	5/24/2000	Inorganics	Iron	21,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1B	GSI	5/24/2000	Inorganics-Filtered	Cyanide, Total	5.5	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-1B	IDW, RDW	5/24/2000	Inorganics-Filtered	Iron	22,100J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1B	GSI, IDW, RDW	5/24/2000	Inorganics-Filtered	Thallium	6.6B	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-1B	GSI, IDW, RDW	5/24/2000	Miscellaneous	Chloride	1,440,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-1B	GSI, IDW, RDW	5/24/2000	Miscellaneous	Nitrogen, Ammonia	24,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-1B	IDW, RDW	6/20/2001	Inorganics-Filtered	Iron	22,400	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1B	GSI, IDW, RDW	6/20/2001	Inorganics-Filtered	Thallium	6.4B	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-1B	GSI, IDW, RDW	6/20/2001	Miscellaneous	Chloride	1,280,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Green Point Landfill	X-1B	GSI, IDW, RDW	6/20/2001	Miscellaneous	Nitrogen, Ammonia	59,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-1B	IDW, RDW	6/25/2002	Inorganics-Filtered	Iron	20,300	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1B	GSI, IDW, RDW	6/25/2002	Inorganics-Filtered	Thallium	8.2BJ	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-1B	GSI, IDW, RDW	6/25/2002	Miscellaneous	Chloride	1,410,000J	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-1B	GSI, IDW, RDW	6/25/2002	Miscellaneous	Nitrogen, Ammonia	31,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-1B	GSI	6/17/2003	Miscellaneous	Nitrogen, Ammonia	7,000	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-1B	IDW, RDW	6/18/2003	Inorganics-Filtered	Iron	19,200	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1B	GSI, IDW, RDW	6/18/2003	Miscellaneous	Chloride	817,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-1B	IDW, RDW	5/25/2004	BIO	Sulfate	277,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1B	IDW, RDW	5/25/2004	Inorganics-Filtered	Iron	14,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1B	GSI, IDW, RDW	5/25/2004	Miscellaneous	Chloride	571,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-1B	GSI, IDW, RDW	5/25/2004	Miscellaneous	Nitrogen, Ammonia	22,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-1B	IDW, RDW	6/21/2005	Miscellaneous	Ammonia Nitrogen	46000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1B	IDW, RDW	6/21/2005	Miscellaneous	Chloride	1200000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1B	GSI	6/21/2005	Miscellaneous	Estimated Un-ionized Ammonia	3312	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-1B	IDW, RDW	6/21/2005	Inorganics-Filtered	Iron	21500	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1B	GSI	6/21/2005	Inorganics-Filtered	Selenium	19.5	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-1B	IDW, RDW	6/21/2005	Inorganics-Filtered	Sodium	678000	Restrictive Covenant prevents use of the groundwater as a drinking water source.

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GENERAL MOTORS CORPORATION
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SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Green Point Landfill	X-1B	GSI, IDW, RDW	6/21/2005	Miscellaneous	TDS	2900000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-1B	IDW, RDW	12/12/2006	Miscellaneous	Chloride	1100000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1B	GSI	12/12/2006	Inorganics-Filtered	Cyanide	18	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-1B	GSI	12/12/2006	Miscellaneous	Estimated Un-ionized Ammonia	180	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-1B	IDW, RDW	12/12/2006	Inorganics-Filtered	Iron	21700	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1B	IDW, RDW	12/12/2006	Inorganics-Filtered	Sodium	716000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1B	GSI, IDW, RDW	12/12/2006	Miscellaneous	TDS	3500000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-1B	IDW, RDW	12/6/2007	Miscellaneous	Ammonia Nitrogen	22000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1B	IDW, RDW	12/6/2007	Miscellaneous	Chloride	984000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1B	GSI	12/6/2007	Miscellaneous	Estimated Un-ionized Ammonia	1584	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-1B	IDW, RDW	12/6/2007	Inorganics-Filtered	Sodium	459000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1B	GSI, IDW, RDW	12/6/2007	Miscellaneous	TDS	2600000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-1B	GSI	12/6/2007	Inorganics-Filtered	Zinc	614	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-1B	IDW, RDW	3/12/2008	Miscellaneous	Ammonia Nitrogen	42000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1B	IDW, RDW	3/12/2008	Miscellaneous	Chloride	1050000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1B	GSI	3/12/2008	Miscellaneous	Estimated Un-ionized Ammonia	3024	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-1B	IDW, RDW	3/12/2008	Inorganics-Filtered	Iron	22300	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1B	IDW, RDW	3/12/2008	Inorganics-Filtered	Sodium	750000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1B	GSI, IDW, RDW	3/12/2008	Miscellaneous	TDS	3000000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.

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Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Green Point Landfill	X-1CR	GSI	7/29/1995	PCBs	Total Aroclors	0.31	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-1CR	IDW, RDW	7/29/1995	Volatiles	Benzene	10	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1CR	IDW, RDW	6/10/1996	Inorganics-Filtered	Iron	30,700 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1CR	GSI	6/10/1996	PCBs	Total Aroclors	0.4	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-1CR	IDW, RDW	6/10/1996	Volatiles	Benzene	9.3	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1CR	IDW, RDW	3/11/1997	Inorganics	Iron	43,300	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1CR	IDW, RDW	3/11/1997	Inorganics	Manganese	2,200	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1CR	IDW, RDW	3/11/1997	Inorganics-Filtered	Iron	42,800	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1CR	IDW, RDW	3/11/1997	Inorganics-Filtered	Manganese	2,200	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1CR	IDW, RDW	5/24/2000	BIO	Sulfate	540,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1CR	IDW, RDW	5/24/2000	Inorganics	Iron	31,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1CR	IDW, RDW	5/24/2000	Inorganics-Filtered	Iron	31,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1CR2	IDW, RDW	7/29/1995	Inorganics-Filtered	Lead	6.9	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1CR2	IDW, RDW	6/11/1996	BIO	Sulfate	282,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1CR2	IDW, RDW	6/11/1996	Inorganics	Iron	497,500	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1CR2	IDW, RDW	6/11/1996	Inorganics	Manganese	8,335	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1CR2	RDW	6/11/1996	Inorganics	Manganese	8,335	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1CR2	IDW	6/11/1996	Semivolatiles	bis(2-Ethylhexyl)phthalate	7 J	Industrial drinking water is not a complete exposure pathway.
Green Point Landfill	X-1CR2	RDW	6/11/1996	Semivolatiles	bis(2-Ethylhexyl)phthalate	7 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1CR2	IDW, RDW	3/12/1997	BIO	Sulfate	300,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1CR2	IDW, RDW	5/24/2000	Inorganics	Iron	32,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.

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SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Green Point Landfill	X-1CR2	IDW, RDW	6/26/2002	BIO	Sulfate	251,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1CR2	GSI	6/26/2002	Miscellaneous	Chloride	162,000	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-1CR2	GSI	6/26/2002	Miscellaneous	Nitrogen, Ammonia	600	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-1CR2	IDW, RDW	6/19/2003	BIO	Sulfate	260,000 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1CR2	GSI	6/19/2003	Inorganics-Filtered	Copper	112	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-1CR2	GSI	6/19/2003	Inorganics-Filtered	Zinc	534	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-1CR2	GSI, IDW, RDW	6/19/2003	Inorganics-Filtered	Chromium (Total)	180	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-1CR2	GSI, IDW, RDW	6/19/2003	Inorganics-Filtered	Lead	57.9	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-1CR2	GSI, IDW, RDW	6/19/2003	Inorganics-Filtered	Nickel	131	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-1CR2	GSI, IDW, RDW	6/19/2003	Inorganics-Filtered	Vanadium	169	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-1CR2	IDW, RDW	6/19/2003	Inorganics-Filtered	Aluminum	84,400	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1CR2	IDW, RDW	6/19/2003	Inorganics-Filtered	Iron	98,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1CR2	RDW	6/19/2003	Inorganics-Filtered	Cobalt	50.7	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1CR2	GSI	6/19/2003	Miscellaneous	Chloride	163,000	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-1CR2	GSI	6/19/2003	Miscellaneous	Nitrogen, Ammonia	400	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-1CR2	IDW, RDW	5/27/2004	BIO	Sulfate	260,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1CR2	GSI	5/27/2004	Miscellaneous	Chloride	170,000	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-1CR2	GSI	5/27/2004	Miscellaneous	Nitrogen, Ammonia	100 B	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-1CR2	RDW	6/21/2005	Inorganics-Filtered	Sodium	131000	Restrictive Covenant prevents use of the groundwater as a drinking water source.

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TABLE 2-3
SUMMARY OF SITE GROUNDWATER DATA THAT EXCEEDS GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Green Point Landfill	X-1CR2	GSI, IDW, RDW	6/21/2005	Miscellaneous	TDS	780000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-1CR2	RDW	12/12/2006	Inorganics-Filtered	Sodium	129000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1CR2	GSI, IDW, RDW	12/12/2006	Miscellaneous	TDS	760000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-1CR2	RDW	12/7/2007	Inorganics-Filtered	Sodium	140000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1CR2	IDW, RDW	12/7/2007	Miscellaneous	Sulfate	251000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1CR2	GSI, IDW, RDW	12/7/2007	Miscellaneous	TDS	720000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-1CR2	RDW	3/12/2008	Inorganics-Filtered	Sodium	130000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-1CR2	GSI, IDW, RDW	3/12/2008	Miscellaneous	TDS	730000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-20	IDW, RDW	7/25/1995	Inorganics-Filtered	Iron	18,400	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-2A	GSI	7/15/1995	Semivolatiles	Phenanthrene	2.6J	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-2A	GSI, IDW, RDW	5/19/2000	Inorganics-Filtered	Thallium	5.3B	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-2A	GSI, IDW, RDW	5/19/2000	Miscellaneous	Chloride	884,000J	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-2A	GSI	5/19/2000	Miscellaneous	Nitrogen, Ammonia	5,600	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-2A	GSI, IDW, RDW	6/18/2001	Inorganics-Filtered	Thallium	5.9B	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-2A	GSI, IDW, RDW	6/18/2001	Miscellaneous	Chloride	982,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-2A	GSI	6/18/2001	Miscellaneous	Nitrogen, Ammonia	6,600	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-2A	GSI, IDW, RDW	6/26/2002	Miscellaneous	Chloride	1,060,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Green Point Landfill	X-2A	GSI	6/26/2002	Miscellaneous	Nitrogen, Ammonia	7,800	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-2A	GSI	6/17/2003	Miscellaneous	Nitrogen, Ammonia	9,400	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-2A	GSI, IDW, RDW	6/18/2003	Miscellaneous	Chloride	913,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-2A	GSI, IDW, RDW	5/25/2004	Miscellaneous	Chloride	815,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-2A	GSI	5/25/2004	Miscellaneous	Nitrogen, Ammonia	9,300	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-2A	IDW, RDW	6/22/2005	Miscellaneous	Chloride	412000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-2A	GSI	6/22/2005	Inorganics-Filtered	Selenium	16.3	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-2A	RDW	6/22/2005	Inorganics-Filtered	Sodium	131000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-2A	GSI, IDW, RDW	6/22/2005	Miscellaneous	TDS	1300000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-2A	IDW, RDW	12/12/2006	Miscellaneous	Chloride	500000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-2A	GSI	12/12/2006	Miscellaneous	Estimated Un-ionized Ammonia	648	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-2A	RDW	12/12/2006	Inorganics-Filtered	Sodium	274000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-2A	GSI, IDW, RDW	12/12/2006	Miscellaneous	TDS	1000000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-2A	IDW, RDW	12/4/2007	Miscellaneous	Chloride	450000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-2A	GSI	12/4/2007	Miscellaneous	Estimated Un-ionized Ammonia	554.4	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-2A	RDW	12/4/2007	Inorganics-Filtered	Sodium	277000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-2A	GSI, IDW, RDW	12/4/2007	Miscellaneous	TDS	970000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-2A	IDW, RDW	3/10/2008	Miscellaneous	Chloride	660000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-2A	RDW	3/10/2008	Inorganics-Filtered	Sodium	328000	Restrictive Covenant prevents use of the groundwater as a drinking water source.

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Green Point Landfill	X-2A	GSI, IDW, RDW	3/10/2008	Miscellaneous	TDS	1200000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-2B	IDW, RDW	12/12/2006	Miscellaneous	Chloride	429000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-2B	RDW	12/12/2006	Inorganics-Filtered	Sodium	325000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-2B	GSI, IDW, RDW	12/12/2006	Miscellaneous	TDS	1600000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-2B	IDW, RDW	12/4/2007	Miscellaneous	Chloride	720000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-2B	IDW, RDW	12/4/2007	Inorganics-Filtered	Iron	15400	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-2B	IDW, RDW	12/4/2007	Inorganics-Filtered	Sodium	381000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-2B	GSI, IDW, RDW	12/4/2007	Miscellaneous	TDS	1700000 J	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-2B	IDW, RDW	3/10/2008	Miscellaneous	Chloride	734000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-2B	IDW, RDW	3/10/2008	Inorganics-Filtered	Iron	15100	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-2B	RDW	3/10/2008	Inorganics-Filtered	Sodium	340000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-2B	GSI, IDW, RDW	3/10/2008	Miscellaneous	TDS	1800000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-2C	IDW, RDW	7/15/1995	Inorganics-Filtered	Iron	15,700J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-2C	IDW, RDW	12/12/2006	Inorganics-Filtered	Arsenic	13.8	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-2C	IDW, RDW	12/12/2006	Miscellaneous	Chloride	352000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-2C	GSI	12/12/2006	Miscellaneous	Estimated Un-ionized Ammonia	194.4	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-2C	IDW, RDW	12/12/2006	Inorganics-Filtered	Iron	18200	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-2C	RDW	12/12/2006	Inorganics-Filtered	Sodium	244000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-2C	GSI, IDW, RDW	12/12/2006	Miscellaneous	TDS	1400000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Green Point Landfill	X-2C	IDW, RDW	12/4/2007	Inorganics-Filtered	Arsenic	15.8	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-2C	IDW, RDW	12/4/2007	Miscellaneous	Chloride	347000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-2C	GSI	12/4/2007	Miscellaneous	Estimated Un-ionized Ammonia	86.4	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-2C	IDW, RDW	12/4/2007	Inorganics-Filtered	Iron	19900	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-2C	RDW	12/4/2007	Inorganics-Filtered	Sodium	259000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-2C	GSI, IDW, RDW	12/4/2007	Miscellaneous	TDS	1200000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-2C	IDW, RDW	3/10/2008	Inorganics-Filtered	Arsenic	19.8 [19]	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-2C	IDW, RDW	3/10/2008	Miscellaneous	Chloride	358000 [359000]	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-2C	GSI	3/10/2008	Miscellaneous	Estimated Un-ionized Ammonia	180 [187.2]	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-2C	IDW, RDW	3/10/2008	Inorganics-Filtered	Iron	20700 [21000]	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-2C	RDW	3/10/2008	Inorganics-Filtered	Sodium	225000 [222000]	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-2C	GSI, IDW, RDW	3/10/2008	Miscellaneous	TDS	1200000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-2DAUG	IDW, RDW	12/13/2006	Miscellaneous	Chloride	555000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-2DAUG	IDW, RDW	12/13/2006	Inorganics-Filtered	Iron	14800	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-2DAUG	RDW	12/13/2006	Inorganics-Filtered	Sodium	159000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-2DAUG	GSI, IDW, RDW	12/13/2006	Miscellaneous	TDS	1700000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-2DAUG	IDW, RDW	12/5/2007	Miscellaneous	Chloride	434000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-2DAUG	RDW	12/5/2007	Inorganics-Filtered	Sodium	128000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-2DAUG	GSI, IDW, RDW	12/5/2007	Miscellaneous	TDS	1200000 J	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Green Point Landfill	X-2DAUG	IDW, RDW	3/10/2008	Miscellaneous	Chloride	353000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-2DAUG	GSI	3/10/2008	Inorganics-Filtered	Mercury	0.15 J	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-2DAUG	RDW	3/10/2008	Inorganics-Filtered	Sodium	127000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-2DAUG	GSI, IDW, RDW	3/10/2008	Miscellaneous	TDS	1100000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-3AR	GSI, IDW, RDW	6/20/1995	Inorganics-Filtered	Antimony	6.4	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-3AR	GSI, IDW, RDW	6/20/1995	Inorganics-Filtered	Barium	9,530	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-3AR	IDW, RDW	6/20/1995	Inorganics-Filtered	Aluminum	519	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-3AR	IDW, RDW	6/20/1995	Inorganics-Filtered	Iron	320,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-3AR	IDW, RDW	6/20/1995	Inorganics-Filtered	Magnesium	1,640,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-3AR	IDW, RDW	6/20/1995	Inorganics-Filtered	Manganese	3,670	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-3AR	GSI, IDW, RDW	7/14/1995	Miscellaneous	Chloride	9,900,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-3AR	GSI, IDW, RDW	7/14/1995	Miscellaneous	Nitrogen, Ammonia	3,80000 J	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-3AR	GSI	7/31/1995	Inorganics-Filtered	Copper	28	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-3AR	GSI, IDW, RDW	7/31/1995	Inorganics-Filtered	Antimony	9	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-3AR	GSI, IDW, RDW	7/31/1995	Inorganics-Filtered	Barium	11,800	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-3AR	GSI, RDW	7/31/1995	Inorganics-Filtered	Vanadium	44	Monitoring well is not located within the groundwater surface water interface and residential criteria do not apply to this area of the site.
Green Point Landfill	X-3AR	GSI, IDW, RDW	7/31/1995	Volatiles	1,4-Dioxane	640 J	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Green Point Landfill	X-3AR	IDW, RDW	6/6/1996	Inorganics	Iron	365,700	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-3AR	IDW, RDW	6/6/1996	Inorganics	Manganese	2,892	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-3AR	GSI, IDW, RDW	6/6/1996	Inorganics-Filtered	Barium	10,400	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-3AR	GSI, IDW, RDW	6/6/1996	Inorganics-Filtered	Barium	10,900	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-3AR	IDW, RDW	6/6/1996	Inorganics-Filtered	Iron	344,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-3AR	IDW, RDW	6/6/1996	Inorganics-Filtered	Iron	372,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-3AR	IDW, RDW	6/6/1996	Inorganics-Filtered	Magnesium	1,660,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-3AR	IDW, RDW	6/6/1996	Inorganics-Filtered	Magnesium	1,720,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-3AR	IDW, RDW	6/6/1996	Inorganics-Filtered	Manganese	3,220	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-3AR	IDW, RDW	6/6/1996	Inorganics-Filtered	Manganese	3,170	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-3AR	GSI, IDW, RDW	6/6/1996	Volatiles	1,4-Dioxane	660	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-3AR	GSI, IDW, RDW	6/6/1996	Volatiles	1,4-Dioxane	670	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-3BR	GSI	7/15/1995	Miscellaneous	Chloride	230,000	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-3CAUG	GSI	7/14/1995	Miscellaneous	Nitrogen, Ammonia	2,800 J	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-3CAUG	GSI, IDW, RDW	7/14/1995	Miscellaneous	Chloride	390,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-3CAUG	GSI, IDW, RDW	7/14/1995	Miscellaneous	Chloride	330,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-4AR	GSI	7/24/1995	Inorganics	Chromium (Total)	70	Additional sampling showed concentrations below criteria.
Green Point Landfill	X-4AR	GSI	7/24/1995	Inorganics	Copper	60	Additional sampling showed concentrations below criteria.

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SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Green Point Landfill	X-4AR	GSI	7/24/1995	Inorganics	Zinc	4,170	Additional sampling showed concentrations below criteria.
Green Point Landfill	X-4AR	GSI, IDW, RDW	7/24/1995	Inorganics	Vanadium	83.2	Additional sampling showed concentrations below criteria.
Green Point Landfill	X-4AR	IDW, RDW	7/24/1995	Inorganics	Aluminum	42,600	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-4AR	IDW, RDW	7/24/1995	Inorganics	Iron	72,400	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-4AR	IDW, RDW	7/24/1995	Inorganics	Lead	27.4	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-4AR	GSI	7/24/1995	Inorganics-Filtered	Zinc	341	Additional sampling showed concentrations below criteria.
Green Point Landfill	X-4AR	GSI, IDW, RDW	5/21/2000	Inorganics	Thallium	7.3 B	Restrictive Covenant prevents use of the groundwater as a drinking water source; well is part of GSI monitoring program
Green Point Landfill	X-4AR	GSI, IDW, RDW	5/21/2000	Inorganics-Filtered	Thallium	4.6 B	Restrictive Covenant prevents use of the groundwater as a drinking water source; well is part of GSI monitoring program
Green Point Landfill	X-4AR	GSI	12/14/2006	Inorganics-Filtered	Cyanide	7.9 J	Monitoring well is part of GSI monitoring program.
Green Point Landfill	X-4AR	GSI	12/14/2006	Inorganics	Mercury	0.11 J	Monitoring well is part of GSI monitoring program.
Green Point Landfill	X-4AR	GSI, IDW, RDW	12/14/2006	Miscellaneous	TDS	570000	Restrictive Covenant prevents use of the groundwater as a drinking water source; well is part of GSI monitoring program
Green Point Landfill	X-4CAUGR	GSI	1/9/2008	Miscellaneous	Estimated Un-ionized Ammonia	108	Monitoring well is part of GSI monitoring program.
Green Point Landfill	X-4CAUGR	GSI, IDW, RDW	1/9/2008	Miscellaneous	TDS	550000	Restrictive Covenant prevents use of the groundwater as a drinking water source; well is part of GSI monitoring program
Green Point Landfill	X-4CAUGR	GSI	3/12/2008	Miscellaneous	Estimated Un-ionized Ammonia	144	Monitoring well is part of GSI monitoring program.
Green Point Landfill	X-4CAUGR	GSI, IDW, RDW	3/12/2008	Miscellaneous	TDS	580000	Restrictive Covenant prevents use of the groundwater as a drinking water source; well is part of GSI monitoring program
Green Point Landfill	X-4D	IDW, RDW	1/9/2008	Miscellaneous	Chloride	1400000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-4D	GSI	1/9/2008	Miscellaneous	Estimated Un-ionized Ammonia	496.8	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-4D	IDW, RDW	1/9/2008	Inorganics	Sodium	733000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-4D	IDW, RDW	1/9/2008	Inorganics-Filtered	Sodium	718000	Restrictive Covenant prevents use of the groundwater as a drinking water source.

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TABLE 2-3
SUMMARY OF SITE GROUNDWATER DATA THAT EXCEEDS GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Green Point Landfill	X-4D	GSI, IDW, RDW	1/9/2008	Miscellaneous	TDS	2300000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-4D	IDW, RDW	4/1/2008	Miscellaneous	Chloride	1460000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-4D	GSI	4/1/2008	Miscellaneous	Estimated Un-ionized Ammonia	633.6 [583.2]	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-4D	IDW, RDW	4/1/2008	Inorganics-Filtered	Sodium	726000 [708000]	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-4D	GSI, IDW, RDW	4/1/2008	Miscellaneous	TDS	2500000 [2600000 J]	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-4D	IDW, RDW	4/3/2008	Inorganics	Sodium	701000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-4D	GSI	6/5/2008	Miscellaneous	Estimated Un-ionized Ammonia	446.4 [527.04]	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-4D	GSI, IDW, RDW	6/5/2008	Miscellaneous	TDS	3300000 [2820000]	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-5A	IDW, RDW	6/21/1995	Inorganics-Filtered	Iron	27,800	Restrictive Covenant prevents use of the groundwater as a drinking water source and monitoring well is not a GSI monitoring point.
Green Point Landfill	X-5A	IDW, RDW	6/21/1995	Volatiles	Benzene	12	Restrictive Covenant prevents use of the groundwater as a drinking water source and monitoring well is not a GSI monitoring point.
Green Point Landfill	X-5A	GSI, IDW, RDW	7/19/1995	Miscellaneous	Chloride	840,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-5A	GSI, IDW, RDW	7/19/1995	Semivolatiles	Pentachlorophenol	3.2J	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-5A	GSI, IDW, RDW	7/19/1995	Volatiles	Benzene	13	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-5A	IDW, RDW	6/6/1996	Inorganics	Iron	34,300	Restrictive Covenant prevents use of the groundwater as a drinking water source and monitoring well is not a GSI monitoring point.
Green Point Landfill	X-5A	IDW, RDW	6/6/1996	Inorganics-Filtered	Iron	37,000	Restrictive Covenant prevents use of the groundwater as a drinking water source and monitoring well is not a GSI monitoring point.
Green Point Landfill	X-5A	GSI, IDW, RDW	6/6/1996	Volatiles	Benzene	13	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Green Point Landfill	X-5B	GSI	6/21/1995	Inorganics	Cyanide, Total	9.2	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-5B	IDW, RDW	6/21/1995	Volatiles	Benzene	7	Restrictive Covenant prevents use of the groundwater as a drinking water source and monitoring well is not a GSI monitoring point.
Green Point Landfill	X-5B	GSI	7/19/1995	Inorganics	Cyanide, Total	7	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-5B	GSI	7/19/1995	Inorganics-Filtered	Barium	1,270	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-5B	GSI, IDW, RDW	7/19/1995	Miscellaneous	Chloride	1,600,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-5B	GSI	7/19/1995	Miscellaneous	Nitrogen, Ammonia	4,800	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-5B	GSI, IDW, RDW	7/19/1995	Volatiles	1,4-Dioxane	650J	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-5B	IDW, RDW	7/19/1995	Volatiles	Benzene	8.3	Restrictive Covenant prevents use of the groundwater as a drinking water source and monitoring well is not a GSI monitoring point.
Green Point Landfill	X-5B	IDW, RDW	7/19/1995	Volatiles	Vinyl chloride	9.8	Restrictive Covenant prevents use of the groundwater as a drinking water source and monitoring well is not a GSI monitoring point.
Green Point Landfill	X-5B	GSI, IDW, RDW	6/6/1996	Volatiles	1,4-Dioxane	440	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-5B	IDW, RDW	6/6/1996	Volatiles	Benzene	7.7	Restrictive Covenant prevents use of the groundwater as a drinking water source and monitoring well is not a GSI monitoring point.
Green Point Landfill	X-5B	IDW, RDW	6/6/1996	Volatiles	Vinyl chloride	8.8	Restrictive Covenant prevents use of the groundwater as a drinking water source and monitoring well is not a GSI monitoring point.
Green Point Landfill	X-5CR	GSI	7/19/1995	Miscellaneous	Chloride	59,000	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-5CR	GSI	7/19/1995	Miscellaneous	Nitrogen, Ammonia	1,700	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-6A	GSI, IDW, RDW	9/26/1995	Inorganics-Filtered	Antimony	14.2	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-6A	GSI	9/26/1995	Miscellaneous	Phosphorous, Total	13,000	Monitoring well is not located within the groundwater surface water interface.

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Green Point Landfill	X-6A	GSI, IDW, RDW	9/26/1995	Miscellaneous	Chloride	1,000,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-6A	GSI, IDW, RDW	9/26/1995	Miscellaneous	Nitrogen, Ammonia	380,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-6A	GCC, GSI, IDW, RDW	9/26/1995	PCBs	Total Aroclors	3.8	Located at 75 ft, under landfill cap p 4-17.
Green Point Landfill	X-6A	GCC	9/26/1995	Semivolatiles	Benzo(a)pyrene	1.5 J	Located at 75 ft, under landfill cap p 4-17.
Green Point Landfill	X-6A	GCC, IDW, RDW, WS	9/26/1995	Semivolatiles	Benzo(b)fluoranthene	2.4 J	Located at 75 ft, under landfill cap p 4-17.
Green Point Landfill	X-6A	GCC, IDW, RDW, WS	9/26/1995	Semivolatiles	Chrysene	2.6 J	Located at 75 ft, under landfill cap p 4-17.
Green Point Landfill	X-6A	GSI	9/26/1995	Semivolatiles	Fluoranthene	8.4	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-6A	GSI	9/26/1995	Semivolatiles	Phenanthrene	14	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-6A	GSI, IDW, RDW	9/26/1995	Semivolatiles	bis(2-Ethylhexyl)phthalate	71	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-6B	GSI	9/26/1995	Inorganics	Cyanide, Total	5.7	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-6B	GSI, IDW, RDW	9/26/1995	Inorganics-Filtered	Antimony	19	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-6B	IDW, RDW	9/26/1995	Inorganics-Filtered	Aluminum	1,890 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-6B	IDW, RDW	9/26/1995	Inorganics-Filtered	Lead	8.9	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-6B	GSI	9/26/1995	Miscellaneous	Phosphorous, Total	5,800	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-6B	GSI, IDW, RDW	9/26/1995	Miscellaneous	Chloride	1,400,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-6B	GSI, IDW, RDW	9/26/1995	Miscellaneous	Nitrogen, Ammonia	280,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-6B	GCC, GSI, IDW, RDW	9/26/1995	PCBs	Total Aroclors	8.2	Located at 75 ft, under landfill cap p 4-17; addressed by site specific clean up (HHE Section 6-17).
Green Point Landfill	X-6B	GAI, GCC, GSI, IDW, RDW, WS	9/26/1995	Semivolatiles	bis(2-Ethylhexyl)phthalate	450	Located at 75 ft, under landfill cap p 4-17; addressed by site specific clean up (HHE Section 6-17).
Green Point Landfill	X-6B	GCC, IDW, RDW, WS	9/26/1995	Semivolatiles	Benzo(a)pyrene	7.6 J	Located at 75 ft, under landfill cap p 4-17; addressed by site specific clean up (HHE Section 6-14).
Green Point Landfill	X-6B	GCC, IDW, RDW, WS	9/26/1995	Semivolatiles	Benzo(b)fluoranthene	12 J	Located at 75 ft, under landfill cap p 4-17; addressed by site specific clean up (HHE Section 6-14).

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SUMMARY OF SITE GROUNDWATER DATA THAT EXCEEDS GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Green Point Landfill	X-6B	GCC, IDW, RDW, WS	9/26/1995	Semivolatiles	Benzo(g,h,i)perylene	4 J	Located at 75 ft, under landfill cap p 4-17; addressed by site specific clean up (HHE Section 6-14).
Green Point Landfill	X-6B	GCC, IDW, RDW, WS	9/26/1995	Semivolatiles	Indeno(1,2,3-cd)pyrene	4.4 J	Located at 75 ft, under landfill cap p 4-17; addressed by site specific clean up (HHE Section 6-17).
Green Point Landfill	X-6B	GSI	9/26/1995	Semivolatiles	Carbazole	11 J	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-6B	GSI	9/26/1995	Semivolatiles	Dibenzofuran	7 J	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-6B	GSI	9/26/1995	Semivolatiles	Fluoranthene	27	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-6B	GSI	9/26/1995	Semivolatiles	Naphthalene	54	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-6B	GSI	9/26/1995	Semivolatiles	Phenanthrene	38	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-6B	GSI, IDW, RDW, WS	9/26/1995	Semivolatiles	Chrysene	9.4 J	Located at 75 ft, under landfill cap p 4-17; addressed by site specific clean up (HHE Section 6-17).
Green Point Landfill	X-6B	RDW	9/26/1995	Semivolatiles	Benzo(a)anthracene	7.9 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-7A	GSI	6/20/1995	Inorganics	Cyanide, Total	8.7	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-7A	GSI, IDW, RDW	6/20/1995	Inorganics-Filtered	Antimony	7.9	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-7A	IDW, RDW	6/20/1995	Inorganics-Filtered	Iron	29,500	Restrictive Covenant prevents use of the groundwater as a drinking water source and monitoring well is not a GSI monitoring point.
Green Point Landfill	X-7A	GSI, IDW, RDW	6/20/1995	Inorganics-Filtered	Nickel	147	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-7A	GSI	6/20/1995	Semivolatiles	Naphthalene	51	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-7A	GSI	6/20/1995	Semivolatiles	Phenanthrene	4.6J	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-7A	GSI, IDW, RDW	6/20/1995	Volatiles	Benzene	820	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-7A	GSI	6/20/1995	Volatiles	Ethylbenzene	40	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-7A	GSI	6/20/1995	Volatiles	Xylenes, Total	56J	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-7A	IDW, RDW	6/12/1996	Inorganics	Iron	73,350	Restrictive Covenant prevents use of the groundwater as a drinking water source and monitoring well is not a GSI monitoring point.

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SUMMARY OF SITE GROUNDWATER DATA THAT EXCEEDS GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Green Point Landfill	X-7A	GSI, IDW, RDW	6/12/1996	Inorganics-Filtered	Antimony	11.1	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-7A	IDW, RDW	6/12/1996	Inorganics-Filtered	Iron	23,300J	Restrictive Covenant prevents use of the groundwater as a drinking water source and monitoring well is not a GSI monitoring point.
Green Point Landfill	X-7A	GSI, IDW, RDW	6/12/1996	Inorganics-Filtered	Nickel	173	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-7A	GSI	6/12/1996	Semivolatiles	1,4-Dichlorobenzene	59	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-7A	GSI	6/12/1996	Semivolatiles	Naphthalene	39	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-7A	GSI, IDW, RDW	6/12/1996	Volatiles	Benzene	520J	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-7A	GSI	6/12/1996	Volatiles	Ethylbenzene	28	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-7A	GSI	6/12/1996	Volatiles	Xylenes, Total	41J	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-7A	IDW, RDW	3/11/1997	Inorganics	Iron	25,000,000	Restrictive Covenant prevents use of the groundwater as a drinking water source and monitoring well is not a GSI monitoring point.
Green Point Landfill	X-7A	GSI, IDW, RDW	3/11/1997	Inorganics	Manganese	198,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-7BR	GSI, IDW, RDW	6/20/1995	Inorganics-Filtered	Barium	3,460	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-7BR	GSI, IDW, RDW	6/20/1995	Inorganics-Filtered	Manganese	4,660	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-7BR	IDW, RDW	6/20/1995	Inorganics-Filtered	Aluminum	246	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-7BR	IDW, RDW	6/20/1995	Inorganics-Filtered	Iron	130,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-7BR	RDW	6/20/1995	Inorganics-Filtered	Magnesium	525,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-7BR	IDW, RDW	6/20/1995	Volatiles	Benzene	6.5	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-7BR	GSI, IDW, RDW	7/19/1995	Miscellaneous	Chloride	7,200,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.

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SUMMARY OF SITE GROUNDWATER DATA THAT EXCEEDS GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Green Point Landfill	X-7BR	GSI, IDW, RDW	7/19/1995	Miscellaneous	Nitrogen, Ammonia	60,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-7BR	IDW, RDW	6/5/1996	Inorganics	Iron	127,300	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-7BR	IDW, RDW	6/5/1996	Inorganics	Manganese	4,164	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-7BR	GSI, IDW, RDW	6/5/1996	Inorganics-Filtered	Barium	3,470	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-7BR	GSI, IDW, RDW	6/5/1996	Inorganics-Filtered	Manganese	4,540	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-7BR	IDW, RDW	6/5/1996	Inorganics-Filtered	Iron	140,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-7BR	RDW	6/5/1996	Inorganics-Filtered	Magnesium	624,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-7BR	IDW, RDW	3/11/1997	Inorganics	Iron	73,300	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-7BR	IDW, RDW	3/11/1997	Inorganics	Manganese	3,700	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-7BR	IDW, RDW	3/11/1997	Inorganics-Filtered	Iron	114,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-7BR	IDW, RDW	3/11/1997	Inorganics-Filtered	Manganese	3,700	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-7CAUG	GSI	7/19/1995	Miscellaneous	Chloride	220,000	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-7CAUG	GSI, IDW, RDW	7/19/1995	Miscellaneous	Nitrogen, Ammonia	34,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-7DAUG	GSI	7/19/1995	Miscellaneous	Nitrogen, Ammonia	3,000	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-7DAUG	GSI, IDW, RDW	7/19/1995	Miscellaneous	Chloride	340,000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-9AR	IDW, RDW	7/24/1995	Inorganics	Aluminum	797	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-9AR	GSI, IDW, RDW	12/15/2006	Miscellaneous	TDS	790000	Restrictive Covenant prevents use of the groundwater as a drinking water source; well is part of GSI monitoring program
Green Point Landfill	X-9AR	GSI, IDW, RDW	1/10/2008	Miscellaneous	TDS	770000	Restrictive Covenant prevents use of the groundwater as a drinking water source; well is part of GSI monitoring program

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SUMMARY OF SITE GROUNDWATER DATA THAT EXCEEDS GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Green Point Landfill	X-9AR	GSI	3/11/2008	Inorganics	Mercury	0.13 J	Additional sampling showed concentrations below criteria.
Green Point Landfill	X-9AR	GSI	3/11/2008	Inorganics	Selenium	8.2	Monitoring well is part of GSI monitoring program.
Green Point Landfill	X-9AR	GSI	3/11/2008	Inorganics-Filtered	Selenium	9.8	Monitoring well is part of GSI monitoring program.
Green Point Landfill	X-9AR	GSI, IDW, RDW	3/11/2008	Miscellaneous	TDS	600000	Restrictive Covenant prevents use of the groundwater as a drinking water source; well is part of GSI monitoring program
Green Point Landfill	X-9BR	GSI	12/15/2006	Miscellaneous	Estimated Un-ionized Ammonia	424.8	Monitoring well is part of GSI monitoring program.
Green Point Landfill	X-9BR	RDW	12/15/2006	Inorganics-Filtered	Sodium	125000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-9BR	GSI, IDW, RDW	12/15/2006	Miscellaneous	TDS	830000	Restrictive Covenant prevents use of the groundwater as a drinking water source; well is part of GSI monitoring program
Green Point Landfill	X-9BR	GSI	1/8/2008	Miscellaneous	Estimated Un-ionized Ammonia	374.4	Monitoring well is part of GSI monitoring program.
Green Point Landfill	X-9BR	RDW	1/8/2008	Inorganics	Sodium	122000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-9BR	GSI, IDW, RDW	1/8/2008	Miscellaneous	TDS	810000	Restrictive Covenant prevents use of the groundwater as a drinking water source; well is part of GSI monitoring program
Green Point Landfill	X-9BR	GSI	3/11/2008	Miscellaneous	Estimated Un-ionized Ammonia	360	Monitoring well is part of GSI monitoring program.
Green Point Landfill	X-9BR	GSI, IDW, RDW	3/11/2008	Miscellaneous	TDS	760000	Restrictive Covenant prevents use of the groundwater as a drinking water source; well is part of GSI monitoring program
Green Point Landfill	X-9CAUG	GSI	12/15/2006	Miscellaneous	Estimated Un-ionized Ammonia	208.8	Monitoring well is part of GSI monitoring program.
Green Point Landfill	X-9CAUG	GSI, IDW, RDW	12/15/2006	Miscellaneous	TDS	690000	Restrictive Covenant prevents use of the groundwater as a drinking water source; well is part of GSI monitoring program
Green Point Landfill	X-9CAUG	GSI	1/8/2008	Miscellaneous	Estimated Un-ionized Ammonia	230.4	Monitoring well is part of GSI monitoring program.
Green Point Landfill	X-9CAUG	GSI, IDW, RDW	1/8/2008	Miscellaneous	TDS	700000	Restrictive Covenant prevents use of the groundwater as a drinking water source; well is part of GSI monitoring program
Green Point Landfill	X-9CAUG	GSI	3/11/2008	Miscellaneous	Estimated Un-ionized Ammonia	237.6	Monitoring well is part of GSI monitoring program.
Green Point Landfill	X-9CAUG	GSI, IDW, RDW	3/11/2008	Miscellaneous	TDS	680000	Restrictive Covenant prevents use of the groundwater as a drinking water source; well is part of GSI monitoring program
Green Point Landfill	X-9D	IDW, RDW	1/8/2008	Miscellaneous	Chloride	1370000	Restrictive Covenant prevents use of the groundwater as a drinking water source.

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Green Point Landfill	X-9D	GSI	1/8/2008	Miscellaneous	Estimated Un-ionized Ammonia	612	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-9D	IDW, RDW	1/8/2008	Inorganics	Sodium	717000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-9D	IDW, RDW	1/8/2008	Inorganics-Filtered	Sodium	634000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-9D	GSI, IDW, RDW	1/8/2008	Miscellaneous	TDS	2400000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-9D	IDW, RDW	3/11/2008	Miscellaneous	Chloride	1340000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-9D	GSI	3/11/2008	Miscellaneous	Estimated Un-ionized Ammonia	698.4	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-9D	IDW, RDW	3/11/2008	Inorganics	Sodium	635000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-9D	IDW, RDW	3/11/2008	Inorganics-Filtered	Sodium	678000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Green Point Landfill	X-9D	GSI, IDW, RDW	3/11/2008	Miscellaneous	TDS	2500000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Green Point Landfill	X-9D	GSI	6/5/2008	Miscellaneous	Estimated Un-ionized Ammonia	424.8	Monitoring well is not located within the groundwater surface water interface.
Green Point Landfill	X-9D	GSI, IDW, RDW	6/5/2008	Miscellaneous	TDS	2900000	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
LNAPL Investigation Area	MW-151WT	IDW, RDW	10/20/1995	Inorganics-Filtered	Manganese	2,170	Restrictive Covenant prevents use of the groundwater as a drinking water source.
LNAPL Investigation Area	MW-152WT	IDW, RDW	6/5/1996	Inorganics	Manganese	3,507	Restrictive Covenant prevents use of the groundwater as a drinking water source.
LNAPL Investigation Area	MW-152WT	IDW, RDW	6/5/1996	Inorganics-Filtered	Manganese	4,370	Restrictive Covenant prevents use of the groundwater as a drinking water source.
LNAPL Investigation Area	MW-153WT	GSI, IDW, RDW	10/20/1995	Inorganics-Filtered	Arsenic	50.8	Monitoring well is not located within the groundwater surface water interface.
LNAPL Investigation Area	MW-154WT	GSI	10/19/1995	Inorganics	Cyanide, Total	50	Monitoring well is not located within the groundwater surface water interface.
LNAPL Investigation Area	MW-154WT	IDW, RDW	10/19/1995	Semivolatiles	Pentachlorophenol	2.7 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
LNAPL Investigation Area	MW-154WT	GSI	6/13/1996	Inorganics-Filtered	Cyanide, Total	53	Monitoring well is not located within the groundwater surface water interface.
LNAPL Investigation Area	MW-156WT	GSI	10/20/1995	Inorganics	Cyanide, Total	21	Monitoring well is not located within the groundwater surface water interface.
LNAPL Investigation Area	MW-156WT	IDW, RDW	10/20/1995	Semivolatiles	bis(2-Ethylhexyl)phthalate	8.7	Restrictive Covenant prevents use of the groundwater as a drinking water source.

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
LNAPL Investigation Area	MW-156WT	GSI, IDW, RDW	10/20/1995	Volatiles	Trichloroethene	32	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
LNAPL Investigation Area	MW-156WT	GSI, IDW, RDW	10/20/1995	Volatiles	Trichloroethene	35	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
LNAPL Investigation Area	MW-156WT	GSI, IDW, RDW	10/20/1995	Volatiles	Vinyl chloride	94	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
LNAPL Investigation Area	MW-156WT	GSI, IDW, RDW	10/20/1995	Volatiles	Vinyl chloride	110	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
LNAPL Investigation Area	MW-156WT	IDW, RDW	10/20/1995	Volatiles	cis-1,2-Dichloroethene	190	Restrictive Covenant prevents use of the groundwater as a drinking water source.
LNAPL Investigation Area	MW-156WT	IDW, RDW	10/20/1995	Volatiles	cis-1,2-Dichloroethene	200	Restrictive Covenant prevents use of the groundwater as a drinking water source.
LNAPL Investigation Area	MW-156WT	GSI, IDW, RDW	6/7/1996	Volatiles	Trichloroethene	88	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
LNAPL Investigation Area	MW-156WT	GSI, IDW, RDW	6/7/1996	Volatiles	Vinyl chloride	130	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
LNAPL Investigation Area	MW-156WT	IDW, RDW	6/7/1996	Volatiles	1,1-Dichloroethene	7.5 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
LNAPL Investigation Area	MW-156WT	IDW, RDW	6/7/1996	Volatiles	cis-1,2-Dichloroethene	290	Restrictive Covenant prevents use of the groundwater as a drinking water source.
LNAPL Investigation Area	MW-170WT	GCC, GSI, IDW, IGVIA, RDW, RGVIA, WS	8/5/1998	PCBs	Total Aroclors	620	LNAPL was present at the time sampling (RI Table 4-31, this area has been excavated and the well abandoned (RI 4-22);Residential standards not applicable to the site (HHE Section 4-3).
Metal Feed Stock Area	B-6R	IDW, RDW	7/21/1995	Inorganics-Filtered	Iron	26,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Metal Feed Stock Area	B-6R	IDW, RDW	6/6/1996	Inorganics-Filtered	Iron	26,600	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Metal Feed Stock Area	MW-130S1	IDW, RDW	7/20/1995	Inorganics-Filtered	Iron	28,300	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Metal Feed Stock Area	MW-130S1	IDW, RDW	6/6/1996	Inorganics-Filtered	Iron	28,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Metal Feed Stock Area	MW-130S2	IDW, RDW	7/20/1995	Inorganics-Filtered	Iron	18,400	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Metal Feed Stock Area	MW-130S2	IDW, RDW	6/6/1996	Inorganics-Filtered	Iron	20,100	Restrictive Covenant prevents use of the groundwater as a drinking water source.

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SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Metal Feed Stock Area	MW-130WT	IDW, RDW	7/20/1995	Inorganics-Filtered	Iron	37,800	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Metal Feed Stock Area	MW-130WT	IDW, RDW	6/6/1996	Inorganics-Filtered	Iron	36,400	Restrictive Covenant prevents use of the groundwater as a drinking water source.
North of Railyard	MW-101WT	GSI	6/5/1996	Inorganics-Filtered	Silver	0.5	Monitoring well is not located within the groundwater surface water interface.
North of Railyard	MW-101WT	IDW, RDW	5/18/2000	Inorganics	Iron	14,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
North Perimeter	MW-4	IDW, RDW	7/29/1995	Semivolatiles	bis(2-Ethylhexyl)phthalate	23	Restrictive Covenant prevents use of the groundwater as a drinking water source.
North Perimeter	MW-4	GSI, IDW, RDW	6/10/1996	Inorganics-Filtered	Antimony	6.9	Restrictive Covenant prevents use of the groundwater as a drinking water source. Monitoring well is not located within the groundwater surface water interface.
Peninsula Area	MW-142WT	GSI	7/30/1995	Inorganics	Cyanide, Total	100	Monitoring well is not located within the groundwater surface water interface.
Peninsula Area	MW-142WT	GSI, IDW, RDW	7/30/1995	Inorganics-Filtered	Barium	7,650	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Peninsula Area	MW-142WT	GSI	6/11/1996	Inorganics-Filtered	Cyanide, Total	32	Monitoring well is not located within the groundwater surface water interface.
Peninsula Area	MW-142WT	IDW, RDW	6/11/1996	Inorganics-Filtered	Manganese	4,080	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Peninsula Area	MW-144WT	IDW, RDW	7/29/1995	Inorganics-Filtered	Iron	16,400	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Peninsula Area	MW-144WT	IDW, RDW	7/29/1995	Inorganics-Filtered	Iron	18,600	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Peninsula Area	MW-144WT	IDW, RDW	7/29/1995	Volatiles	Benzene	6.3	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Peninsula Area	MW-144WT	IDW, RDW	7/29/1995	Volatiles	Benzene	7.6	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Peninsula Area	MW-144WT	IDW, RDW	6/8/1996	Volatiles	Benzene	5.6	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	MW-120S1	GSI, IDW, RDW	7/18/1995	Inorganics-Filtered	Arsenic	50.9	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Previously Proposed Type III Landfill	MW-120S1	GSI, IDW, RDW	6/11/1996	Inorganics-Filtered	Arsenic	50.2	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Previously Proposed Type III Landfill	MW-120S2	GSI	7/18/1995	Inorganics	Cyanide, Total	17	Monitoring well is not located within the groundwater surface water interface.
Previously Proposed Type III Landfill	MW-120WT	IDW, RDW	7/18/1995	Inorganics-Filtered	Iron	17,300	Restrictive Covenant prevents use of the groundwater as a drinking water source.

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Previously Proposed Type III Landfill	MW-120WT	IDW, RDW	6/11/1996	Inorganics-Filtered	Iron	15,500	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	MW-121S1	GSI, IDW, RDW	7/18/1995	Inorganics-Filtered	Arsenic	53.9	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Previously Proposed Type III Landfill	MW-121WT	IDW, RDW	7/18/1995	Inorganics-Filtered	Iron	22,700	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Previously Proposed Type III Landfill	MW-121WT	IDW, RDW	6/4/1996	Inorganics-Filtered	Iron	20,200 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Queen St Dump	MW-102WT	IDW, RDW	7/25/1995	Inorganics-Filtered	Iron	25,900	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Queen St Dump	MW-102WT	IDW, RDW	6/3/1996	Inorganics-Filtered	Iron	27,700 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Queen St Dump	MW-103S1	IDW, RDW	7/12/1995	Inorganics-Filtered	Iron	18,600	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Queen St Dump	MW-103S1	IDW, RDW	6/4/1996	Inorganics-Filtered	Iron	16,700 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Queen St Dump	MW-103S2	GSI	7/12/1995	Inorganics	Cyanide, Total	6.7	Monitoring well is not located within the groundwater surface water interface.
Queen St Dump	MW-103S2	GSI	7/12/1995	Inorganics-Filtered	Copper	27	Monitoring well is not located within the groundwater surface water interface.
Queen St Dump	MW-103S2	IDW, RDW	7/12/1995	Inorganics-Filtered	Iron	21,300	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Queen St Dump	MW-103S2	IDW, RDW	7/12/1995	Inorganics-Filtered	Vanadium	56	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Queen St Dump	MW-103S2	IDW, RDW	6/4/1996	Inorganics-Filtered	Iron	21,200 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Queen St Dump	MW-103S2	IDW, RDW	6/4/1996	Inorganics-Filtered	Iron	24,500	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Queen St Dump	MW-103WT	GSI	7/12/1995	Inorganics	Cyanide, Total	8	Monitoring well is not located within the groundwater surface water interface.
Queen St Dump	MW-104S1	IDW, RDW	7/12/1995	Inorganics-Filtered	Iron	21,800	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Queen St Dump	MW-104S1	IDW, RDW	6/4/1996	Inorganics-Filtered	Iron	31,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Queen St Dump	MW-104S2	GSI	7/12/1995	Inorganics-Filtered	Copper	27	Monitoring well is not located within the groundwater surface water interface.
Queen St Dump	MW-104S2	GSI, RDW	7/12/1995	Inorganics-Filtered	Vanadium	54	Restrictive Covenant prevents use of the groundwater as a drinking water source and monitoring well is not a GSI monitoring point.
Queen St Dump	MW-104S2	IDW, RDW	7/12/1995	Inorganics-Filtered	Iron	20,400	Restrictive Covenant prevents use of the groundwater as a drinking water source.

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Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Queen St Dump	MW-104S2	IDW, RDW	6/5/1996	Inorganics-Filtered	Aluminum	320	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Queen St Dump	MW-104S2	IDW, RDW	6/5/1996	Inorganics-Filtered	Iron	21,600	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Queen St Dump	MW-104WT	GSI	7/12/1995	Inorganics	Cyanide, Total	13	Monitoring well is not located within the groundwater surface water interface.
Queen St Dump	MW-104WT	GSI, IDW, RDW	7/12/1995	Inorganics-Filtered	Barium	2,290	Restrictive Covenant prevents use of the groundwater as a drinking water source and monitoring well is not a GSI monitoring point.
Queen St Dump	MW-104WT	IDW, RDW	7/12/1995	Inorganics-Filtered	Iron	27,600	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Queen St Dump	MW-104WT	GSI	6/4/1996	Inorganics-Filtered	Barium	1,440	Monitoring well is not located within the groundwater surface water interface.
Queen St Dump	MW-104WT	IDW, RDW	6/4/1996	Inorganics-Filtered	Iron	20,700 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Queen St Dump	MW-105S2	GSI, RDW	7/12/1995	Inorganics-Filtered	Vanadium	27	Restrictive Covenant prevents use of the groundwater as a drinking water source and monitoring well is not a GSI monitoring point.
Queen St Dump	MW-105S2	IDW, RDW	7/12/1995	Inorganics-Filtered	Iron	16,400	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Queen St Dump	MW-140S1	IDW, RDW	7/20/1995	Inorganics-Filtered	Iron	33,200	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Queen St Dump	MW-140S1	IDW, RDW	6/5/1996	Inorganics-Filtered	Iron	37,400	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Queen St Dump	MW-140S2	IDW, RDW	7/20/1995	Inorganics-Filtered	Iron	21,800	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Queen St Dump	MW-140S2	IDW, RDW	6/5/1996	Inorganics-Filtered	Iron	20,400	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Queen St Dump	MW-140WT	IDW, RDW	7/20/1995	Inorganics-Filtered	Iron	29,300	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Queen St Dump	MW-140WT	IDW, RDW	7/20/1995	Semivolatiles	bis(2-Ethylhexyl)phthalate	19	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Queen St Dump	MW-140WT	IDW, RDW	6/5/1996	Inorganics-Filtered	Iron	20,700	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Queen St Dump	MW-140WT	IDW, RDW	6/5/1996	Inorganics-Filtered	Manganese	2,130	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Queen St Dump	MW-140WT	GSI	6/5/1996	PCBs	Total Aroclors	0.24	Monitoring well is not located within the groundwater surface water interface.
Queen St Dump	MW-140WT	IDW, RDW	6/5/1996	Semivolatiles	bis(2-Ethylhexyl)phthalate	12	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Queen St Dump	MW-146WT	GSI	7/28/1995	Inorganics	Cyanide, Total	11	Monitoring well is not located within the groundwater surface water interface.

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SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Queen St Dump	TW-203S1	IDW, RDW	5/23/1995	Inorganics-Filtered	Iron	16,500	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Queen St Dump	TW-203S2	GSI	5/24/1995	Inorganics-Filtered	Zinc	524	Monitoring well is not located within the groundwater surface water interface.
Queen St Dump	TW-203S2	IDW, RDW	5/24/1995	Inorganics-Filtered	Aluminum	745	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Queen St Dump	TW-203S2	IDW, RDW	5/24/1995	Inorganics-Filtered	Iron	49,200	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Queen St Dump	TW-203S2	RDW	5/24/1995	Inorganics-Filtered	Magnesium	708,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Queen St Dump	TW-203WT	GSI	2/3/1995	Inorganics-Filtered	Zinc	645	Monitoring well is not located within the groundwater surface water interface.
Queen St Dump	TW-203WT	GSI, IDW, RDW	2/3/1995	Inorganics-Filtered	Barium	2430	Temporary well which was dismissed as an anomaly because not detected in nearby permanent well and TW can not be effectively developed to remove soil particulates prior to sampling, not appropriate to compare unfiltered data to criteria (HHE Section p 4-10, 4-26 thru27).
Queen St Dump	TW-203WT	GCC, IDW, RDW, WS	2/3/1995	Semivolatiles	Benzo(b)fluoranthene	5.9 J	Temporary well which was dismissed as an anomaly because not detected in nearby permanent well and TW can not be effectively developed to remove soil particulates prior to sampling, not appropriate to compare unfiltered data to criteria (HHE Section p 4-10, 4-26 thru27).
Queen St Dump	TW-203WT	GCC, IDW, RDW, WS	2/3/1995	Semivolatiles	Benzo(g,h,i)perylene	2.1 J	Temporary well which was dismissed as an anomaly because not detected in nearby permanent well and TW can not be effectively developed to remove soil particulates prior to sampling, not appropriate to compare unfiltered data to criteria (HHE Section p 4-10, 4-26 thru27).
Queen St Dump	TW-203WT	GCC, IDW, RDW, WS	2/3/1995	Semivolatiles	Benzo(k)fluoranthene	2.9 J	Temporary well which was dismissed as an anomaly because not detected in nearby permanent well and TW can not be effectively developed to remove soil particulates prior to sampling, not appropriate to compare unfiltered data to criteria (HHE Section p 4-10, 4-26 thru27).
Queen St Dump	TW-203WT	GCC, IDW, RDW, WS	2/3/1995	Semivolatiles	Chrysene	7 J	Temporary well which was dismissed as an anomaly because not detected in nearby permanent well and TW can not be effectively developed to remove soil particulates prior to sampling, not appropriate to compare unfiltered data to criteria (HHE Section p 4-10, 4-26 thru27).
Queen St Dump	TW-203WT	GCC, IDW, RDW, WS	2/3/1995	Semivolatiles	Indeno(1,2,3-cd)pyrene	2.2 J	Temporary well which was dismissed as an anomaly because not detected in nearby permanent well and TW can not be effectively developed to remove soil particulates prior to sampling, not appropriate to compare unfiltered data to criteria (HHE Section p 4-10, 4-26 thru27).

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TABLE 2-3
SUMMARY OF SITE GROUNDWATER DATA THAT EXCEEDS GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Queen St Dump	TW-203WT	GCC, WS	2/3/1995	Semivolatiles	Benzo(a)pyrene	4.7 J	Temporary well which was dismissed as an anomaly because not detected in nearby permanent well and TW can not be effectively developed to remove soil particulates prior to sampling, not appropriate to compare unfiltered data to criteria (HHE Section p 4-10, 4-26 thru27).
Queen St Dump	TW-203WT	GSI	2/3/1995	Semivolatiles	Fluoranthene	12	Monitoring well is not located within the groundwater surface water interface.
Queen St Dump	TW-203WT	GSI	2/3/1995	Semivolatiles	Phenanthrene	8.6 J	Monitoring well is not located within the groundwater surface water interface.
Queen St Dump	TW-203WT	RDW	2/3/1995	Semivolatiles	Benzo(a)anthracene	5.3 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Queen St Dump	TW-205S1	GSI	2/7/1995	Inorganics-Filtered	Zinc	1,680	Monitoring well is not located within the groundwater surface water interface.
Queen St Dump	TW-205S1	IDW, RDW	2/7/1995	Inorganics-Filtered	Iron	27,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Queen St Dump	TW-205S1	IDW, RDW	2/7/1995	Semivolatiles	bis(2-Ethylhexyl)phthalate	12	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Queen St Dump	TW-205S2	GSI	2/7/1995	Inorganics-Filtered	Zinc	4,260	Monitoring well is not located within the groundwater surface water interface.
Queen St Dump	TW-205S2	IDW, RDW	2/7/1995	Inorganics-Filtered	Iron	17,300	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Queen St Dump	TW-205WT	GSI	2/6/1995	Inorganics-Filtered	Zinc	1,160	Monitoring well is not located within the groundwater surface water interface.
Queen St Dump	TW-205WT	IDW, RDW	2/6/1995	Inorganics-Filtered	Nickel	120	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Queen St Dump	TW-205WT	IDW, RDW	2/6/1995	Semivolatiles	bis(2-Ethylhexyl)phthalate	18	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Quench Pit	QPTW-13	IDW, RDW	4/12/1997	Inorganics-Filtered	Iron	14,500	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Quench Pit	QPTW-7	GSI, IDW, RDW	4/12/1997	Inorganics-Filtered	Arsenic	63.5	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Quench Pit	QPTW-7	IDW, RDW	4/12/1997	Inorganics-Filtered	Iron	20,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Quench Pit	QPTW-9	IDW, RDW	4/12/1997	Inorganics-Filtered	Iron	29,900	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Railyard	MW-141WT	GSI, RDW	7/28/1995	Inorganics-Filtered	Vanadium	21	Monitoring well is not located within the groundwater surface water interface and residential criteria do not apply to this area of the site.
Railyard	TW-201WT	GSI	2/6/1995	Inorganics	Cyanide, Total	6	Monitoring well is not located within the groundwater surface water interface.
River Berm	B-7BAUG	IDW, RDW	7/17/1995	Inorganics-Filtered	Aluminum	354	Restrictive Covenant prevents use of the groundwater as a drinking water source.

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
River Berm	B-7CAUG	GSI	7/17/1995	Inorganics	Cyanide, Total	38	Additional sampling showed concentrations below criteria.
River Berm	B-7CAUG	IDW, RDW	7/17/1995	Inorganics-Filtered	Aluminum	279	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm	B-7CAUG	IDW, RDW	6/11/1996	Inorganics-Filtered	Aluminum	332	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm	B-7R	GSI	7/17/1995	PCBs	Total Aroclors	0.34	Detected concentrations decreased as sampling methods were modified to decrease turbidity; well is part of GSI monitoring program.
River Berm	B-7R	IDW, RDW	6/13/1996	Inorganics	Aluminum	247	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm	B-7R	IDW, RDW	6/13/1996	Inorganics	Aluminum	312	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm	B-7R	GSI	3/5/1997	PCBs	Total Aroclors	0.25	Detected concentrations decreased as sampling methods were modified to decrease turbidity; well is part of GSI monitoring program.
River Berm	B-7R	GSI	3/5/1997	PCBs	Total Aroclors	0.27	Detected concentrations decreased as sampling methods were modified to decrease turbidity; well is part of GSI monitoring program.
River Berm	B-7R	GSI	9/2/1999	Inorganics-Filtered	Antimony	2.6	Additional sampling showed concentrations below criteria.
River Berm	B-7R	IDW, RDW	9/2/1999	Inorganics-Filtered	Lead	22	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm	B-7R	GSI, IDW, RDW	9/2/1999	PCBs	Total Aroclors	1.02	Detected concentrations decreased as sampling methods were modified to decrease turbidity; well is part of GSI monitoring program.
River Berm	B-7R	GSI	6/2/2004	PCBs	Total Aroclors	0.31	Monitoring well is part of GSI monitoring program.
River Berm	B-7R	GSI	8/23/2005	PCBs-Dissolved	Total Aroclors	0.31	Monitoring well is part of GSI monitoring program.
River Berm	B-7R	GSI	11/28/2007	Miscellaneous	Estimated Un-ionized Ammonia	122.4	Monitoring well is part of GSI monitoring program.
River Berm	B-7R	GSI	11/28/2007	PCBs-Dissolved	Total Aroclors	0.31	Monitoring well is part of GSI monitoring program.
River Berm	B-7R	GSI	6/3/2008	PCBs	Total Aroclors	0.3 [0.28]	Monitoring well is part of GSI monitoring program.
River Berm	MW-107S1	IDW, RDW	7/12/1995	Semivolatiles	bis(2-Ethylhexyl)phthalate	9	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm	MW-107S1	GSI	6/6/2008	Miscellaneous	Estimated Un-ionized Ammonia	86.4 J	Monitoring well is included in a GSI monitoring program.
River Berm	MW-107S1	GSI, IDW, RDW	6/6/2008	Miscellaneous	TDS	800000 J	Restrictive Covenant prevents use of the groundwater as a drinking water source and monitoring well is included in a GSI monitoring program.
River Berm	MW-107WT	IDW, RDW	7/12/1995	Inorganics	Aluminum	2,020	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm	MW-108S1	GSI	7/13/1995	PCBs	Total Aroclors	0.22	Additional sampling showed concentrations below criteria.

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SUMMARY OF SITE GROUNDWATER DATA THAT EXCEEDS GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
River Berm	MW-108S1	IDW, RDW	6/29/1999	Inorganics-Filtered	Beryllium	9.5	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm	MW-108S1	GSI	9/2/1999	Inorganics-Filtered	Antimony	2.8	Additional sampling showed concentrations below criteria.
River Berm	MW-108S1	GSI, IDW, RDW	6/3/2008	Miscellaneous	TDS	1100000	Restrictive Covenant prevents use of the groundwater as a drinking water source and monitoring well is included in a GSI monitoring program.
River Berm	MW-108S2	GSI	6/6/2008	Miscellaneous	Estimated Un-ionized Ammonia	252 J	Monitoring well is included in a GSI monitoring program.
River Berm	MW-108S2	GSI, IDW, RDW	6/6/2008	Miscellaneous	TDS	910000 J	Restrictive Covenant prevents use of the groundwater as a drinking water source and monitoring well is included in a GSI monitoring program.
River Berm	MW-108S4	GSI	7/13/1995	Inorganics-Filtered	Copper	31	Additional sampling showed concentrations below criteria.
River Berm	MW-108S4	IDW, RDW	6/8/1996	Semivolatiles	bis(2-Ethylhexyl)phthalate	15	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm	MW-108S4	GSI, IDW, RDW	5/21/2000	Inorganics	Thallium	3.8 B	Additional sampling showed concentrations below criteria.
River Berm	MW-108WT	GSI, IDW, RDW	7/13/1995	Inorganics	Lead	41.5	Additional sampling showed concentrations below criteria.
River Berm	MW-108WT	GSI, IDW, RDW	7/13/1995	Inorganics	Manganese	4,800	Additional sampling showed concentrations below criteria.
River Berm	MW-108WT	IDW, RDW	7/13/1995	Inorganics	Aluminum	6,930	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm	MW-108WT	IDW, RDW	7/13/1995	Inorganics	Iron	58,300	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm	MW-108WT	GSI, IDW, RDW	5/21/2000	Inorganics-Filtered	Thallium	5.3 B	Additional sampling showed concentrations below criteria.
River Berm	MW-109WT	GSI	7/13/1995	Inorganics	Chromium (Total)	60 J	Additional sampling showed concentrations below criteria.
River Berm	MW-109WT	GSI	7/13/1995	Inorganics	Copper	42	Additional sampling showed concentrations below criteria.
River Berm	MW-109WT	GSI, IDW, RDW	7/13/1995	Inorganics	Lead	54.1	Additional sampling showed concentrations below criteria.
River Berm	MW-109WT	GSI, RDW	7/13/1995	Inorganics	Vanadium	31	Additional sampling showed concentrations below criteria.
River Berm	MW-109WT	IDW, RDW	7/13/1995	Inorganics	Aluminum	16,400	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm	MW-109WT	IDW, RDW	7/13/1995	Inorganics	Iron	29,900	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm	MW-109WT	IDW, RDW	7/13/1995	Inorganics	Manganese	2,830	Restrictive Covenant prevents use of the groundwater as a drinking water source.

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SUMMARY OF SITE GROUNDWATER DATA THAT EXCEEDS GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
River Berm	MW-109WT	IDW, RDW	7/13/1995	Inorganics-Filtered	Lead	14.6	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm	MW-109WT	IDW, RDW	7/13/1995	Semivolatiles	bis(2-Ethylhexyl)phthalate	12	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm	MW-109WT	GSI	5/21/2000	Inorganics-Filtered	Antimony	2.2 B	Additional sampling showed concentrations below criteria.
River Berm	MW-110WT	GSI	3/6/1997	PCBs	Total Aroclors	0.23	Detected concentrations decreased as sampling methods were modified to decrease turbidity; well is part of GSI monitoring program.
River Berm	MW-110WTR	IDW, RDW	4/2/2008	Inorganics	Manganese	2680	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm	MW-110WTR	GSI, IDW, RDW	4/2/2008	Miscellaneous	TDS	1500000	Restrictive Covenant prevents use of the groundwater as a drinking water source; well is part of GSI monitoring program
River Berm	MW-111S1	IDW, RDW	6/12/1996	Semivolatiles	bis(2-Ethylhexyl)phthalate	8.9	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm	MW-111S2	GSI	6/6/2008	Miscellaneous	Estimated Un-ionized Ammonia	100.8 J	Monitoring well is part of GSI monitoring program
River Berm	MW-111S2	GSI, IDW, RDW	6/6/2008	Miscellaneous	TDS	670000 J	Restrictive Covenant prevents use of the groundwater as a drinking water source; well is part of GSI monitoring program
River Berm	MW-111S3	IDW, RDW	6/10/1996	Inorganics-Filtered	Aluminum	1,300	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm	MW-111S3	GSI, RDW	6/10/1996	Semivolatiles	Phenol	6,200 D	Additional sampling showed concentrations below criteria.
River Berm	MW-111S4	GSI	7/14/1995	PCBs	Total Aroclors	0.21	Additional sampling showed concentrations below criteria.
River Berm	MW-111S4	GSI	7/2/1999	Inorganics-Filtered	Antimony	2.1	Additional sampling showed concentrations below criteria.
River Berm	MW-111S4	GSI, IDW, RDW	9/2/1999	Miscellaneous	Chloride	1,200,000 D	
River Berm	MW-111WT	GSI	7/14/1995	Inorganics	Copper	39.6	Additional sampling showed concentrations below criteria.
River Berm	MW-111WT	GSI, IDW, RDW	7/14/1995	Inorganics	Chromium (Total)	117 J	Additional sampling showed concentrations below criteria.
River Berm	MW-111WT	GSI, RDW	7/14/1995	Inorganics	Vanadium	45.2	Additional sampling showed concentrations below criteria.
River Berm	MW-111WT	IDW, RDW	7/14/1995	Inorganics	Aluminum	19,700	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm	MW-111WT	IDW, RDW	7/14/1995	Inorganics	Iron	54,600	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm	MW-111WT	IDW, RDW	7/14/1995	Inorganics	Lead	27.8	Restrictive Covenant prevents use of the groundwater as a drinking water source.

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SUMMARY OF SITE GROUNDWATER DATA THAT EXCEEDS GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
River Berm	MW-111WT	IDW, RDW	7/14/1995	Inorganics	Manganese	3,740	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm	MW-111WT	GSI	7/14/1995	PCBs	Total Aroclors	0.41	Detected concentrations decreased as sampling methods were modified to decrease turbidity; well is part of GSI monitoring program.
River Berm	MW-111WT	GSI, IDW, RDW	7/14/1995	Semivolatiles	bis(2-Ethylhexyl)phthalate	54	Additional sampling showed concentrations below criteria.
River Berm	MW-111WT	GSI, IDW, RDW	6/12/1996	Inorganics	Manganese	4,440	Detected concentrations decreased as sampling methods were modified to decrease turbidity; well is part of GSI monitoring program.
River Berm	MW-111WT	IDW, RDW	6/12/1996	Inorganics	Iron	40,200 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm	MW-111WT	IDW, RDW	6/12/1996	Inorganics-Filtered	Iron	21,400 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm	MW-111WT	IDW, RDW	6/12/1996	Inorganics-Filtered	Manganese	3,910	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm	MW-111WT	GSI	3/7/1997	PCBs	Total Aroclors	0.28	Detected concentrations decreased as sampling methods were modified to decrease turbidity; well is part of GSI monitoring program.
River Berm	MW-111WT	IDW, RDW	6/30/1999	Inorganics	Iron	18,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm	MW-111WT	IDW, RDW	9/2/1999	Inorganics-Filtered	Iron	16,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm	MW-111WT	IDW, RDW	9/2/1999	Inorganics-Filtered	Manganese	2,200	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm	MW-111WT	GSI, IDW, RDW	5/19/2000	Inorganics	Thallium	7.9 B	Additional sampling showed concentrations below criteria.
River Berm	MW-111WT	IDW	5/19/2000	Inorganics	Iron	20,000	Industrial drinking water is not a complete exposure pathway.
River Berm	MW-111WT	IDW, RDW	5/19/2000	Inorganics	Iron	18,300	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm	MW-111WT	IDW, RDW	5/19/2000	Inorganics	Manganese	2,500	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm	MW-111WT	IDW, RDW	5/19/2000	Inorganics	Manganese	2,560	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm	MW-111WT	RDW	5/19/2000	Inorganics	Iron	20,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm	MW-111WT	GSI, IDW, RDW	5/19/2000	Inorganics-Filtered	Thallium	7.6 B	Additional sampling showed concentrations below criteria.
River Berm	MW-111WT	IDW, RDW	5/19/2000	Inorganics-Filtered	Iron	14,400	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm	MW-111WT	IDW, RDW	5/19/2000	Inorganics-Filtered	Manganese	2,340	Restrictive Covenant prevents use of the groundwater as a drinking water source.

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
River Berm	MW-111WT	GSI, IDW, RDW	4/2/2008	Miscellaneous	TDS	580000 [590000]	Restrictive Covenant prevents use of the groundwater as a drinking water source; well is part of GSI monitoring program
River Berm	MW-112WT	GSI	7/17/1995	Inorganics	Chromium (Total)	81	Additional sampling showed concentrations below criteria.
River Berm	MW-112WT	GSI	7/17/1995	Inorganics	Copper	54	Additional sampling showed concentrations below criteria.
River Berm	MW-112WT	GSI, IDW, RDW	7/17/1995	Inorganics	Lead	47.7	Additional sampling showed concentrations below criteria.
River Berm	MW-112WT	GSI, IDW, RDW	7/17/1995	Inorganics	Manganese	4,420	Detected concentrations decreased as sampling methods were modified to decrease turbidity; well is part of GSI monitoring program.
River Berm	MW-112WT	GSI, RDW	7/17/1995	Inorganics	Vanadium	26	Additional sampling showed concentrations below criteria.
River Berm	MW-112WT	IDW, RDW	7/17/1995	Inorganics	Aluminum	11,500	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm	MW-112WT	IDW, RDW	7/17/1995	Inorganics	Iron	69,400 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm	MW-112WT	GCC, GSI, IDW, RDW	7/17/1995	PCBs	Total Aroclors	5.3	More recent data (February 2000 and March 2000) showed not exceedences (HHE Section 4-27).
River Berm	MW-112WT	GSI	6/12/1996	PCBs	Total Aroclors	0.29	Detected concentrations decreased as sampling methods were modified to decrease turbidity; well is part of GSI monitoring program.
River Berm	MW-112WT	GSI	9/27/1996	PCBs	Total Aroclors	0.28	Detected concentrations decreased as sampling methods were modified to decrease turbidity; well is part of GSI monitoring program.
River Berm	MW-112WT	IDW, RDW	6/30/1999	Inorganics-Filtered	Lead	8.7	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm	MW-112WT	GSI, IDW, RDW	6/30/1999	PCBs	Total Aroclors	0.58	Detected concentrations decreased as sampling methods were modified to decrease turbidity; well is part of GSI monitoring program.
River Berm	MW-112WT	GSI	9/2/1999	Inorganics-Filtered	Antimony	2.9	Additional sampling showed concentrations below criteria.
River Berm	MW-112WT	GSI, IDW, RDW	5/20/2000	Inorganics	Thallium	4 B	Additional sampling showed concentrations below criteria.
River Berm	MW-112WT	GSI, IDW, RDW	5/20/2000	Inorganics-Filtered	Thallium	5.9 B	Detected concentrations decreased as sampling methods were modified to decrease turbidity; well is part of GSI monitoring program.
River Berm	MW-112WT-A	GSI, IDW, RDW	6/30/1999	PCBs-Filtered	Total Aroclors	0.53	Detected concentrations decreased as sampling methods were modified to decrease turbidity; well is part of GSI monitoring program.

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
River Berm	MW-112WT-C	GSI	6/30/1999	PCBs-Filtered	Total Aroclors	0.42	Detected concentrations decreased as sampling methods were modified to decrease turbidity; well is part of GSI monitoring program.
River Berm	MW-113WT	IDW, RDW	7/17/1995	Inorganics	Aluminum	2,570 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm	MW-113WT	IDW, RDW	7/17/1995	Inorganics	Lead	16.7	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm	MW-113WT	IDW, RDW	7/17/1995	Inorganics-Filtered	Lead	11	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm	MW-113WT	IDW, RDW	6/13/1996	Semivolatiles	bis(2-Ethylhexyl)phthalate	9	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm	MW-114S2	GSI	6/6/2008	Miscellaneous	Estimated Un-Ionized Ammonia	180 J	Monitoring well is part of GSI monitoring program.
River Berm	MW-114S2	GSI, IDW, RDW	6/6/2008	Miscellaneous	TDS	560000 J	Restrictive Covenant prevents use of the groundwater as a drinking water source; well is part of GSI monitoring program
River Berm	MW-114WT	IDW, RDW	6/8/1996	Inorganics	Manganese	2260	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm	MW-114WT	GSI	3/6/1997	PCBs	Total Aroclors	0.41	Detected concentrations decreased as sampling methods were modified to decrease turbidity; well is part of GSI monitoring program.
River Berm	MW-114WT	GSI, IDW, RDW	5/22/2000	Inorganics	Thallium	5.3 B	Additional sampling showed concentrations below criteria.
River Berm	MW-149WT	GSI, IDW, RDW	6/12/1996	Inorganics-Filtered	Arsenic	230	Detected concentrations decreased as sampling methods were modified to decrease turbidity; well is part of GSI monitoring program.
River Berm	MW-149WT	IDW, RDW	6/12/1996	Inorganics-Filtered	Iron	20,300 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm	MW-149WT	IDW, RDW	6/12/1996	Inorganics-Filtered	Manganese	3,180	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm	MW-149WT	GSI, IDW, RDW	5/21/2000	Inorganics	Thallium	6.7 B	Detected concentrations decreased as sampling methods were modified to decrease turbidity; well is part of GSI monitoring program.
River Berm	MW-149WT	GSI, IDW, RDW	5/21/2000	Inorganics-Filtered	Thallium	6.4 B	Detected concentrations decreased as sampling methods were modified to decrease turbidity; well is part of GSI monitoring program.
River Berm	MW-149WT	GSI, IDW, RDW	6/2/2004	Inorganics	Arsenic	223	Detected concentrations decreased as sampling methods were modified to decrease turbidity; well is part of GSI monitoring program.
River Berm	MW-149WT	GSI, IDW, RDW	6/2/2004	Inorganics	Arsenic	227	Detected concentrations decreased as sampling methods were modified to decrease turbidity; well is part of GSI monitoring program.

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TABLE 2-3
SUMMARY OF SITE GROUNDWATER DATA THAT EXCEEDS GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
River Berm	MW-149WT	GSI, IDW, RDW	6/2/2004	Inorganics	Manganese	4,440	Detected concentrations decreased as sampling methods were modified to decrease turbidity; well is part of GSI monitoring program.
River Berm	MW-149WT	GSI, IDW, RDW	6/2/2004	Inorganics	Manganese	4,560	Detected concentrations decreased as sampling methods were modified to decrease turbidity; well is part of GSI monitoring program.
River Berm	MW-149WT	GSI, IDW, RDW	6/2/2004	Inorganics	Arsenic	223 [227]	Restrictive Covenant prevents use of the groundwater as a drinking water source and monitoring well is included in a GSI monitoring program.
River Berm	MW-149WT	GSI, IDW, RDW	6/2/2004	Inorganics	Manganese	4440 [4560]	Restrictive Covenant prevents use of the groundwater as a drinking water source and monitoring well is included in a GSI monitoring program.
River Berm	MW-149WT	IDW, RDW	4/3/2008	Inorganics	Arsenic	93.6	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm	MW-149WT	GSI	4/3/2008	Miscellaneous	Estimated Un-ionized Ammonia	57.6	Monitoring well is part of GSI monitoring program.
River Berm	MW-183WT	GSI, IDW, RDW	3/12/2008	Miscellaneous	TDS	520000	Restrictive Covenant prevents use of the groundwater as a drinking water source and monitoring well is included in a GSI monitoring program.
River Berm	MW-6B	IDW, RDW	7/13/1995	Inorganics-Filtered	Aluminum	2,190	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm	MW-6B	GSI, IDW, RDW	7/13/1995	Inorganics-Filtered	Chromium (Total)	107	Restrictive Covenant prevents use of the groundwater as a drinking water source. Monitoring well is not located within the groundwater surface water interface.
River Berm	MW-6B	GSI, IDW, RDW	5/20/2000	Inorganics	Thallium	6.1B	Restrictive Covenant prevents use of the groundwater as a drinking water source. Monitoring well is not located within the groundwater surface water interface.
River Berm	MW-6CAUG	GSI	7/13/1995	Volatiles	Xylenes, Total	56 J	Monitoring well is not located within the groundwater surface water interface.
River Berm	MW-6CAUG	IDW, RDW	7/13/1995	Volatiles	Benzene	6 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm	TW-207WT	GSI, IDW, RDW	2/7/1995	Inorganics-Filtered	Arsenic	154	Additional sampling showed concentrations below criteria.
River Berm	TW-207WT	IDW, RDW	2/7/1995	Inorganics-Filtered	Manganese	3,300	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm	TW-207WT	GSI	2/7/1995	PCBs	Total Aroclors	0.362	Additional sampling showed concentrations below criteria.
River Berm	TW-208S1	GSI	2/14/1995	Inorganics-Filtered	Zinc	481	Additional sampling showed concentrations below criteria.
River Berm	TW-209S1	GSI	2/14/1995	Inorganics-Filtered	Zinc	749	Additional sampling showed concentrations below criteria.
River Berm	TW-209S1	IDW, RDW	2/14/1995	Semivolatiles	bis(2-Ethylhexyl)phthalate	6.6	Restrictive Covenant prevents use of the groundwater as a drinking water source.

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TABLE 2-3
SUMMARY OF SITE GROUNDWATER DATA THAT EXCEEDS GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
River Berm	TW-209WT	GSI, IDW, RDW	2/14/1995	Semivolatiles	bis(2-Ethylhexyl)phthalate	49	Additional sampling showed concentrations below criteria.
River Berm	TW-210S1	GSI	2/15/1995	Inorganics-Filtered	Zinc	286	Additional sampling showed concentrations below criteria.
River Berm	TW-210S1	GSI, IDW, RDW	2/15/1995	Semivolatiles	bis(2-Ethylhexyl)phthalate	34	Additional sampling showed concentrations below criteria.
River Berm	TW-210S2	GSI	2/15/1995	Inorganics-Filtered	Zinc	315	Additional sampling showed concentrations below criteria.
River Berm	TW-211S1	GSI	2/15/1995	Inorganics-Filtered	Zinc	328	Additional sampling showed concentrations below criteria.
River Berm	TW-211S1	GSI	2/15/1995	Inorganics-Filtered	Zinc	356	Additional sampling showed concentrations below criteria.
River Berm	TW-211S2	GSI	2/16/1995	Inorganics-Filtered	Zinc	909	Additional sampling showed concentrations below criteria.
River Berm	TW-211S2	IDW, RDW	2/16/1995	Semivolatiles	bis(2-Ethylhexyl)phthalate	16	Restrictive Covenant prevents use of the groundwater as a drinking water source.
River Berm	TW-211WT	GSI, IDW, RDW	2/16/1995	PCBs	Total Aroclors	1.5	Additional sampling showed concentrations below criteria.
River Berm	TW-212S2	GSI	2/16/1995	Inorganics-Filtered	Zinc	301 J	Additional sampling showed concentrations below criteria.
River Berm	TW-212WT	GCC, GSI, IDW, IGVIA, RDW, RGVIA, WS	2/16/1995	PCBs	Total Aroclors	62	Temporary well which was replaced with MW-112 and no PCBS were detected at concentrations exceeding criteria (HHE Section 4-7); residential standards not applicable to the site (HHE Section 4-3)
River Berm	TW-213WT	GCC, GSI, IDW, RDW	2/17/1995	PCBs	Total Aroclors	21.1	Not appropriate to use unfiltered data for comparison with standard (HHE Section 4-13; RI Table 4-10).
Secondary Settling Pond	MW-115S1	IDW, RDW	7/15/1995	Semivolatiles	bis(2-Ethylhexyl)phthalate	6.4	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Secondary Settling Pond	MW-115S3	GSI	7/15/1995	Inorganics-Filtered	Copper	39	Monitoring well is not located within the groundwater surface water interface.
Secondary Settling Pond	MW-115S3	IDW, RDW	7/15/1995	Inorganics-Filtered	Aluminum	478	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Secondary Settling Pond	TW-214S2	GSI	1/27/1995	Inorganics-Filtered	Zinc	492	Monitoring well is not located within the groundwater surface water interface.
Secondary Settling Pond	TW-214S2	GSI, IDW, RDW	1/27/1995	Semivolatiles	bis(2-Ethylhexyl)phthalate	40	Monitoring well is not located within the groundwater surface water interface and restrictive covenant prevents the use of groundwater as a drinking water source.
Secondary Settling Pond	TW-214WT	GSI	1/26/1995	Inorganics-Filtered	Zinc	586	Monitoring well is not located within the groundwater surface water interface.
Secondary Settling Pond	TW-215S1	GSI	1/27/1995	Inorganics-Filtered	Zinc	586	Monitoring well is not located within the groundwater surface water interface.
Secondary Settling Pond	TW-215S2	GSI	1/27/1995	Inorganics-Filtered	Zinc	319	Monitoring well is not located within the groundwater surface water interface.

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TABLE 2-3
SUMMARY OF SITE GROUNDWATER DATA THAT EXCEEDS GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area	Location ID	Generic MDEQ Criteria Exceeded	Samples Collected On:	Parameter Group	Analyte	Detected Concentration (ug/L)	Comments
Secondary Settling Pond	TW-215S3	GSI	1/27/1995	Inorganics-Filtered	Zinc	925	Monitoring well is not located within the groundwater surface water interface.
Secondary Settling Pond	TW-215WT	GSI, IDW, RDW	1/26/1995	PCBs	Total Aroclors	1.9	Monitoring well is not located within the groundwater surface water interface.
South of Green Point Landfill	MW-3B	IDW, RDW	7/27/1995	Inorganics-Filtered	Iron	14,000	Restrictive Covenant prevents use of the groundwater as a drinking water source.
South of Unpaved Area	B-2R	GSI	7/29/1995	Inorganics	Cyanide, Total	7	Monitoring well is not located within the groundwater surface water interface.
South of Unpaved Area	B-2R	IDW, RDW	7/29/1995	Semivolatiles	bis(2-Ethylhexyl)phthalate	19 J	Restrictive Covenant prevents use of the groundwater as a drinking water source.
Tank 8 and 9	MW-137WT	GSI, RDW	7/28/1995	Inorganics-Filtered	Vanadium	34	Monitoring well is not located within the groundwater surface water interface and residential criteria do not apply to this area of the site.
Tank 8 and 9	MW-138WT	IDW, RDW	6/10/1996	Inorganics	Iron	29,790	Restrictive Covenant prevents use of the groundwater as a drinking water source.
UST #8	TW-231WT	IDW, RDW	1/31/1995	Semivolatiles	bis(2-Ethylhexyl)phthalate	29	Restrictive Covenant prevents use of the groundwater as a drinking water source.
West of Main Plant	MW-139WT	GSI	6/13/1996	Inorganics-Filtered	Copper	25.5	Monitoring well is not located within the groundwater surface water interface.
West of Main Plant	MW-139WT	IDW, RDW	6/13/1996	Semivolatiles	bis(2-Ethylhexyl)phthalate	7	Restrictive Covenant prevents use of the groundwater as a drinking water source.

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SUMMARY OF SITE GROUNDWATER DATA THAT EXCEEDS GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Notes:

RI = Remedial Investigation Report, BBL 2001.
HHE = Human Health Evaluation, BBL 2001.
RDW = Residential Drinking Water criteria, updated January 2006.
IDW = Industrial Drinking Water criteria, updated January 2006.
GAI = Groundwater Acute Inhalation Screening Level, updated January 2006.
GSI = Groundwater/Surface Water Interaction criteria, updated January 2006.
GCC = Groundwater Contact criteria, updated January 2006.
RGVIA = Residential & Commercial I Groundwater Volatilization to Indoor Air Inhalation criteria, updated January 2006.
IGVIA = Industrial & Commercial II, III, & IV Groundwater Volatilization to Indoor Air Inhalation criteria, updated January 2006
WS = Water Solubility, updated January 2006.
J = The compound/constituent was positively identified; however, the associated numerical value is an estimated concentration only.
B = (Organic) The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
(Inorganic) The analyte has been positively identified. The concentration is between the instrument detection limit and the required reporting limit.
D = Concentration is based on a diluted sample analysis.

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TABLE 2-4
LNAPL ASSESSMENT AREA
ORGANIC COMPOUNDS SOIL ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth(feet): Date Collected:	Units	SB-325 8 - 10 06/14/95	SB-362 0 - 2 09/28/95	SB-362 4 - 6 09/28/95	SB-362 8 - 10 09/28/95	SB-363 0 - 2 09/28/95	SB-363 4 - 6 09/28/95	SB-363 8 - 10 09/28/95	UP-B1 07/14/98	UP-B2 07/14/98	UP-S1 07/14/98	UP-S2 07/14/98	UP-S3 07/14/98	US-1 0 - 1 06/12/95	US-2 0 - 1 06/12/95	US-3 0 - 1 06/12/95	US-4 0 - 1 06/12/95
Volatiles																	
1,1,1-Trichloroethane	mg/kg	0.006 UJ	NA	NA	0.031 U	0.0056 U	0.0055 U	0.0061 U	NA	NA	NA	NA	NA	0.0063 U	0.0054 U	0.0053 U	0.0053 U
1,1,2,2-Tetrachloroethane	mg/kg	0.006 UJ	NA	NA	0.031 U	0.0056 UJ	0.0055 U	0.0061 U	NA	NA	NA	NA	NA	0.0063 U	0.0054 U	0.0053 U	0.0053 U
1,1,2-Trichloroethane	mg/kg	0.006 UJ	NA	NA	0.031 U	0.0056 U	0.0055 U	0.0061 U	NA	NA	NA	NA	NA	0.0063 U	0.0054 U	0.0053 U	0.0053 U
1,1-Dichloroethane	mg/kg	0.006 UJ	NA	NA	0.031 U	0.0056 U	0.0055 U	0.0061 U	NA	NA	NA	NA	NA	0.0063 U	0.0054 U	0.0053 U	0.0053 U
1,1-Dichloroethene	mg/kg	0.006 UJ	NA	NA	0.031 U	0.0056 U	0.0055 U	0.0061 U	NA	NA	NA	NA	NA	0.0063 U	0.0054 U	0.0053 U	0.0053 U
1,2-Dichloroethane	mg/kg	0.006 UJ	NA	NA	0.031 U	0.0056 U	0.0055 U	0.0061 U	NA	NA	NA	NA	NA	0.0063 U	0.0054 U	0.0053 U	0.0053 U
1,2-Dichloroethene, Total	mg/kg	0.006 UJ	NA	NA	0.031 U	0.073 J	0.0049 J	0.0061 U	NA	NA	NA	NA	NA	0.0063 U	0.0054 U	0.0053 U	0.0053 U
1,2-Dichloropropane	mg/kg	0.006 UJ	NA	NA	0.031 U	0.0056 U	0.0055 U	0.0061 U	NA	NA	NA	NA	NA	0.0063 U	0.0054 U	0.0053 U	0.0053 U
2-Butanone	mg/kg	0.013 J	NA	NA	0.08 J	0.0034 J	0.055 U	0.061 U	NA	NA	NA	NA	NA	0.0094 J	0.01 J	0.006 J	0.053 U
2-Hexanone	mg/kg	0.06 UJ	NA	NA	0.31 U	0.056 UJ	0.055 U	0.061 U	NA	NA	NA	NA	NA	0.063 U	0.054 U	0.053 U	0.053 U
4-Methyl-2-pentanone	mg/kg	0.06 UJ	NA	NA	0.31 U	0.056 UJ	0.055 U	0.061 U	NA	NA	NA	NA	NA	0.063 U	0.054 U	0.053 U	0.053 U
Acetone	mg/kg	0.073 J	NA	NA	0.3 J	0.1 J	0.038 J	0.061 U	NA	NA	NA	NA	NA	0.052 J	0.066 J	0.039 J	0.053 UJ
Benzene	mg/kg	0.067 J	NA	NA	0.031 U	0.0026 J	0.0055 U	0.0075	NA	NA	NA	NA	NA	0.0063 U	0.0054 U	0.0053 U	0.0053 U
Bromodichloromethane	mg/kg	0.006 UJ	NA	NA	0.031 U	0.0056 U	0.0055 U	0.0061 U	NA	NA	NA	NA	NA	0.0063 U	0.0054 U	0.0053 U	0.0053 U
Bromoform	mg/kg	0.006 UJ	NA	NA	0.031 U	0.0056 U	0.0055 U	0.0061 U	NA	NA	NA	NA	NA	0.0063 U	0.0054 U	0.0053 U	0.0053 U
Bromomethane	mg/kg	0.006 UJ	NA	NA	0.031 U	0.0056 U	0.0055 U	0.0061 U	NA	NA	NA	NA	NA	0.0063 U	0.0054 U	0.0053 U	0.0053 U
Carbon disulfide	mg/kg	0.006 UJ	NA	NA	0.031 U	0.0043 J	0.0055 U	0.0061 U	NA	NA	NA	NA	NA	0.0063 U	0.0054 U	0.0053 U	0.0053 U
Carbon tetrachloride	mg/kg	0.006 UJ	NA	NA	0.031 U	0.0056 U	0.0055 U	0.0061 U	NA	NA	NA	NA	NA	0.0063 U	0.0054 U	0.0053 U	0.0053 U
Chlorobenzene	mg/kg	0.006 UJ	NA	NA	0.031 U	0.0056 UJ	0.0055 U	0.0061 U	NA	NA	NA	NA	NA	0.0063 U	0.0054 U	0.0053 U	0.0053 U
Chlorodibromomethane	mg/kg	0.006 UJ	NA	NA	0.031 U	0.0056 U	0.0055 U	0.0061 U	NA	NA	NA	NA	NA	0.0063 U	0.0054 U	0.0053 U	0.0053 U
Chloroethane	mg/kg	0.006 UJ	NA	NA	0.031 U	0.0056 U	0.0055 U	0.0061 U	NA	NA	NA	NA	NA	0.0063 U	0.0054 U	0.0053 U	0.0053 UJ
Chloroform	mg/kg	0.006 UJ	NA	NA	0.031 U	0.0056 U	0.0055 U	0.0061 U	NA	NA	NA	NA	NA	0.0063 U	0.0054 U	0.0053 U	0.0053 U
Chloromethane	mg/kg	0.006 UJ	NA	NA	0.031 U	0.0056 U	0.0055 U	0.0061 U	NA	NA	NA	NA	NA	0.0063 UJ	0.0054 UJ	0.0053 UJ	0.0053 UJ
cis-1,3-Dichloropropene	mg/kg	0.006 UJ	NA	NA	0.031 U	0.0056 U	0.0055 U	0.0061 U	NA	NA	NA	NA	NA	0.0063 U	0.0054 U	0.0053 U	0.0053 U
Ethylbenzene	mg/kg	0.027 J	NA	NA	0.031 U	0.0047 J	0.0045 J	0.014	NA	NA	NA	NA	NA	0.0063 U	0.0054 U	0.0053 U	0.0053 U
Methylene chloride	mg/kg	0.006 UJ	NA	NA	0.031 U	0.0056 U	0.0055 U	0.0061 U	NA	NA	NA	NA	NA	0.0039 U	0.005 U	0.0054 U	0.014 UJ
Styrene	mg/kg	0.063 J	NA	NA	0.031 U	0.0056 UJ	0.0055 U	0.0093	NA	NA	NA	NA	NA	0.0063 U	0.0054 U	0.0053 U	0.0053 U
Tetrachloroethene	mg/kg	0.006 UJ	NA	NA	0.031 U	0.0056 UJ	0.0055 U	0.0061 U	NA	NA	NA	NA	NA	0.0063 U	0.0054 U	0.0053 U	0.0053 U
Toluene	mg/kg	0.1 J	NA	NA	0.017 J	0.074 J	0.083 J	0.042	NA	NA	NA	NA	NA	0.017	0.018	0.011 U	0.0064 UJ
trans-1,2-Dichloroethene	mg/kg	0.006 UJ	NA	NA	0.031 U	0.0056 U	0.0055 U	0.0061 U	NA	NA	NA	NA	NA	0.0063 U	0.0054 U	0.0053 U	0.0053 U
trans-1,3-Dichloropropene	mg/kg	0.006 UJ	NA	NA	0.031 U	0.0056 U	0.0055 U	0.0061 U	NA	NA	NA	NA	NA	0.0063 U	0.0054 U	0.0053 U	0.0053 U
Trichloroethene	mg/kg	0.006 UJ	NA	NA	0.031 U	0.009 J	0.0055 U	0.0061 U	NA	NA	NA	NA	NA	0.0063 U	0.0054 U	0.0053 U	0.0053 U
Vinyl chloride	mg/kg	0.006 UJ	NA	NA	0.031 U	0.0056 U	0.0055 U	0.0061 U	NA	NA	NA	NA	NA	0.0063 U	0.0054 U	0.0053 U	0.0053 U
Xylenes, Total	mg/kg	0.072 J	NA	NA	0.097	0.017 J	0.02 J	0.033	NA	NA	NA	NA	NA	0.0063 U	0.0054 U	0.0053 U	0.0053 U
Semivolatiles																	
1,2,4-Trichlorobenzene	mg/kg	16 U	0.77 U	0.72 U	0.21 U	1.8 U	1.8 U	2 U	NA	NA	NA	NA	NA	0.83 U	0.44 U	0.17 U	0.17 U
1,2-Dichlorobenzene	mg/kg	0.006 UJ	0.0059 U	0.011 U	0.031 U	0.0056 U	0.0055 U	0.0061 U	NA	NA	NA	NA	NA	0.0063 U	0.0054 U	0.0053 U	0.0053 U
1,3-Dichlorobenzene	mg/kg	0.006 UJ	0.0059 U	0.011 U	0.031 U	0.0056 U	0.0055 U	0.0061 U	NA	NA	NA	NA	NA	0.0063 U	0.0054 U	0.0053 U	0.0053 U
1,4-Dichlorobenzene	mg/kg	0.006 UJ	0.0059 U	0.011 U	0.031 U	0.0056 U	0.0055 U	0.0061 U	NA	NA	NA	NA	NA	0.0063 U	0.0054 U	0.0053 U	0.0053 U
2,2'-oxybis(dichloropropane)	mg/kg	16 U	0.77 U	0.72 U	0.21 U	1.8 U	1.8 U	2 U	NA	NA	NA	NA	NA	0.83 U	0.44 U	0.17 U	0.17 U
2,4,5-Trichlorophenol	mg/kg	16 U	0.77 UJ	0.72 U	0.21 U	1.8 U	1.8 U	2 U	NA	NA	NA	NA	NA	R	R	R	0.17 U
2,4,6-Trichlorophenol	mg/kg	16 U	0.77 UJ	0.72 U	0.21 U	1.8 U	1.8 U	2 U	NA	NA	NA	NA	NA	R	R	R	0.17 U
2,4-Dichlorophenol	mg/kg	16 U	0.77 U	0.72 U	0.21 U	1.8 U	1.8 U	2 U	NA	NA	NA	NA	NA	R	0.44 U	R	0.17 U
2,4-Dimethylphenol	mg/kg	16 U	0.77 UJ	0.72 U	0.21 U	1.8 U	1.8 U	2 U	NA	NA	NA	NA	NA	R	R	R	0.17 U
2,4-Dinitrophenol	mg/kg	79 U	3.8 UJ	3.5 U	1 U	8.9 U	8.8 U	9.8 U	NA	NA	NA	NA	NA	R	R	R	0.84 U
2,4-Dinitrotoluene	mg/kg	16 U	0.77 U	0.72 U	0.21 U	1.8 U	1.8 U	2 U	NA	NA	NA	NA	NA	0.83 U	0.44 U	0.17 U	0.17 U
2,6-Dinitrotoluene	mg/kg	16 U	0.77 U	0.72 U	0.21 U	1.8 U	1.8 U	2 U	NA	NA	NA	NA	NA	0.83 U	0.44 U	0.17 U	0.17 U
2-Chloronaphthalene	mg/kg	16 U	0.77 U	0.72 U	0.21 U	1.8 U	1.8 U	2 U	NA	NA	NA	NA	NA	0.83 U	0.44 U	0.17 U	0.17 U
2-Chlorophenol	mg/kg	16 U	0.77 U	0.72 U	0.21 U	1.8 U	1.8 U	2 U	NA	NA	NA	NA	NA	R	R	R	0.17 U
2-Methylnaphthalene	mg/kg	16 U	0.77 U	0.72 U	0.1 J	1.8 U	1.8 U	0.35 J	NA	NA	NA	NA	NA	0.12 J	0.082 J	0.16 J	0.1 J
2-Methylphenol	mg/kg	16 U	0.77 UJ	0.72 U	0.21 U	1.8 U	1.8 U	2 U	NA	NA	NA	NA	NA	R	R	R	0.17 U
2-Nitroaniline	mg/kg	79 U	3.8 U	3.5 U	1 U	8.9 U	8.8 U	9.8 U	NA	NA	NA	NA	NA	4 U	2.2 U	0.84 U	0.84 U
2-Nitrophenol	mg/kg	16 U	0.77 UJ	0.72 U	0.21 U	1.8 U	1.8 U	2 U	NA	NA	NA	NA	NA	R	R	R	0.17 U

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TABLE 2-4
LNAPL ASSESSMENT AREA
ORGANIC COMPOUNDS SOIL ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth(feet): / Date Collected:	Units	SB-325 8 - 10 06/14/95	SB-362 0 - 2 09/28/95	SB-362 4 - 6 09/28/95	SB-362 8 - 10 09/28/95	SB-363 0 - 2 09/28/95	SB-363 4 - 6 09/28/95	SB-363 8 - 10 09/28/95	UP-B1 07/14/98	UP-B2 07/14/98	UP-S1 07/14/98	UP-S2 07/14/98	UP-S3 07/14/98	US-1 0 - 1 06/12/95	US-2 0 - 1 06/12/95	US-3 0 - 1 06/12/95	US-4 0 - 1 06/12/95
Semivolatiles (Cont'd.)																	
3,3'-Dichlorobenzidine	mg/kg	32 U	R	1.4 U	0.41 U	3.7 U	3.6 U	4 U	NA	NA	NA	NA	NA	1.7 U	0.89 U	0.35 U	0.35 U
3-Nitroaniline	mg/kg	79 U	3.8 U	3.5 U	1 U	8.9 U	8.8 U	9.8 U	NA	NA	NA	NA	NA	4 U	2.2 U	0.84 U	0.84 U
4,6-Dinitro-2-methylphenol	mg/kg	79 U	3.8 UJ	3.5 U	1 U	8.9 U	8.8 U	9.8 U	NA	NA	NA	NA	NA	R	R	R	0.84 UJ
4-Bromophenyl phenyl ether	mg/kg	16 U	0.77 U	0.72 U	0.21 U	1.8 U	1.8 U	2 U	NA	NA	NA	NA	NA	0.83 U	0.44 U	0.17 U	0.17 U
4-Chloro-3-methylphenol	mg/kg	16 U	0.77 UJ	0.72 U	0.21 U	1.8 U	1.8 U	2 U	NA	NA	NA	NA	NA	R	R	R	0.17 U
4-Chloroaniline	mg/kg	16 U	0.77 U	0.72 U	0.21 U	1.8 U	1.8 U	2 U	NA	NA	NA	NA	NA	0.83 U	0.44 U	0.17 U	0.17 U
4-Chlorophenyl phenyl ether	mg/kg	16 U	0.77 U	0.72 U	0.21 U	1.8 U	1.8 U	2 U	NA	NA	NA	NA	NA	0.83 U	0.44 U	0.17 U	0.17 U
4-Methylphenol	mg/kg	16 U	0.77 UJ	0.72 U	0.21 U	1.8 U	1.8 U	2 U	NA	NA	NA	NA	NA	0.83 U	R	R	0.17 U
4-Nitroaniline	mg/kg	79 U	3.8 U	3.5 U	1 U	8.9 U	8.8 U	9.8 U	NA	NA	NA	NA	NA	4 UJ	2.2 UJ	0.84 UJ	0.84 U
4-Nitrophenol	mg/kg	79 U	3.8 UJ	3.5 U	1 U	8.9 U	8.8 U	9.8 U	NA	NA	NA	NA	NA	R	R	R	0.84 UJ
Acenaphthene	mg/kg	16 U	0.77 U	0.72 U	0.21 U	1.8 U	1.8 U	2 U	NA	NA	NA	NA	NA	0.13 J	0.44 U	0.078 J	0.17 U
Acenaphthylene	mg/kg	16 U	0.77 U	0.72 U	0.21 U	1.8 U	1.8 U	0.33 J	NA	NA	NA	NA	NA	0.83 U	0.44 U	0.17 U	0.17 U
Anthracene	mg/kg	16 U	0.77 U	0.72 U	0.21 U	1.8 U	1.8 U	2 U	NA	NA	NA	NA	NA	0.11 J	0.045 J	0.14 J	0.17 U
Benzo(a)anthracene	mg/kg	16 U	0.77 UJ	0.18 J	0.21 U	1.8 U	1.8 U	2 U	NA	NA	NA	NA	NA	0.4 J	0.22 J	0.24	0.17 U
Benzo(a)pyrene	mg/kg	16 U	0.77 UJ	0.17 J	0.21 U	1.8 U	1.8 U	2 U	NA	NA	NA	NA	NA	0.83 U	0.44 UJ	0.17 J	0.17 UJ
Benzo(b)fluoranthene	mg/kg	16 U	0.77 UJ	0.22 J	0.21 U	1.8 U	1.8 U	2 U	NA	NA	NA	NA	NA	0.56 J	0.44 UJ	0.33	0.17 UJ
Benzo(g,h,i)perylene	mg/kg	16 U	0.77 UJ	0.13 J	0.21 U	1.8 U	1.8 U	2 U	NA	NA	NA	NA	NA	0.83 UJ	0.44 UJ	0.094 J	0.17 UJ
Benzo(k)fluoranthene	mg/kg	16 U	0.77 UJ	0.11 J	0.21 U	1.8 U	1.8 U	2 U	NA	NA	NA	NA	NA	0.83 U	0.44 UJ	0.17 U	0.17 UJ
bis(2-Chloroethoxy)methane	mg/kg	16 U	0.77 U	0.72 U	0.21 U	1.8 U	1.8 U	2 U	NA	NA	NA	NA	NA	0.83 U	0.44 U	0.17 U	0.17 U
bis(2-Chloroethyl)ether	mg/kg	16 U	0.77 U	0.72 U	0.21 U	1.8 U	1.8 U	2 U	NA	NA	NA	NA	NA	0.83 U	0.44 U	0.17 U	0.17 U
bis(2-Ethylhexyl)phthalate	mg/kg	16 U	R	0.72 U	0.21 U	1.8 U	1.8 U	2 U	NA	NA	NA	NA	NA	0.83 U	0.44 U	0.1 J	0.17 U
Butyl benzyl phthalate	mg/kg	16 U	R	0.72 U	0.21 U	1.8 U	1.8 U	2 U	NA	NA	NA	NA	NA	0.83 U	0.44 U	0.17 U	0.17 U
Carbazole	mg/kg	16 U	0.77 U	0.72 U	0.21 U	1.8 U	1.8 U	2 U	NA	NA	NA	NA	NA	0.83 U	0.44 U	0.076 J	0.17 U
Chrysene	mg/kg	16 U	R	0.27 J	0.21 U	1.8 U	1.8 U	2 U	NA	NA	NA	NA	NA	0.44 J	0.27 J	0.23	0.17 U
Dibenz(a,h)anthracene	mg/kg	16 U	0.77 UJ	0.72 U	0.21 U	1.8 U	1.8 U	2 U	NA	NA	NA	NA	NA	0.83 U	0.44 UJ	0.17 U	0.17 UJ
Dibenzofuran	mg/kg	16 U	0.77 U	0.72 U	0.21 U	1.8 U	1.8 U	2 U	NA	NA	NA	NA	NA	0.15 J	0.44 U	0.096 J	0.019 J
Diethyl phthalate	mg/kg	16 U	0.77 U	0.72 U	0.21 U	1.8 U	1.8 U	2 U	NA	NA	NA	NA	NA	0.83 U	0.44 U	0.17 U	0.17 U
Dimethyl phthalate	mg/kg	16 U	0.77 U	0.72 U	0.21 U	1.8 U	1.8 U	2 U	NA	NA	NA	NA	NA	0.83 U	0.44 U	0.17 U	0.17 U
Di-n-butyl phthalate	mg/kg	16 U	0.77 U	0.72 U	0.21 U	1.8 U	1.8 U	2 U	NA	NA	NA	NA	NA	0.83 U	0.44 U	0.17 U	0.17 U
Di-n-octyl phthalate	mg/kg	16 U	0.77 UJ	0.72 U	0.21 U	1.8 U	1.8 U	2 U	NA	NA	NA	NA	NA	0.83 U	0.44 UJ	0.17 U	0.17 UJ
Fluoranthene	mg/kg	16 U	0.77 U	0.42 J	0.027 J	0.51 J	1.8 U	2 U	NA	NA	NA	NA	NA	1.1	0.4 J	0.58	0.065 J
Fluorene	mg/kg	16 U	0.77 U	0.72 U	0.21 U	1.8 U	1.8 U	2 U	NA	NA	NA	NA	NA	0.18 J	0.44 U	0.097 J	0.17 U
Hexachlorobenzene	mg/kg	16 U	0.77 U	0.72 U	0.21 U	1.8 U	1.8 U	2 U	NA	NA	NA	NA	NA	0.83 U	0.44 U	0.17 U	0.17 U
Hexachlorobutadiene	mg/kg	16 U	0.77 U	0.72 U	0.21 U	1.8 U	1.8 U	2 U	NA	NA	NA	NA	NA	0.83 U	0.44 U	0.17 U	0.17 U
Hexachlorocyclopentadiene	mg/kg	16 U	0.77 U	0.72 U	0.21 U	1.8 U	1.8 U	2 U	NA	NA	NA	NA	NA	0.83 U	0.44 U	0.17 U	0.17 U
Hexachloroethane	mg/kg	16 U	0.77 U	0.72 U	0.21 U	1.8 U	1.8 U	2 U	NA	NA	NA	NA	NA	0.83 U	0.44 U	0.17 U	0.17 U
Indeno(1,2,3-cd)pyrene	mg/kg	16 U	0.77 UJ	0.098 J	0.21 U	1.8 U	1.8 U	2 U	NA	NA	NA	NA	NA	0.83 U	0.44 UJ	0.074 J	0.17 UJ
Isophorone	mg/kg	16 U	0.77 U	0.72 U	0.21 U	1.8 U	1.8 U	2 U	NA	NA	NA	NA	NA	0.83 U	0.44 U	0.17 U	0.17 U
Naphthalene	mg/kg	16 U	0.77 U	0.39 J	0.39	1.8 U	1.8 U	0.4 J	NA	NA	NA	NA	NA	0.83 U	0.44 U	0.11 J	0.075 J
Nitrobenzene	mg/kg	16 U	0.77 U	0.72 U	0.21 U	1.8 U	1.8 U	2 U	NA	NA	NA	NA	NA	0.83 U	0.44 U	0.17 U	0.17 U
N-Nitroso-di-n-propylamine	mg/kg	16 U	0.77 U	0.72 U	0.21 U	1.8 U	1.8 U	2 U	NA	NA	NA	NA	NA	0.83 U	0.44 U	0.17 U	0.17 U
N-Nitrosodiphenylamine	mg/kg	16 U	0.77 U	0.72 U	0.21 U	1.8 U	1.8 U	2 U	NA	NA	NA	NA	NA	0.83 U	0.44 U	0.17 U	0.17 U
Pentachlorophenol	mg/kg	79 U	3.8 UJ	3.5 U	1 U	8.9 U	8.8 U	9.8 U	NA	NA	NA	NA	NA	R	R	R	0.84 U
Phenanthrene	mg/kg	16 U	0.77 U	0.26 J	0.031 J	0.57 J	0.51 J	0.68 J	NA	NA	NA	NA	NA	1.2	0.25 J	0.69	0.076 J
Phenol	mg/kg	16 U	0.77 UJ	0.72 U	0.21 U	1.8 U	1.8 U	2 U	NA	NA	NA	NA	NA	R	R	R	0.078 J
Pyrene	mg/kg	16 U	R	0.33 J	0.21 U	0.44 J	0.55 J	2 U	NA	NA	NA	NA	NA	1.1	0.5	0.56	0.084 J
PCBs																	
PCB-1016	mg/kg	0.2 UJ	3.9 U	0.18 U	0.21 U	3.7 U	0.73 U	0.2 U	0.33 U	0.33 U	0.33 U [0.33 U]	0.33 U	0.33 U	0.21 U	0.18 U	0.17 U	0.17 U
PCB-1221	mg/kg	0.2 UJ	3.9 U	0.18 U	0.21 U	3.7 U	0.73 U	0.2 U	0.33 U	0.33 U	0.33 U [0.33 U]	0.33 U	0.33 U	0.21 U	0.18 U	0.17 U	0.17 U
PCB-1232	mg/kg	0.2 UJ	3.9 U	0.18 U	0.21 U	3.7 U	0.73 U	0.2 U	0.33 U	0.33 U	0.33 U [0.33 U]	0.33 U	0.33 U	0.21 U	0.18 U	0.17 U	0.17 U
PCB-1242	mg/kg	0.2 UJ	3.9 U	0.18 U	0.21 U	3.7 U	0.73 U	0.2 U	0.33 U	0.33 U	0.33 U [0.33 U]	0.33 U	0.33 U	0.21 U	0.18 U	0.17 U	0.17 U
PCB-1248	mg/kg	0.2 UJ	3.9 U	0.18 U	0.32	3.7 U	0.77	0.2 U	0.33 U	0.33 U	0.33 U [0.33 U]	0.33 U	0.33 U	0.21 U	0.18 U	0.17 U	0.17 U
PCB-1254	mg/kg	0.2 UJ	3.9 U	0.18 U	0.21 U	3.7 U	0.73 U	0.2 U	1.4	0.43	0.68 [0.63]	0.28 J	0.34	0.21 U	0.18 U	0.17 U	0.17 U
PCB-1260	mg/kg	0.2 UJ	9.6	0.12 J	0.33	5.5	2.2	0.24	0.33 U	0.33 U	0.33 U [0.33 U]	0.33 U	0.33 U	0.13 J	0.15 J	0.04 J	0.44
Total Aroclors	mg/kg	ND	9.6	0.12	0.65	5.5	2.97	0.24	1.4	0.43	0.68 [0.63]	0.28 J	0.34	0.13	0.15	0.04	0.44

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TABLE 2-4
LNAPL ASSESSMENT AREA
ORGANIC COMPOUNDS SOIL ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth(feet): Date Collected:	Units	Excavated US-5 0 - 1 06/12/95	Excavated US-5-1 0 - 1 06/10/96	US-5-2 0 - 1 06/10/96	Excavated US-5-3 0 - 1 06/10/96	US-5-4 0 - 1 06/10/96	US-5-5 0 - 1 06/10/96	US-5-6 0 - 1 06/10/96	Excavated US-5-7 0 - 1 06/10/96	US-5-8 0 - 1 06/10/96	US-6 0 - 1 06/12/95	US-7 0 - 1 06/12/95	US-8 0 - 1 06/12/95	P1-B42 4 - 6 09/07/90	P1-B43 2- 4 09/07/90	P1-B44 2- 4 09/07/90	P1-B45 4 - 6 09/07/90	P1-B46 2- 4 09/07/90
Volatiles																		
1,1,1-Trichloroethane	mg/kg	0.0052 U	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U	0.0051 U	0.0051 U	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	mg/kg	0.0052 U	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U	0.0051 U	0.0051 U	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	mg/kg	0.0052 U	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U	0.0051 U	0.0051 U	NA	NA	NA	NA	NA
1,1-Dichloroethane	mg/kg	0.0052 U	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U	0.0051 U	0.0051 U	NA	NA	NA	NA	NA
1,1-Dichloroethene	mg/kg	0.0052 U	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U	0.0051 U	0.0051 U	NA	NA	NA	NA	NA
1,2-Dichloroethane	mg/kg	0.0052 U	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U	0.0051 U	0.0051 U	NA	NA	NA	NA	NA
1,2-Dichloroethene, Total	mg/kg	0.0052 U	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U	0.0051 U	0.0051 U	NA	NA	NA	NA	NA
1,2-Dichloropropane	mg/kg	0.0052 U	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U	0.0051 U	0.0051 U	NA	NA	NA	NA	NA
2-Butanone	mg/kg	0.052 U	NA	NA	NA	NA	NA	NA	NA	NA	0.052 U	0.051 U	0.051 U	NA	NA	NA	NA	NA
2-Hexanone	mg/kg	0.052 U	NA	NA	NA	NA	NA	NA	NA	NA	0.052 U	0.051 U	0.051 U	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	mg/kg	0.052 U	NA	NA	NA	NA	NA	NA	NA	NA	0.052 U	0.051 U	0.051 U	NA	NA	NA	NA	NA
Acetone	mg/kg	0.052 UJ	NA	NA	NA	NA	NA	NA	NA	NA	0.052 UJ	0.051 UJ	0.051 UJ	NA	NA	NA	NA	NA
Benzene	mg/kg	0.0052 U	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U	0.0051 U	0.0051 U	0.010 U	0.010 U	0.025	0.130	0.010 U
Bromodichloromethane	mg/kg	0.0052 U	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U	0.0051 U	0.0051 U	NA	NA	NA	NA	NA
Bromoform	mg/kg	0.0052 U	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U	0.0051 U	0.0051 U	NA	NA	NA	NA	NA
Bromomethane	mg/kg	0.0052 U	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U	0.0051 U	0.0051 U	NA	NA	NA	NA	NA
Carbon disulfide	mg/kg	0.0052 U	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U	0.0051 U	0.0051 U	NA	NA	NA	NA	NA
Carbon tetrachloride	mg/kg	0.0052 U	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U	0.0051 U	0.0051 U	NA	NA	NA	NA	NA
Chlorobenzene	mg/kg	0.0052 U	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U	0.0051 U	0.0051 U	NA	NA	NA	NA	NA
Chlorodibromomethane	mg/kg	0.0052 U	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U	0.0051 U	0.0051 U	NA	NA	NA	NA	NA
Chloroethane	mg/kg	0.0052 U	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 UJ	0.0051 U	0.0051 U	NA	NA	NA	NA	NA
Chloroform	mg/kg	0.0052 U	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U	0.0051 U	0.0051 U	NA	NA	NA	NA	NA
Chloromethane	mg/kg	0.0052 UJ	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 UJ	0.0051 UJ	0.0051 U	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	mg/kg	0.0052 U	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U	0.0051 U	0.0051 U	NA	NA	NA	NA	NA
Ethylbenzene	mg/kg	0.0052 U	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U	0.0051 U	0.0051 U	0.010 U	0.010 U	0.010 U	0.045	0.010 U
Methylene chloride	mg/kg	0.011 UJ	NA	NA	NA	NA	NA	NA	NA	NA	0.01 U	0.015 UJ	0.0095 UJ	NA	NA	NA	NA	NA
Styrene	mg/kg	0.0052 U	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U	0.0051 U	0.0051 U	NA	NA	NA	NA	NA
Tetrachloroethene	mg/kg	0.0052 U	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U	0.0051 U	0.0051 U	NA	NA	NA	NA	NA
Toluene	mg/kg	0.0088 UJ	NA	NA	NA	NA	NA	NA	NA	NA	0.0029 U	0.009 UJ	0.016 J	0.010 U	0.010 U	0.030	0.140	0.010 U
trans-1,2-Dichloroethene	mg/kg	0.0052 U	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U	0.0051 U	0.0051 U	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	mg/kg	0.0052 U	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U	0.0051 U	0.0051 U	NA	NA	NA	NA	NA
Trichloroethene	mg/kg	0.0052 U	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U	0.0051 U	0.0051 U	NA	NA	NA	NA	NA
Vinyl chloride	mg/kg	0.0052 U	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U	0.0051 U	0.0051 U	NA	NA	NA	NA	NA
Xylenes, Total	mg/kg	0.0052 U	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U	0.0051 U	0.0051 U	0.011	0.010 U	0.045	0.260	0.010 U
Semivolatiles																		
1,2,4-Trichlorobenzene	mg/kg	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	0.34 U	0.17 U	0.17 U	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	0.0052 U	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U	0.0051 U	0.0051 U	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	0.0052 U	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U	0.0051 U	0.0051 U	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	0.0052 U	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U	0.0051 U	0.0051 U	NA	NA	NA	NA	NA
2,2'-oxybis(dichloropropane)	mg/kg	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	0.34 U	0.17 U	0.17 U	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	mg/kg	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	0.34 U	0.17 U	0.17 U	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	mg/kg	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	0.34 U	0.17 U	0.17 U	NA	NA	NA	NA	NA
2,4-Dichlorophenol	mg/kg	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	0.34 U	0.17 U	0.17 U	NA	NA	NA	NA	NA
2,4-Dimethylphenol	mg/kg	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	0.34 U	0.17 U	0.17 U	NA	NA	NA	NA	NA
2,4-Dinitrophenol	mg/kg	0.83 U	NA	NA	NA	NA	NA	NA	NA	NA	1.7 U	0.82 U	0.81 UJ	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	mg/kg	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	0.34 U	0.17 U	0.17 U	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	mg/kg	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	0.34 U	0.17 U	0.17 U	NA	NA	NA	NA	NA
2-Chloronaphthalene	mg/kg	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	0.34 U	0.17 U	0.17 U	NA	NA	NA	NA	NA
2-Chlorophenol	mg/kg	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	0.34 U	0.17 U	0.17 U	NA	NA	NA	NA	NA
2-Methylnaphthalene	mg/kg	0.18	NA	NA	NA	NA	NA	NA	NA	NA	0.26 J	0.16 J	0.48	NA	NA	NA	NA	NA
2-Methylphenol	mg/kg	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	0.34 U	0.17 U	0.17 U	NA	NA	NA	NA	NA
2-Nitroaniline	mg/kg	0.83 U	NA	NA	NA	NA	NA	NA	NA	NA	1.7 U	0.82 U	0.81 U	NA	NA	NA	NA	NA
2-Nitrophenol	mg/kg	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	0.34 U	0.17 U	0.17 U	NA	NA	NA	NA	NA

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TABLE 2-4
LNAPL ASSESSMENT AREA
ORGANIC COMPOUNDS SOIL ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth(feet): / Date Collected:	Units	Excavated US-5 0 - 1 06/12/95	Excavated US-5-1 0 - 1 06/10/96	US-5-2 0 - 1 06/10/96	Excavated US-5-3 0 - 1 06/10/96	US-5-4 0 - 1 06/10/96	US-5-5 0 - 1 06/10/96	US-5-6 0 - 1 06/10/96	Excavated US-5-7 0 - 1 06/10/96	US-5-8 0 - 1 06/10/96	US-6 0 - 1 06/12/95	US-7 0 - 1 06/12/95	US-8 0 - 1 06/12/95	P1-B42 4 - 6 09/07/90	P1-B43 2- 4 09/07/90	P1-B44 2- 4 09/07/90	P1-B45 4 - 6 09/07/90	P1-B46 2- 4 09/07/90
Semivolatiles (Cont'd.)																		
3,3'-Dichlorobenzidine	mg/kg	0.34 U	NA	NA	NA	NA	NA	NA	NA	NA	0.68 UJ	0.34 U	0.33 U	NA	NA	NA	NA	NA
3-Nitroaniline	mg/kg	0.83 U	NA	NA	NA	NA	NA	NA	NA	NA	1.7 U	0.82 U	0.81 U	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	mg/kg	0.83 U	NA	NA	NA	NA	NA	NA	NA	NA	1.7 U	0.82 U	0.81 U	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	mg/kg	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	0.34 U	0.17 U	0.17 U	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	mg/kg	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	0.34 U	0.17 U	0.17 U	NA	NA	NA	NA	NA
4-Chloroaniline	mg/kg	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	0.048 J	0.17 U	0.17 U	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	mg/kg	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	0.34 U	0.17 U	0.17 U	NA	NA	NA	NA	NA
4-Methylphenol	mg/kg	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	0.34 U	0.17 U	0.17 U	NA	NA	NA	NA	NA
4-Nitroaniline	mg/kg	0.83 UJ	NA	NA	NA	NA	NA	NA	NA	NA	1.7 UJ	0.82 UJ	0.81 UJ	NA	NA	NA	NA	NA
4-Nitrophenol	mg/kg	0.83 UJ	NA	NA	NA	NA	NA	NA	NA	NA	1.7 UJ	0.82 UJ	0.81 UJ	NA	NA	NA	NA	NA
Acenaphthene	mg/kg	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	0.34 U	0.17 U	0.02 J	NA	NA	NA	NA	NA
Acenaphthylene	mg/kg	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	0.34 U	0.17 U	0.17 U	NA	NA	NA	NA	NA
Anthracene	mg/kg	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	0.23 J	0.17 U	0.019 J	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/kg	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	0.13 J	0.17 U	0.1 J	NA	NA	NA	NA	NA
Benzo(a)pyrene	mg/kg	0.17 UJ	NA	NA	NA	NA	NA	NA	NA	NA	0.34 UJ	0.17 U	0.06 J	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	mg/kg	0.062 J	NA	NA	NA	NA	NA	NA	NA	NA	0.34 UJ	0.17 U	0.16 J	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	mg/kg	0.17 UJ	NA	NA	NA	NA	NA	NA	NA	NA	0.34 UJ	0.17 UJ	0.039 J	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	mg/kg	0.17 UJ	NA	NA	NA	NA	NA	NA	NA	NA	0.34 UJ	0.17 U	0.047 J	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	mg/kg	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	0.34 U	0.17 U	0.17 U	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	mg/kg	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	0.34 U	0.17 U	0.17 U	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	mg/kg	0.15 J	NA	NA	NA	NA	NA	NA	NA	NA	0.34 UJ	0.17 U	0.075 J	NA	NA	NA	NA	NA
Butyl benzyl phthalate	mg/kg	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	0.34 UJ	0.17 U	0.027 J	NA	NA	NA	NA	NA
Carbazole	mg/kg	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	0.34 U	0.17 U	0.17 U	NA	NA	NA	NA	NA
Chrysene	mg/kg	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	0.16 J	0.17 U	0.16 J	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	mg/kg	0.17 UJ	NA	NA	NA	NA	NA	NA	NA	NA	0.34 UJ	0.17 U	0.17 U	NA	NA	NA	NA	NA
Dibenzofuran	mg/kg	0.034 J	NA	NA	NA	NA	NA	NA	NA	NA	0.055 J	0.035 J	0.1 J	NA	NA	NA	NA	NA
Diethyl phthalate	mg/kg	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	0.34 U	0.17 U	0.17 UJ	NA	NA	NA	NA	NA
Dimethyl phthalate	mg/kg	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	0.34 U	0.17 U	0.17 U	NA	NA	NA	NA	NA
Di-n-butyl phthalate	mg/kg	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	0.34 U	0.17 U	0.17 U	NA	NA	NA	NA	NA
Di-n-octyl phthalate	mg/kg	0.17 UJ	NA	NA	NA	NA	NA	NA	NA	NA	0.34 UJ	0.17 U	0.17 U	NA	NA	NA	NA	NA
Fluoranthene	mg/kg	0.065 J	NA	NA	NA	NA	NA	NA	NA	NA	0.18 J	0.05 J	0.23	NA	NA	NA	NA	NA
Fluorene	mg/kg	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	0.34 U	0.17 U	0.017 J	NA	NA	NA	NA	NA
Hexachlorobenzene	mg/kg	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	0.34 U	0.17 U	0.17 U	NA	NA	NA	NA	NA
Hexachlorobutadiene	mg/kg	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	0.34 U	0.17 U	0.17 U	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	mg/kg	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	0.34 U	0.17 U	0.17 U	NA	NA	NA	NA	NA
Hexachloroethane	mg/kg	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	0.34 U	0.17 U	0.17 U	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	mg/kg	0.17 UJ	NA	NA	NA	NA	NA	NA	NA	NA	0.34 UJ	0.17 U	0.028 J	NA	NA	NA	NA	NA
Isophorone	mg/kg	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	0.34 U	0.17 U	0.17 U	NA	NA	NA	NA	NA
Naphthalene	mg/kg	0.13 J	NA	NA	NA	NA	NA	NA	NA	NA	0.19 J	0.11 J	0.35	NA	NA	NA	NA	NA
Nitrobenzene	mg/kg	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	0.34 U	0.17 U	0.17 U	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	mg/kg	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	0.34 U	0.17 U	0.17 U	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	mg/kg	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	0.34 U	0.17 U	0.17 U	NA	NA	NA	NA	NA
Pentachlorophenol	mg/kg	0.83 U	NA	NA	NA	NA	NA	NA	NA	NA	1.7 U	0.82 U	0.81 UJ	NA	NA	NA	NA	NA
Phenanthrene	mg/kg	0.11 J	NA	NA	NA	NA	NA	NA	NA	NA	0.22 J	0.098 J	0.27	NA	NA	NA	NA	NA
Phenol	mg/kg	0.047 J	NA	NA	NA	NA	NA	NA	NA	NA	0.045 J	0.025 J	0.044 J	NA	NA	NA	NA	NA
Pyrene	mg/kg	0.086 J	NA	NA	NA	NA	NA	NA	NA	NA	0.31 J	0.078 J	0.25	NA	NA	NA	NA	NA
PCBs																		
PCB-1016	mg/kg	6.9 U	0.36 U	0.37 U	0.2 U	0.36 U	0.18 U	0.19 U	1.9 U	0.19 U	0.69 U	0.34 U	1.7 U	NA	NA	NA	NA	NA
PCB-1221	mg/kg	6.9 U	0.36 U	0.37 U	0.2 U	0.36 U	0.18 U	0.19 U	1.9 U	0.19 U	0.69 U	0.34 U	1.7 U	NA	NA	NA	NA	NA
PCB-1232	mg/kg	6.9 U	0.36 U	0.37 U	0.2 U	0.36 U	0.18 U	0.19 U	1.9 U	0.19 U	0.69 U	0.34 U	1.7 U	NA	NA	NA	NA	NA
PCB-1242	mg/kg	6.9 U	0.36 U	0.37 U	0.2 U	0.36 U	0.18 U	0.19 U	1.9 U	0.19 U	0.69 U	0.34 U	1.7 U	NA	NA	NA	NA	NA
PCB-1248	mg/kg	6.9 U	0.36 U	0.37 U	0.2 U	0.36 U	0.18 U	0.19 U	1.9 U	0.19 U	0.69 U	0.34 U	1.7 U	NA	NA	NA	NA	NA
PCB-1254	mg/kg	6.9 U	0.72 U	0.74 U	0.2 U	0.73 U	0.18 U	0.37 U	3.7 U	0.19 U	0.69 U	0.34 U	1.7 U	NA	NA	NA	NA	NA
PCB-1260	mg/kg	41	3.4 J	3.1 J	0.72 J	4.4 J	0.73 J	2.2 J	26 J	0.19 UJ	3.8	1	5	NA	NA	NA	NA	NA
Total Aroclors	mg/kg	41	3.4	3.1	0.72	4.4	0.73	2.2	26	ND	3.8	1	5	NA	NA	NA	NA	NA

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TABLE 2-5
LNAPL ASSESSMENT AREA
INORGANIC CONSTITUENTS SOIL ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth(feet): Date Collected:	Units	SB-325 8 - 10 06/14/95	SB-362 0 - 2 09/28/95	SB-362 4 - 6 09/28/95	SB-362 8 - 10 09/28/95	SB-363 0 - 2 09/28/95	SB-363 4 - 6 09/28/95	SB-363 8 - 10 09/28/95	UP-B1 07/14/98	UP-B2 07/14/98	UP-S1 07/14/98	UP-S2 07/14/98
Inorganics												
Aluminum	mg/kg	NA	7,120 J	3,030 J	3,510 J	5,020 J	3,080 J	5,190 J	NA	NA	NA	NA
Antimony	mg/kg	NA	9.16	4.27	0.378	17.4	22.3	0.54	NA	NA	NA	NA
Arsenic	mg/kg	NA	3.62	23.6	3.7	4.67	4.11	1.05	NA	NA	NA	NA
Barium	mg/kg	NA	74.1	38.3	32.2	112	51.6	42.8	NA	NA	NA	NA
Beryllium	mg/kg	NA	0.587 U	0.542 U	0.627 U	0.558 U	0.55 U	0.612 U	NA	NA	NA	NA
Cadmium	mg/kg	NA	0.128	0.0336	0.125	0.379	0.119	0.0441	NA	NA	NA	NA
Calcium	mg/kg	NA	35,400 J	15,600 J	8,650 J	49,000 J	73,600 J	12,800 J	NA	NA	NA	NA
Chromium (Total)	mg/kg	NA	52.1	109	8.96	77	147	11.8	NA	NA	NA	NA
Cobalt	mg/kg	NA	7.05	12.6	6.27 U	6.96	5.5 U	6.12 U	NA	NA	NA	NA
Copper	mg/kg	NA	204	661	6.19	202	44,700	7.76	NA	NA	NA	NA
Cyanide, Total	mg/kg	NA	0.43	0.27 U	0.31 U	0.77	0.81	0.31 U	NA	NA	NA	NA
Iron	mg/kg	NA	43,300	16,200	8,360	34,900	43,100	10,700	NA	NA	NA	NA
Lead	mg/kg	NA	1,020	93.2	13.2	1,320	1,780	26.5	NA	NA	NA	NA
Magnesium	mg/kg	NA	11,800 J	787 J	4,630 J	5,730 J	8,400 J	7,740 J	NA	NA	NA	NA
Manganese	mg/kg	NA	771 J	1,240 J	130 J	1,270 J	452 J	210 J	NA	NA	NA	NA
Mercury	mg/kg	NA	0.101	0.0542 UJ	0.0627 UJ	0.0616 J	0.055 UJ	0.0612 UJ	NA	NA	NA	NA
Nickel	mg/kg	NA	63.4	105	8.18	104	55.7	10.3	NA	NA	NA	NA
Potassium	mg/kg	NA	1,610	542 U	627 U	901	550 U	809	NA	NA	NA	NA
Selenium	mg/kg	NA	0.587 UJ	2.17 UJ	0.314 UJ	0.558 UJ	0.55 UJ	0.306 UJ	NA	NA	NA	NA
Silver	mg/kg	NA	0.587 UJ	2.17 UJ	0.314 UJ	0.558 UJ	1.38	0.306 UJ	NA	NA	NA	NA
Sodium	mg/kg	NA	587 U	542 U	627 U	558 U	550 U	612 U	NA	NA	NA	NA
Thallium	mg/kg	NA	0.294 U	0.271 U	0.314 U	0.279 U	0.275 U	0.306 U	NA	NA	NA	NA
Vanadium	mg/kg	NA	19	13.8	10.7	14.6	7.46	12.1	NA	NA	NA	NA
Zinc	mg/kg	NA	58.6	22.1	17.2	108	5,560	17.5	NA	NA	NA	NA

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TABLE 2-5
LNAPL ASSESSMENT AREA
INORGANIC CONSTITUENTS SOIL ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth(feet): / Date Collected:	Units	UP-S3 07/14/98	US-1 0 - 1 06/12/95	US-2 0 - 1 06/12/95	US-3 0 - 1 06/12/95	US-4 0 - 1 06/12/95	Excavated US-5 0 - 1 06/12/95	Excavated US-5-1 0 - 1 06/10/96	US-5-2 0 - 1 06/10/96	US-5-3 0 - 1 06/10/96	US-5-4 0 - 1 06/10/96	US-5-5 0 - 1 06/10/96
Inorganics												
Aluminum	mg/kg	NA	5,040	3,880	2,930	1,440	2,060	NA	NA	NA	NA	NA
Antimony	mg/kg	NA	0.405 J	0.5 J	0.556 J	0.721 J	0.713 J	NA	NA	NA	NA	NA
Arsenic	mg/kg	NA	4.54	3.7	2.82	1.94	3.07	NA	NA	NA	NA	NA
Barium	mg/kg	NA	46.7	40.6	24.3	21.1	30.4	NA	NA	NA	NA	NA
Beryllium	mg/kg	NA	0.629 U	0.538 U	0.526 U	0.528 U	0.519 U	NA	NA	NA	NA	NA
Cadmium	mg/kg	NA	0.157	0.141	0.1	0.27	0.33	NA	NA	NA	NA	NA
Calcium	mg/kg	NA	13,300 J	12,100 J	21,900 J	275,000 J	20,300 J	NA	NA	NA	NA	NA
Chromium (Total)	mg/kg	NA	49.5	18.6	15.3	30	30.6	NA	NA	NA	NA	NA
Cobalt	mg/kg	NA	6.29 U	5.38 U	5.26 U	5.28 U	5.19 U	NA	NA	NA	NA	NA
Copper	mg/kg	NA	20.3	14.2	18.6	18.7	23.6	NA	NA	NA	NA	NA
Cyanide, Total	mg/kg	NA	0.31 U	0.27 U	0.26 U	0.26 U	0.26 U	NA	NA	NA	NA	NA
Iron	mg/kg	NA	9,970	11,600	11,300	16,900	19,800	NA	NA	NA	NA	NA
Lead	mg/kg	NA	16.4 J	14.7 J	13 J	33.5 J	47.6 J	NA	NA	NA	NA	NA
Magnesium	mg/kg	NA	16,300	10,600	8,680	7,090	5,470	NA	NA	NA	NA	NA
Manganese	mg/kg	NA	358 J	399 J	375 J	267 J	401 J	NA	NA	NA	NA	NA
Mercury	mg/kg	NA	0.0629 U	0.0538 U	0.0526 U	0.0528 U	0.0519 U	NA	NA	NA	NA	NA
Nickel	mg/kg	NA	11.9	13.1	15.1	47.5	124	NA	NA	NA	NA	NA
Potassium	mg/kg	NA	871	600	543	528 U	519 U	NA	NA	NA	NA	NA
Selenium	mg/kg	NA	0.314 UJ	0.269 UJ	0.263 UJ	0.528 UJ*	0.26 UJ	NA	NA	NA	NA	NA
Silver	mg/kg	NA	0.629 UJ*	0.538 UJ*	0.526 UJ*	0.264 UJ	0.26 UJ	NA	NA	NA	NA	NA
Sodium	mg/kg	NA	629 U	538 U	526 U	528 U	526	NA	NA	NA	NA	NA
Thallium	mg/kg	NA	0.314 UJ	0.269 UJ	0.263 UJ	0.264 UJ	0.26 UJ	NA	NA	NA	NA	NA
Vanadium	mg/kg	NA	16	13.1	10.7	5.01	5.71	NA	NA	NA	NA	NA
Zinc	mg/kg	NA	49.1	38.7	24.7	54.3	58.1	NA	NA	NA	NA	NA

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TABLE 2-5
LNAPL ASSESSMENT AREA
INORGANIC CONSTITUENTS SOIL ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth(feet): Date Collected:	Units	US-5-6 0 - 1 06/10/96	Excavated US-5-7 0 - 1 06/10/96	US-5-8 0 - 1 06/10/96	US-6 0 - 1 06/12/95	US-7 0 - 1 06/12/95	US-8 0 - 1 06/12/95	P1-B42 4 - 6 09/07/90	P1-B43 2- 4 09/07/90	P1-B44 2- 4 09/07/90	P1-B45 4 - 6 09/07/90	P1-B46 2- 4 09/07/90
Inorganics												
Aluminum	mg/kg	NA	NA	NA	2,680	1,250 J	2,730 J	NA	NA	NA	NA	NA
Antimony	mg/kg	NA	NA	NA	0.624 J	0.319	0.574	NA	NA	NA	NA	NA
Arsenic	mg/kg	NA	NA	NA	9.59	2.17	2.41	NA	NA	NA	NA	NA
Barium	mg/kg	NA	NA	NA	35.3	8.92	27.7	NA	NA	NA	NA	NA
Beryllium	mg/kg	NA	NA	NA	0.516 U	0.513 U	0.507 U	NA	NA	NA	NA	NA
Cadmium	mg/kg	NA	NA	NA	0.225	0.418	0.288	NA	NA	NA	NA	NA
Calcium	mg/kg	NA	NA	NA	19,400 J	34,100 J	11,900 J	NA	NA	NA	NA	NA
Chromium (Total)	mg/kg	NA	NA	NA	38.7	8.87	31.8	NA	NA	NA	NA	NA
Cobalt	mg/kg	NA	NA	NA	5.16 U	5.13 U	5.07 U	NA	NA	NA	NA	NA
Copper	mg/kg	NA	NA	NA	28.2	11	22.9	NA	NA	NA	NA	NA
Cyanide, Total	mg/kg	NA	NA	NA	0.26 U	0.26 U	0.25 U	NA	NA	NA	NA	NA
Iron	mg/kg	NA	NA	NA	18,800	6,570	19,600	NA	NA	NA	NA	NA
Lead	mg/kg	NA	NA	NA	49.2 J	12.6 J	40.8 J	NA	NA	NA	NA	NA
Magnesium	mg/kg	NA	NA	NA	5,430	7,420	12,600	NA	NA	NA	NA	NA
Manganese	mg/kg	NA	NA	NA	985 J	171 J	693 J	NA	NA	NA	NA	NA
Mercury	mg/kg	NA	NA	NA	0.0516 U	0.0513 U	0.0507 U	NA	NA	NA	NA	NA
Nickel	mg/kg	NA	NA	NA	28.4	17.7	29.6	NA	NA	NA	NA	NA
Potassium	mg/kg	NA	NA	NA	516 U	513 U	507 U	NA	NA	NA	NA	NA
Selenium	mg/kg	NA	NA	NA	0.258 UJ	0.256 UJ	0.253 UJ	NA	NA	NA	NA	NA
Silver	mg/kg	NA	NA	NA	0.258 UJ	0.256 UJ	0.253 UJ	NA	NA	NA	NA	NA
Sodium	mg/kg	NA	NA	NA	516 U	513 U	507 U	NA	NA	NA	NA	NA
Thallium	mg/kg	NA	NA	NA	0.258 UJ	0.256 UJ	0.253 UJ	NA	NA	NA	NA	NA
Vanadium	mg/kg	NA	NA	NA	8.56	4.1	7.04	NA	NA	NA	NA	NA
Zinc	mg/kg	NA	NA	NA	51.8	58.6	61.8	NA	NA	NA	NA	NA

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TABLE 2-6
FORMER UST # 7
SOIL ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth(feet): / Date Collected:	Units	BBL-MW1 4 - 6 05/02/96	BBL-MW2 4 - 6 05/02/96	BBL-MW3 6 - 8 05/02/96	BBL-MW4 4 - 6 05/03/96	BBL-MW5 4 - 6 05/03/96	BBL-SB1 4 - 6 05/06/96	BBL-SB1 8 - 10 05/06/96	BBL-SB2 0 - 2 05/07/96	BBL-SB2 8 - 10 05/07/96	BBL-SB3 6 - 8 05/07/96	BBL-SB3 8 - 10 05/07/96	BBL-SB4 0 - 2 05/07/96	BBL-SB4 8 - 10 05/07/96	BBL-SB5 0 - 2 05/06/96	BBL-SB5 20 - 22 05/06/96
Volatiles																
1,1,1-Trichloroethane	mg/kg	0.013 U	0.0058 U	1 U	0.0055 UJ	0.0056 U	0.0057 U	3.5 U	0.0054 U	0.0057 U	0.0059 U	3.7 U	3.4 U	1.6 U	0.006 U	0.0061 U
1,1,2,2-Tetrachloroethane	mg/kg	0.013 U	0.0058 U	1 U	0.0055 UJ	0.0056 U	0.0057 U	3.5 U	0.0054 U	0.0057 U	0.0059 U	3.7 U	3.4 U	1.6 U	0.006 U	0.0061 U
1,1,2-Trichloroethane	mg/kg	0.013 U	0.0058 U	1 U	0.0055 UJ	0.0056 U	0.0057 U	3.5 U	0.0054 U	0.0057 U	0.0059 U	3.7 U	3.4 U	1.6 U	0.006 U	0.0061 U
1,1-Dichloroethane	mg/kg	0.013 U	0.0058 U	1 U	0.0055 UJ	0.0056 U	0.0057 U	3.5 U	0.0054 U	0.0057 U	0.0059 U	3.7 U	3.4 U	1.6 U	0.006 U	0.0061 U
1,1-Dichloroethene	mg/kg	0.013 U	0.0058 U	1 U	0.0055 UJ	0.0056 U	0.0057 U	3.5 U	0.0054 U	0.0057 U	0.0059 U	3.7 U	3.4 U	1.6 U	0.006 U	0.0061 U
1,2,4-Trimethylbenzene	mg/kg	0.023	R	38 J	R	R	R	62	R	0.0055 J	0.11	84 J	R	R	R	R
1,2-Dichloroethane	mg/kg	0.013 U	0.0058 U	1 U	0.0055 UJ	0.0056 U	0.0057 U	3.5 U	0.0054 U	0.0057 U	0.0059 U	3.7 U	3.4 U	1.6 U	0.006 U	0.0061 U
1,2-Dichloropropane	mg/kg	0.013 U	0.0058 U	1 U	0.0055 UJ	0.0056 U	0.0057 U	3.5 U	0.0054 U	0.0057 U	0.0059 U	3.7 U	3.4 U	1.6 U	0.006 U	0.0061 U
1,3,5-Trimethylbenzene	mg/kg	0.027	R	7.7 J	R	R	R	18	R	R	0.019	7.1 J	R	R	R	R
2-Butanone	mg/kg	0.13 U	0.058 U	10 U	0.0034 J	0.0038 J	0.0036 J	35 U	0.013 J	0.057 U	0.059 U	37 U	34 U	16 U	0.06 U	0.061 U
2-Hexanone	mg/kg	0.13 U	0.058 U	10 U	0.055 UJ	0.056 U	0.057 U	35 U	0.054 U	0.057 U	0.059 U	37 U	34 U	16 U	0.06 U	0.061 U
4-Methyl-2-pentanone	mg/kg	0.13 U	0.058 U	10 U	0.055 UJ	0.056 U	0.057 U	35 U	0.054 U	0.057 U	0.059 U	37 U	34 U	16 U	0.06 U	0.061 U
Acetone	mg/kg	0.13 U	0.058 U	10 U	0.0041 J	0.039 J	0.04 J	35 U	0.043 J	0.033 J	0.0083 J	5 J	34 U	16 U	0.06 U	0.011 J
Benzene	mg/kg	0.013 U	0.003 J	7.3 J	0.0055 UJ	0.0056 U	0.0057 U	3.5 U	0.0025 J	0.01	0.043	21 J	2.7 J	3	0.006 U	0.0061 U
Bromodichloromethane	mg/kg	0.013 U	0.0058 U	1 U	0.0055 UJ	0.0056 U	0.0057 U	3.5 U	0.0054 U	0.0057 U	0.0059 U	3.7 U	3.4 U	1.6 U	0.006 U	0.0061 U
Bromoform	mg/kg	0.013 U	0.0058 U	1 U	0.0055 UJ	0.0056 U	0.0057 U	3.5 U	0.0054 U	0.0057 U	0.0059 U	3.7 U	3.4 U	1.6 U	0.006 U	0.0061 U
Bromomethane	mg/kg	0.013 U	0.0058 U	1 U	0.0055 UJ	0.0056 U	0.0057 U	3.5 U	0.0054 U	0.0057 U	0.0059 U	3.7 U	3.4 U	1.6 U	0.006 U	0.0061 U
Carbon disulfide	mg/kg	0.013 U	0.0058 U	1 U	0.0055 UJ	0.0056 U	0.0057 U	3.5 U	0.0054 U	0.0047 J	0.0047 J	3.7 U	3.4 U	1.6 U	0.006 U	0.0061 U
Carbon tetrachloride	mg/kg	0.013 U	0.0058 U	1 U	0.0055 UJ	0.0056 U	0.0057 U	3.5 U	0.0054 U	0.0057 U	0.0059 U	3.7 U	3.4 U	1.6 U	0.006 U	0.0061 U
Chlorobenzene	mg/kg	0.013 U	0.0058 U	1 U	0.0055 UJ	0.0056 U	0.0057 U	3.5 U	0.0054 U	0.0057 U	0.0059 U	3.7 U	3.4 U	1.6 U	0.006 U	0.0061 U
Chlorodibromomethane	mg/kg	0.013 U	0.0058 U	1 U	0.0055 UJ	0.0056 U	0.0057 U	3.5 U	0.0054 U	0.0057 U	0.0059 U	3.7 U	3.4 U	1.6 U	0.006 U	0.0061 U
Chloroethane	mg/kg	0.013 U	0.0058 U	1 U	0.0055 UJ	0.0056 U	0.0057 U	3.5 U	0.0054 U	0.0057 U	0.0059 U	3.7 U	3.4 U	1.6 U	0.006 U	0.0061 U
Chloroform	mg/kg	0.013 U	0.0058 U	1 U	0.0055 UJ	0.0056 U	0.0057 U	3.5 U	0.0054 U	0.0057 U	0.0059 U	3.7 U	3.4 U	1.6 U	0.006 U	0.0061 U
Chloromethane	mg/kg	0.013 U	0.0058 U	1 U	0.0055 UJ	0.0056 U	0.0057 U	3.5 U	0.0054 U	0.0057 U	0.0059 U	2.5 J	3.4 U	1.6 U	0.006 U	0.0061 U
cis-1,2-Dichloroethene	mg/kg	0.013 U	0.0058 U	1 U	0.0055 UJ	0.0056 U	0.0057 U	3.5 U	0.0054 U	0.0057 U	0.0059 U	3.7 U	3.4 U	1.6 U	0.006 U	0.0061 U
cis-1,3-Dichloropropene	mg/kg	0.013 U	0.0058 U	1 U	0.0055 UJ	0.0056 U	0.0057 U	3.5 U	0.0054 U	0.0057 U	0.0059 U	3.7 U	3.4 U	1.6 U	0.006 U	0.0061 U
Ethylbenzene	mg/kg	0.013 U	0.0036 J	14 J	0.0055 UJ	0.0056 U	0.0057 U	5.4	0.0054 U	0.0028 J	0.015	29 J	28	23	0.006 U	0.0061 U
Methyl tert-butyl ether	mg/kg	0.053 U	0.023 U	4.2 U	0.022 UJ	0.022 U	0.0057 U	14 U	0.022 U	0.022 U	0.024 U	15 U	13 U	6.4 U	0.024 U	0.024 U
Methylene chloride	mg/kg	0.013 U	0.0072 J	1 U	0.0043 J	0.0056 U	0.0057 U	3.5 U	0.0054 U	0.0057 U	0.0059 U	3.7 U	3.4 U	1.6 U	0.006 U	0.0061 U
Styrene	mg/kg	0.013 U	0.0058 U	1 U	0.0055 UJ	0.0056 U	0.0057 U	3.5 U	0.0054 U	0.0057 U	0.0059 U	3.7 U	3.4 U	1.6 U	0.006 U	0.0061 U
Tetrachloroethene	mg/kg	0.013 U	0.0058 U	1 U	0.0055 UJ	0.0056 U	0.0057 U	3.5 U	0.0054 U	0.0057 U	0.0059 U	3.7 U	3.4 U	1.6 U	0.006 U	0.0061 U
Toluene	mg/kg	0.013 U	0.0091 J	6.4 J	0.012 J	0.0056 U	0.03	3.5 U	0.095	0.031	0.0055 J	2.9 J	3.8	4.3	0.006 U	0.0024 J
trans-1,2-Dichloroethene	mg/kg	0.013 U	0.0058 U	1 U	0.0055 UJ	0.0056 U	0.0057 U	3.5 U	0.0054 U	0.0057 U	0.0059 U	3.7 U	3.4 U	1.6 U	0.006 U	0.0061 U
trans-1,3-Dichloropropene	mg/kg	0.013 U	0.0058 U	1 U	0.0055 UJ	0.0056 U	0.0057 U	3.5 U	0.0054 U	0.0057 U	0.0059 U	3.7 U	3.4 U	1.6 U	0.006 U	0.0061 U
Trichloroethene	mg/kg	0.013 U	0.0058 U	1 U	0.0055 UJ	0.0056 U	0.0057 U	3.5 U	0.0054 U	0.0057 U	0.0059 U	3.7 U	3.4 U	1.6 U	0.006 U	0.0061 U
Vinyl chloride	mg/kg	0.013 U	0.0058 U	1 U	0.0055 UJ	0.0056 U	0.0057 U	3.5 U	0.0054 U	0.0057 U	0.0059 U	3.7 U	3.4 U	1.6 U	0.006 U	0.0061 U
Xylenes, Total	mg/kg	0.0078 J	0.0058 U	39 J	0.0055 UJ	0.0056 U	0.0057 U	29	0.0027 J	0.01	0.09	45 J	120	90	0.006 U	0.0061 U

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TABLE 2-6
FORMER UST # 7
SOIL ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth(feet): / Date Collected:	Units	BBL-MW1 4 - 6 05/02/96	BBL-MW2 4 - 6 05/02/96	BBL-MW3 6 - 8 05/02/96	BBL-MW4 4 - 6 05/03/96	BBL-MW5 4 - 6 05/03/96	BBL-SB1 4 - 6 05/06/96	BBL-SB1 8 - 10 05/06/96	BBL-SB2 0 - 2 05/07/96	BBL-SB2 8 - 10 05/07/96	BBL-SB3 6 - 8 05/07/96	BBL-SB3 8 - 10 05/07/96	BBL-SB4 0 - 2 05/07/96	BBL-SB4 8 - 10 05/07/96	BBL-SB5 0 - 2 05/06/96	BBL-SB5 20 - 22 05/06/96
Semivolatiles																
1,2-Dichlorobenzene	mg/kg	0.013 U	0.0058 U	1 U	0.0055 UJ	0.0056 U	0.0057 U	3.5 U	0.0054 U	0.0057 U	0.0059 U	3.7 U	3.4 U	1.6 U	0.006 U	0.0061 U
1,3-Dichlorobenzene	mg/kg	0.013 U	0.0058 U	1 U	0.0055 UJ	0.0056 U	0.0057 U	3.5 U	0.0054 U	0.0057 U	0.0059 U	3.7 U	3.4 U	1.6 U	0.006 U	0.0061 U
1,4-Dichlorobenzene	mg/kg	0.013 U	0.0058 U	1 U	0.0055 UJ	0.0056 U	0.0057 U	3.5 U	0.0054 U	0.0057 U	0.0059 U	3.7 U	3.4 U	1.6 U	0.006 U	0.0061 U
PCBs																
PCB-1016	mg/kg	0.35 U	0.19 U	0.19 U	0.18 U	0.18 U	0.19 U	0.18 U	0.18 U	0.19 U	0.2 U*	0.19 U*	0.18 U	0.21 U	0.2 U	0.2 U
PCB-1221	mg/kg	0.35 U	0.19 U	0.19 U	0.18 U	0.18 U	0.19 U	0.18 U	0.18 U	0.19 U	0.2 U*	0.19 U*	0.18 U	0.21 U	0.2 U	0.2 U
PCB-1232	mg/kg	0.35 U	0.19 U	0.19 U	0.18 U	0.18 U	0.19 U	0.18 U	0.18 U	0.19 U	0.2 U*	0.19 U*	0.18 U	0.21 U	0.2 U	0.2 U
PCB-1242	mg/kg	0.35 U	0.19 U	0.19 U	0.18 U	0.18 U	0.19 U	0.18 U	0.18 U	0.19 U	0.2 U*	0.19 U*	0.18 U	0.21 U	0.2 U	0.2 U
PCB-1248	mg/kg	0.35 U	0.19 U	0.19 U	0.18 U	0.18 U	0.19 U	0.18 U	0.18 U	0.19 U	0.2 U*	0.19 U*	0.18 U	0.21 U	0.2 U	0.2 U
PCB-1254	mg/kg	1.6	0.19 U	0.19 U	0.18 U	0.18 U	0.19 U	0.18 U	0.18 U	0.19 U	0.2 U	0.19 U	0.18 U	0.21 U	0.2 U	0.2 U
PCB-1260	mg/kg	0.35 U	0.19 U	0.19 U	0.18 U	0.18 U	0.19 U	0.18 U	0.18 U	0.19 U	0.2 U	0.19 U	0.18 U	0.21 U	0.83	0.2 U
Total Aroclors	mg/kg	1.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.83	ND
Inorganics																
Lead	mg/kg	38	12	13.2	4.48	2.55	4.39	17.8	28.3	NA	38.2	25.5	14.8	14.9	138	5.17

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TABLE 2-7
I27.7 AREA
ORGANIC COMPOUNDS SOIL ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet):	Units	BH01-98 1 - 3	BH01-98 5 - 7	BH01-98 9 - 11	BH02-98 1 - 3	BH02-98 5 - 7	BH02-98 9 - 11	BH03-98 1 - 3	BH03-98 3 - 5	BH03-98 5 - 6.5	BH04-98 1 - 3	BH04-98 5 - 7	BH04-98 7 - 7.25
PCBs													
PCB-1016	mg/kg	24 U	2.3 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	2.2 U	2.3 U	0.33 U	2.4 U
PCB-1221	mg/kg	24 U	2.3 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	2.2 U	2.3 U	0.33 U	2.4 U
PCB-1232	mg/kg	24 U	2.3 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	2.2 U	2.3 U	0.33 U	2.4 U
PCB-1242	mg/kg	24 U	2.3 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	2.2 U	2.3 U	0.33 U	2.4 U
PCB-1248	mg/kg	24 U	2.3 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	2.2 U	2.3 U	0.38	11
PCB-1254	mg/kg	100	35	0.4	2	1.5	0.33 U	0.44	0.37	29	42	0.33	8.8
PCB-1260	mg/kg	24 U	2.3 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	2.2 U	2.3 U	0.33 U	2.4 U
Total Aroclors	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE 2-7
I27.7 AREA
ORGANIC COMPOUNDS SOIL ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet):	Units	BH05-98 1 - 3	BH05-98 5 - 7	BH05-98 7 - 9	BH06-98 1 - 3	BH06-98 7 - 9	BH06-98 13 - 15	BH07-98 1 - 3	BH07-98 7 - 9	BH07-98 13 - 15	BH08-98 1 - 3	BH08-98 7 - 9
PCBs												
PCB-1016	mg/kg	50 U	0.33 U	0.33 U	17 U	0.33 U	0.33 U	0.33 U	0.33 U	170 U	0.33 U	0.33 U
PCB-1221	mg/kg	50 U	0.33 U	0.33 U	17 U	0.33 U	0.33 U	0.33 U	0.33 U	170 U	0.33 U	0.33 U
PCB-1232	mg/kg	50 U	0.33 U	0.33 U	17 U	0.33 U	0.33 U	0.33 U	0.33 U	170 U	0.33 U	0.33 U
PCB-1242	mg/kg	50 U	0.33 U	0.33 U	17 U	0.33 U	0.33 U	0.33 U	0.33 U	170 U	0.33 U	0.33 U
PCB-1248	mg/kg	50 U	0.33 U	0.33 U	17 U	0.33 U	0.33 U	0.33 U	0.33 U	170 U	0.33 U	0.33 U
PCB-1254	mg/kg	4,900	3.6	3.9	93	0.33 U	0.33 U	0.33 U	0.33 U	1,500	0.51	0.71
PCB-1260	mg/kg	50 U	0.33 U	0.33 U	17 U	0.33 U	0.33 U	0.33 U	0.33 U	170 U	0.33 U	0.33 U
Total Aroclors	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE 2-8
MELTING DEPARTMENT
PCB SOIL ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Excavated S1155 0 - 0.5 06/17/96	Excavated S1157 0 - 0.5 06/20/96	Excavated S1158 0.5 - 1 06/20/96	Excavated S1159 1-2 06/20/96	Excavated S1160 0 - 0.5 06/20/96	Excavated S1161 0.5 -1 06/20/96	Excavated S1162 1 - 2 06/20/96	Excavated S1163 0 - 0.5 06/20/96	Excavated S1164 0.5 - 1 06/20/96	Excavated S1165 1 - 2 06/20/96	Excavated S1166 0 - 0.5 06/20/96	Excavated S1167 0.5 - 1 06/20/96	Excavated S1168 1 - 2 06/20/96	Excavated S1169 0 - 0.5 06/20/96
PCBs															
PCB-1016	mg/kg	1 U	10 UJ	5 U	1 U	1 U	1 U	1 UJ	5 UJ	10 U	1 UJ	10 U	1 U	5 UJ	1 U
PCB-1221	mg/kg	1 U	10 UJ	5 U	1 U	1 U	1 U	1 UJ	5 UJ	10 U	1 UJ	10 U	1 U	5 UJ	1 U
PCB-1232	mg/kg	1 U	10 UJ	5 U	1 U	1 U	1 U	1 UJ	5 UJ	10 U	1 UJ	10 U	1 U	5 UJ	1 U
PCB-1242	mg/kg	10	91 J	19	8.3	17	5.6	1 UJ	55 J	120	1 UJ	96	2.3	76	1 U
PCB-1248	mg/kg	1 U	10 UJ	5 U	1 U	1 U	1 U	1 UJ	5 UJ	10 U	1 UJ	10 U	1 U	5 UJ	1 U
PCB-1254	mg/kg	1 U	10 UJ	5 U	1 U	1 U	1 U	1 U	5 UJ	10 U	1 U	10 U	1 U	5 UJ	1 U
PCB-1260	mg/kg	1 U	10 UJ	5 U	1 U	1 U	1 U	1 U	5 UJ	10 U	1 U	10 U	1 U	5 UJ	1 U
Total Aroclors	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE 2-8
MELTING DEPARTMENT
PCB SOIL ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Excavated S1170 0.5 - 1 06/20/96	Excavated S1171 1 - 2 06/20/96	Excavated S1172 0 - 0.5 06/20/96	Excavated S1173 0.5 - 1 06/20/96	Excavated S1174 1 - 2 06/20/96	Excavated S1175 0 - 0.5 06/20/96	Excavated S1176 0.5 - 1 06/20/96	Excavated S1177 1 - 2 06/20/96	Excavated S1178 0 - 0.5 06/20/96	Excavated S1179 0.5 - 1 06/20/96	Excavated S1180 1 - 2 06/20/96	Excavated S1181 0 - 0.5 06/20/96	Excavated S1182 0.5 - 1 06/20/96	Excavated S1183 1 - 3 06/20/96
PCBs															
PCB-1016	mg/kg	1 UJ	1 UJ	1 U	1 U	1 U	5 U	10 U	50 U	5 U	1 U	5 U	1 U	1 U	1 U
PCB-1221	mg/kg	1 UJ	1 UJ	1 U	1 U	1 U	5 U	10 U	50 U	5 U	1 U	5 U	1 U	1 U	1 U
PCB-1232	mg/kg	1 UJ	1 UJ	1 U	1 U	1 U	5 U	10 U	50 U	5 U	1 U	5 U	1 U	1 U	1 U
PCB-1242	mg/kg	1 UJ	1 UJ	1.8	6.7	5.8	50	220	640	26	18	40	3.7	4.8	1.4
PCB-1248	mg/kg	1 UJ	1 UJ	1 U	1 U	1 U	5 U	10 U	50 U	5 U	1 U	5 U	1 U	1 U	1 U
PCB-1254	mg/kg	1 U	1 U	1 U	1 U	1 U	5 U	10 U	50 U	5 U	1 U	5 U	1 U	1 U	1 U
PCB-1260	mg/kg	1 U	1 U	1 U	1 U	1 U	5 U	10 U	50 U	5 U	1 U	5 U	1 U	1 U	1 U
Total Aroclors	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE 2-8
MELTING DEPARTMENT
PCB SOIL ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	S1184 3 - 5 07/09/96	S1185 3 - 5 07/09/96	S1186 3 - 5 07/09/96	S1187 3 - 5 07/09/96	S1188 3 - 5 06/15/96	S1189 3 - 5 06/15/96	Excavated S2031 0 - 0.5 09/06/96	Excavated S2032 0 - 0.5 09/06/96	Excavated S2033 0 - 0.5 09/06/96	Excavated S2034 0 - 0.5 09/06/96	Excavated S2035 0 - 0.5 09/06/96	Excavated S2036 0 - 0.5 09/06/96	S2037 3 - 5 09/24/96	S2038 3 - 5 09/24/96
PCBs															
PCB-1016	mg/kg	1 U	1 U	1 U	1 U	10 U	1 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
PCB-1221	mg/kg	1 U	1 U	1 U	1 U	10 U	1 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
PCB-1232	mg/kg	1 U	1 U	1 U	1 U	10 U	1 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
PCB-1242	mg/kg	1 U	1 U	1 U	1 U	41	1.3	7.5	360	650	27	1.9	12.7	1 U	1 U
PCB-1248	mg/kg	1 U	1 U	1 U	1 U	10 U	1 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1
PCB-1254	mg/kg	1 U	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
PCB-1260	mg/kg	1 U	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Total Aroclors	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE 2-8
MELTING DEPARTMENT
PCB SOIL ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	S3043 0 - 0.5 11/27/96	S3044 0 - 0.5 11/27/96	S3045 0 - 0.5 11/27/96	S3046 0 - 0.5 11/27/96	S3047 0 - 0.5 11/27/96	S3048 0 - 0.5 11/27/96
PCBs							
PCB-1016	mg/kg	1 U	1 U	1 U	1 U	1 U	1 U
PCB-1221	mg/kg	1 U	1 U	1 U	1 U	1 U	1 U
PCB-1232	mg/kg	1 U	1 U	1 U	1 U	1 U	1 U
PCB-1242	mg/kg	6.3	1 U	1.4	3.1	1 U	2.1
PCB-1248	mg/kg	1 U	1 U	1 U	1 U	1 U	1 U
PCB-1254	mg/kg	1 U	0.67	1 UJ	1 UJ	1 UJ	1 UJ
PCB-1260	mg/kg	1 U	1 U	1 UJ	1 UJ	1 UJ	1 UJ
Total Aroclors	mg/kg	NA	NA	NA	NA	NA	NA

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TABLE 2-9
PREVIOUS METAL FEEDSTOCK AREA
ORGANIC COMPOUNDS SOIL ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth(feet): / Date Collected:	Units	FS-1 0 - 1 06/12/95	FS-2 0 - 1 06/12/95	FS-3 0 - 1 06/12/95	FS-4 0 - 1 06/12/95	FS-5 0 - 1 06/12/95	FS-6 0 - 1 06/12/95	FS-7 0 - 1 06/12/95	FS-8 0 - 1 06/12/95	SB-304 0 - 1 02/08/95	SB-304 2 - 4 02/08/95	SB-304 6 - 8 02/08/95	SB-305 0 - 1 02/08/95	SB-305 2 - 4 02/08/95	SB-305 10 -12 02/08/95	SB-305 6 - 8 02/08/95	SB-352 0 - 2 06/28/95
Volatiles																	
1,1,1,2-Tetrachloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0069 U	NA	NA
1,1,1-Trichloroethane	mg/kg	0.0054 U	0.0054 U	0.0056 U	0.0056 U	0.0054 U	0.0051 U [0.0051 U]	0.0054 U	0.0052 U	0.0054 U	0.0053 U	0.0063 U	0.0056 U	0.0054 U	0.0069 U	0.0056 U	0.0056 U
1,1,2,2-Tetrachloroethane	mg/kg	0.0054 U	0.0054 U	0.0056 U	0.0056 U	0.0054 U	0.0051 U [0.0051 U]	0.0054 UJ	0.0052 U	0.0054 U	0.0053 U	0.0063 U	0.0056 UJ	0.0054 U	0.0069 U	0.0056 U	0.0056 U
1,1,2-Trichloroethane	mg/kg	0.0054 U	0.0054 U	0.0056 U	0.0056 U	0.0054 U	0.0051 U [0.0051 U]	0.0054 U	0.0052 U	0.0054 U	0.0053 U	0.0063 U	0.0056 U	0.0054 U	0.0069 U	0.0056 U	0.0056 U
1,1-Dichloroethane	mg/kg	0.0054 U	0.0054 U	0.0056 U	0.0056 U	0.0054 U	0.0051 U [0.0051 U]	0.0054 U	0.0052 U	0.0054 U	0.0053 U	0.0063 U	0.0056 U	0.0054 U	0.0069 U	0.0056 U	0.0056 U
1,1-Dichloroethene	mg/kg	0.0054 U	0.0054 U	0.0056 U	0.0056 U	0.0054 U	0.0051 U [0.0051 U]	0.0054 U	0.0052 U	0.0054 U	0.0053 U	0.0063 U	0.0056 U	0.0054 U	0.0069 U	0.0056 U	0.0056 U
1,2,3-Trichloropropane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0069 U	NA	NA
1,2-Dibromo-3-chloropropane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.014 UJ	NA	NA
1,2-Dibromoethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0069 U	NA	NA
1,2-Dichloroethane	mg/kg	0.0054 U	0.0054 U	0.0056 U	0.0056 U	0.0054 U	0.0051 U [0.0051 U]	0.0054 U	0.0052 U	0.0054 U	0.0053 U	0.0063 U	0.0056 U	0.0054 U	0.0069 U	0.0056 U	0.0056 U
1,2-Dichloroethene, Total	mg/kg	0.0054 U	0.0054 U	0.0056 U	0.0056 U	0.0054 U	0.0051 U [0.0051 U]	0.0054 U	0.0052 U	0.0054 U	0.0053 U	0.0063 U	0.0056 U	0.0054 U	0.0069 U	0.0056 U	0.0056 U
1,2-Dichloropropane	mg/kg	0.0054 U	0.0054 U	0.0056 U	0.0056 U	0.0054 U	0.0051 U [0.0051 U]	0.0054 U	0.0052 U	0.0054 U	0.0053 U	0.0063 U	0.0056 U	0.0054 U	0.0069 U	0.0056 U	0.0056 U
1,4-Dioxane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.4 U	NA	NA
2-Butanone	mg/kg	0.054 U	0.054 U	0.056 U	0.056 U	0.054 U	0.051 U [0.051 U]	0.054 U	0.052 U	0.054 U	0.053 U	0.063 U	0.056 UJ	0.054 U	0.012 J	0.056 U	0.0036 J
2-Chloro-1,3-butadiene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0069 U	NA	NA
2-Hexanone	mg/kg	0.054 U	0.054 U	0.056 U	0.056 U	0.054 U	0.051 U [0.051 U]	0.054 UJ	0.052 U	0.054 U	0.053 U	0.063 U	0.056 UJ	0.054 U	0.069 U	0.056 U	0.056 U
3-Chloro-1-propene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.007 UJ	NA	NA
4-Methyl-2-pentanone	mg/kg	0.054 U	0.054 U	0.056 U	0.056 U	0.054 U	0.051 U [0.051 U]	0.054 U	0.052 U	0.054 U	0.053 U	0.063 U	0.056 UJ	0.054 U	0.069 U	0.056 U	0.056 U
Acetone	mg/kg	0.054 UJ	0.054 UJ	0.056 UJ	0.056 UJ	0.054 UJ	0.051 UJ [0.0096 UJ]	0.054 UJ	0.052 UJ	0.054 U	0.0053 U	0.0092 U	0.056 UJ	0.054 U	0.063 JB	0.034 JB	0.017 J
Acetonitrile	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.069 UJ	NA	NA
Acrolein	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.069 UJ	NA	NA
Acrylonitrile	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.069 U	NA	NA
Benzene	mg/kg	0.0054 U	0.0054 U	0.0056 U	0.0056 U	0.0054 U	0.0051 U [0.0051 U]	0.0054 U	0.0052 U	0.0054 U	0.0053 U	0.0063 U	0.0056 U	0.0054 U	0.0069 U	0.0056 U	0.0017 J
Bromodichloromethane	mg/kg	0.0054 U	0.0054 U	0.0056 U	0.0056 U	0.0054 U	0.0051 U [0.0051 U]	0.0054 U	0.0052 U	0.0054 U	0.0053 U	0.0063 U	0.0056 U	0.0054 U	0.0069 U	0.0056 U	0.0056 U
Bromoform	mg/kg	0.0054 U	0.0054 U	0.0056 U	0.0056 U	0.0054 U	0.0051 U [0.0051 U]	0.0054 U	0.0052 U	0.0054 U	0.0053 U	0.0063 U	0.0056 U	0.0054 U	0.0069 U	0.0056 U	0.0056 U
Bromomethane	mg/kg	0.0054 U	0.0054 U	0.0056 UJ	0.0056 U	0.0054 U	0.0051 U [0.0051 U]	0.0054 U	0.0052 U	0.0054 U	0.0053 U	0.0063 U	0.0056 U	0.0054 U	0.0069 U	0.0056 U	0.0056 U
Carbon disulfide	mg/kg	0.0054 U	0.0054 U	0.0056 U	0.0056 U	0.0054 U	0.0051 U [0.0051 U]	0.0054 U	0.0052 U	0.0054 U	0.0053 U	0.0063 U	0.0056 U	0.0054 U	0.0069 U	0.0056 U	0.0015 J
Carbon tetrachloride	mg/kg	0.0054 U	0.0054 U	0.0056 U	0.0056 U	0.0054 U	0.0051 U [0.0051 U]	0.0054 U	0.0052 U	0.0054 U	0.0053 U	0.0063 U	0.0056 U	0.0054 U	0.0069 U	0.0056 U	0.0056 U
Chlorobenzene	mg/kg	0.0054 U	0.0054 U	0.0056 U	0.0056 U	0.0054 U	0.0051 U [0.0051 U]	0.0054 UJ	0.0052 U	0.0054 U	0.0053 U	0.0063 U	0.0056 UJ	0.0054 U	0.0069 U	0.0056 U	0.0056 U
Chlorodibromomethane	mg/kg	0.0054 U	0.0054 U	0.0056 U	0.0056 U	0.0054 U	0.0051 U [0.0051 U]	0.0054 U	0.0052 U	0.0054 U	0.0053 U	0.0063 U	0.0056 U	0.0054 U	0.0069 U	0.0056 U	0.0056 U
Chloroethane	mg/kg	0.0054 U	0.0054 U	0.0056 U	0.0056 U	0.0054 U	0.0051 U [0.0051 UJ]	0.0054 U	0.0052 U	0.0054 U	0.0053 U	0.0063 U	0.0056 U	0.0054 U	0.0069 U	0.0056 U	0.0056 U
Chloroform	mg/kg	0.0054 U	0.0054 U	0.0056 U	0.0056 U	0.0054 U	0.0051 U [0.0051 U]	0.0054 U	0.0052 U	0.0054 U	0.0053 U	0.0063 U	0.0056 U	0.0054 U	0.0069 U	0.0056 U	0.0056 U
Chloromethane	mg/kg	0.0054 UJ	0.0054 UJ	0.0056 U	0.0056 UJ	0.0054 UJ	0.0051 UJ [0.0051 UJ]	0.0054 UJ	0.0052 UJ	0.0054 U	0.0053 U	0.0063 U	0.0056 U	0.0054 U	0.0069 U	0.0056 U	0.0056 U
cis-1,2-Dichloroethene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0069 U	NA	NA
cis-1,3-Dichloropropene	mg/kg	0.0054 U	0.0054 U	0.0056 U	0.0056 U	0.0054 U	0.0051 U [0.0051 U]	0.0054 U	0.0052 U	0.0054 U	0.0053 U	0.0063 U	0.0056 U	0.0054 U	0.0069 U	0.0056 U	0.0056 U
Dibromomethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0069 U	NA	NA
Dichlorodifluoromethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0069 U	NA	NA
Ethylbenzene	mg/kg	0.0054 U	0.0054 U	0.0056 U	0.0056 U	0.0054 U	0.0051 U [0.0051 U]	0.0054 UJ	0.0052 U	0.0054 U	0.0053 U	0.0063 U	0.0056 UJ	0.0054 U	0.0069 U	0.0056 U	0.0056 U
Iodomethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.014 U	NA	NA
Isobutyl alcohol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.69 U	NA	NA
Methacrylonitrile	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.027 U	NA	NA
Methyl methacrylate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0069 U	NA	NA
Methylene chloride	mg/kg	0.005 U	0.0067 U	0.009 UJ	0.004 U	0.0067 UJ	0.014 UJ [0.0095 UJ]	0.012 U	0.0081 UJ	0.0086 U	0.008 U	0.0064 U	0.032 J	0.019 U	0.0069 U	0.013 U	0.0019 J
Propionitrile	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.027 U	NA	NA
Pyridine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA	NA

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TABLE 2-9
PREVIOUS METAL FEEDSTOCK AREA
ORGANIC COMPOUNDS SOIL ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID:		FS-1	FS-2	FS-3	FS-4	FS-5	FS-6	FS-7	FS-8	SB-304	SB-304	SB-304	SB-305	SB-305	SB-305	SB-305	SB-352
Sample Depth(feet):		0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	2 - 4	6 - 8	0 - 1	2 - 4	10 -12	6 - 8	0 - 2
Date Collected:	Units	06/12/95	06/12/95	06/12/95	06/12/95	06/12/95	06/12/95	06/12/95	06/12/95	02/08/95	02/08/95	02/08/95	02/08/95	02/08/95	02/08/95	02/08/95	06/28/95
Volatiles (Cont'd.)																	
Styrene	mg/kg	0.0054 U	0.0054 U	0.0056 U	0.0056 U	0.0054 U	0.0051 U [0.0051 U]	0.0054 UJ	0.0052 U	0.0054 U	0.0053 U	0.0063 U	0.0056 UJ	0.0054 U	0.0069 U	0.0056 U	0.0056 U
Tetrachloroethene	mg/kg	0.0054 U	0.0054 U	0.0056 U	0.0056 U	0.0054 U	0.0051 U [0.0051 U]	0.0054 UJ	0.0052 U	0.0054 U	0.0053 U	0.0063 U	0.0056 UJ	0.0054 U	0.0069 U	0.0056 U	0.0016 J
Toluene	mg/kg	0.0054 U	0.013 J	0.0052 U	0.0023 U	0.0086 UJ	0.025 J [0.026 J]	0.008 UJ	0.026 J	0.0054 U	0.0053 U	0.0063 U	0.0056 UJ	0.0054 U	0.017	0.025	0.048
trans-1,2-Dichloroethene	mg/kg	0.0054 U	0.0054 U	0.0056 U	0.0056 U	0.0054 U	0.0051 U [0.0051 U]	0.0054 U	0.0052 U	0.0054 U	0.0053 U	0.0063 U	0.0056 U	0.0054 U	0.0069 U	0.0056 U	0.0056 U
trans-1,3-Dichloropropene	mg/kg	0.0054 U	0.0054 U	0.0056 U	0.0056 U	0.0054 U	0.0051 U [0.0051 U]	0.0054 U	0.0052 U	0.0054 U	0.0053 U	0.0063 U	0.0056 U	0.0054 U	0.0069 U	0.0056 U	0.0056 U
trans-1,4-Dichloro-2-butene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0069 UJ	NA	NA
Trichloroethene	mg/kg	0.0054 U	0.0054 U	0.0056 U	0.0056 U	0.0054 U	0.0051 U [0.0051 U]	0.0054 U	0.0052 U	0.0054 U	0.0053 U	0.0063 U	0.0056 U	0.0054 U	0.0069 U	0.0056 U	0.0056 U
Trichlorofluoromethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.007 UJ	NA	NA
Vinyl acetate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.069 U	NA	NA
Vinyl chloride	mg/kg	0.0054 U	0.0054 U	0.0056 U	0.0056 U	0.0054 U	0.0051 U [0.0051 U]	0.0054 U	0.0052 U	0.0054 U	0.0053 U	0.0063 U	0.0056 U	0.0054 U	0.0069 U	0.0056 U	0.0056 U
Xylenes, Total	mg/kg	0.0054 U	0.0054 U	0.0056 U	0.0056 U	0.0054 U	0.0051 U [0.0051 U]	0.0054 UJ	0.0052 U	0.0054 U	0.0053 U	0.0063 U	0.0056 UJ	0.0054 U	0.0069 U	0.0056 U	0.002 J
Semivolatiles																	
1,2,3,4-Tetrachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,5-Tetrachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4,5-Tetrachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA	NA
1,2,4-Trichlorobenzene	mg/kg	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	0.17 U [0.17 U]	0.18 U	0.17 U	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.23 U	0.18 U	0.9 U
1,2-Dichlorobenzene	mg/kg	0.0054 U	0.0054 U	0.0056 U	0.0056 U	0.0054 U	0.0051 U [0.0051 U]	0.0054 UJ	0.0052 U	0.0054 U	0.0053 U	0.0063 U	0.0056 UJ	0.0054 U	0.0069 U	0.0056 U	0.0024 J
1,2-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	R	NA	NA
1,3-Dichlorobenzene	mg/kg	0.0054 U	0.0054 U	0.0056 U	0.0056 U	0.0054 U	0.0051 U [0.0051 U]	0.0054 UJ	0.0052 U	0.0054 U	0.0053 U	0.0063 U	0.0056 UJ	0.0054 U	0.0069 U	0.0056 U	0.0055 U
1,3-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA	NA
1,4-Dichlorobenzene	mg/kg	0.0054 U	0.0054 U	0.0056 U	0.0056 U	0.0054 U	0.0051 U [0.0051 U]	0.0054 UJ	0.0052 U	0.0054 U	0.0053 U	0.0063 U	0.0056 UJ	0.0054 U	0.0069 U	0.0056 U	0.0055 U
1,4-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.5 UJ	NA	NA
1-Naphthylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA	NA
2,2'-oxybis(dichloropropane)	mg/kg	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	0.17 U [0.17 U]	0.18 U	0.17 U	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.23 U	0.18 U	0.9 U
2,3,4,6-Tetrachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.1 U	NA	NA
2,4,5-Trichlorophenol	mg/kg	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	0.17 U [0.17 U]	0.18 U	0.17 U	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.23 U	0.18 U	0.9 U
2,4,6-Trichlorophenol	mg/kg	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	0.17 U [0.17 U]	0.18 U	0.17 U	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.23 U	0.18 U	0.9 U
2,4-Dichlorophenol	mg/kg	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	0.17 U [0.17 U]	0.18 U	0.17 U	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.23 U	0.18 U	0.9 U
2,4-Dimethylphenol	mg/kg	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	0.17 U [0.17 U]	0.18 U	0.17 U	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.23 U	0.18 U	0.9 U
2,4-Dinitrophenol	mg/kg	3.4 U	0.87 U	0.9 U	0.89 UJ	0.86 U	0.82 U [0.82 U]	0.86 U	0.84 U	0.86 U	0.85 U	1 U	0.9 U	0.86 U	1.1 U	0.89 U	4.4 U
2,4-Toluenediamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 UJ	NA	NA
2,6-Dichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA	NA
2,6-Dinitrotoluene	mg/kg	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	0.17 U [0.17 U]	0.18 U	0.17 U	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.23 U	0.18 U	0.9 U
2-Acetylaminofluorene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.45 U	NA	NA
2-Chloronaphthalene	mg/kg	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	0.17 U [0.17 U]	0.18 U	0.17 U	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.23 U	0.18 U	0.9 U
2-Chlorophenol	mg/kg	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	0.17 U [0.17 U]	0.18 U	0.17 U	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.23 U	0.18 U	0.9 U
2-Methylnaphthalene	mg/kg	0.26 J	0.14 J	0.24	0.3	0.13 J	0.11 J [0.2]	0.24	0.22	0.07 J	0.18 U	0.058 J	0.12 J	0.14 J	0.23 U	0.84	0.9 U
2,4-Dinitrotoluene	mg/kg	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	0.17 U [0.17 U]	0.18 U	0.17 U	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.23 U	0.18 U	0.9 U
2-Methylphenol	mg/kg	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	0.17 U [0.17 U]	0.18 U	0.17 U	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.23 U	0.18 U	0.9 U
2-Naphthylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA	NA
2-Nitroaniline	mg/kg	3.4 U	0.87 U	0.9 U	0.89 U	0.86 U	0.82 U [0.82 U]	0.86 U	0.84 U	0.86 U	0.85 U	1 U	0.9 U	0.86 U	1.1 U	0.89 U	4.4 U
2-Nitrophenol	mg/kg	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	0.17 U [0.17 U]	0.18 U	0.17 U	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.23 U	0.18 U	0.9 U

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TABLE 2-9
PREVIOUS METAL FEEDSTOCK AREA
ORGANIC COMPOUNDS SOIL ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth(feet): / Date Collected:	Units	FS-1 0 - 1 06/12/95	FS-2 0 - 1 06/12/95	FS-3 0 - 1 06/12/95	FS-4 0 - 1 06/12/95	FS-5 0 - 1 06/12/95	FS-6 0 - 1 06/12/95	FS-7 0 - 1 06/12/95	FS-8 0 - 1 06/12/95	SB-304 0 - 1 02/08/95	SB-304 2 - 4 02/08/95	SB-304 6 - 8 02/08/95	SB-305 0 - 1 02/08/95	SB-305 2 - 4 02/08/95	SB-305 10 -12 02/08/95	SB-305 6 - 8 02/08/95	SB-352 0 - 2 06/28/95
Semivolatiles (Cont'd.)																	
2-Picoline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.45 U	NA	NA
3,3'-Dichlorobenzidine	mg/kg	1.4 U	0.36 U	0.37 U	0.37 U	0.36 U	0.34 U [0.34 U]	0.35 U	0.35 U	0.36 U	0.35 U	0.41 U	0.37 U	0.35 U	0.45 U	0.37 U	1.8 U
3,3'-Dimethylbenzidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.1 U	NA	NA
3-Methylcholanthrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.3 U	NA	NA
3-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA	NA
3-Nitroaniline	mg/kg	3.4 U	0.87 U	0.9 U	0.89 U	0.86 U	0.82 U [0.82 U]	0.86 U	0.84 U	0.86 U	0.85 U	1 U	0.9 U	0.86 U	1.1 U	0.89 U	4.4 U
4,6-Dinitro-2-methylphenol	mg/kg	3.4 U	0.87 U	0.9 U	0.89 U	0.86 U	0.82 U [0.82 U]	0.86 U	0.84 U	0.86 U	0.85 U	1 U	0.9 U	0.86 U	1.1 U	0.89 U	4.4 U
4-Aminobiphenyl	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.1 U	NA	NA
4-Bromophenyl phenyl ether	mg/kg	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	0.17 U [0.17 U]	0.18 U	0.17 U	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.23 U	0.18 U	0.9 U
4-Chloro-3-methylphenol	mg/kg	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	0.17 U [0.17 U]	0.18 U	0.17 U	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.23 U	0.18 U	0.9 U
4-Chloroaniline	mg/kg	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	0.17 U [0.17 U]	0.053 J	0.17 U	0.18 U	0.35 U	0.21 U	0.19 U	0.18 U	0.23 U	0.18 U	0.9 U
4-Chlorophenyl phenyl ether	mg/kg	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	0.17 U [0.17 U]	0.18 U	0.17 U	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.23 U	0.18 U	0.9 U
4-Methylphenol	mg/kg	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	0.17 U [0.17 U]	0.18 U	0.17 U	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.23 U	0.042 J	0.9 U
4-Nitroaniline	mg/kg	3.4 UJ	0.87 U	0.9 UJ	0.89 UJ	0.86 U	0.82 U [0.82 U]	0.86 U	0.84 U	0.86 U	0.85 U	1 U	0.9 U	0.86 U	1.1 U	0.89 U	4.4 U
4-Nitrophenol	mg/kg	3.4 UJ	0.87 U	0.9 UJ	0.89 UJ	0.86 U	0.82 U [0.82 U]	0.86 U	0.84 U	0.86 U	0.85 U	1 U	0.9 U	0.86 U	1.1 U	0.89 U	4.4 U
4-Nitroquinoline1-oxide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.3 U	NA	NA
5-Nitro-o-toluidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA	NA
7,12-Dimethylbenz(a)anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.3 U	NA	NA
Acenaphthene	mg/kg	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	0.17 U [0.17 U]	0.18 U	0.17 U	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.23 U	0.052 J	0.9 U
Acenaphthylene	mg/kg	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	0.17 U [0.17 U]	0.18 U	0.17 U	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.23 U	0.18 U	0.9 U
Acetophenone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA	NA
alpha,alpha-Dimethyl phenethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.2 U	NA	NA
Aniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA	NA
Anthracene	mg/kg	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	0.17 U [0.17 U]	0.11 J	0.17 U	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.23 U	0.041 J	0.9 U
Aramite	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.1 UJ	NA	NA
Benzidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 UJ	NA	NA
Benzo(a)anthracene	mg/kg	0.71 U	0.18 U	0.033 J	0.028 J	0.18 U	0.17 U [0.17 U]	0.18 U	0.17 U	0.04 J	0.053 J	0.21 U	0.19 U	0.18 U	0.23 U	0.038 J	0.9 U
Benzo(a)pyrene	mg/kg	0.17 J	0.18 U	0.18 UJ	0.18 U	0.18 U	0.17 U [0.17 U]	0.18 U	0.17 U	0.032 J	0.055 J	0.21 UJ	0.19 U	0.18 U	0.23 U	0.18 U	0.9 U
Benzo(b)fluoranthene	mg/kg	0.47 J	0.18 U	0.18 UJ	0.18 U	0.18 U	0.17 U [0.17 U]	0.18 U	0.17 U	0.056 J	0.088 J	0.21 U	0.19 U	0.18 U	0.23 U	0.042 J	0.9 U
Benzo(g,h,i)perylene	mg/kg	0.71 UJ	0.18 U	0.18 UJ	0.18 U	0.18 U	0.17 U [0.17 U]	0.18 U	0.17 U	0.022 J	0.031 J	0.21 UJ	0.19 UJ	0.18 UJ	0.23 UJ	0.18 UJ	0.9 U
Benzo(k)fluoranthene	mg/kg	0.71 UJ	0.18 U	0.18 UJ	0.18 U	0.18 U	0.17 U [0.17 U]	0.18 U	0.17 U	0.02 J	0.18 U	0.21 U	0.19 U	0.18 U	0.23 U	0.18 U	0.9 U
Benzyl alcohol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA	NA
bis(2-Chloroethoxy)methane	mg/kg	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	0.17 U [0.17 U]	0.18 U	0.17 U	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.23 U	0.18 U	0.9 U
bis(2-Chloroethyl)ether	mg/kg	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	0.17 U [0.17 U]	0.18 U	0.17 U	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.23 U	0.18 U	0.9 U
bis(2-Ethylhexyl)phthalate	mg/kg	0.71 U	0.18 U	0.48	0.18 U	0.18 U	0.17 U [0.17 U]	0.18 U	0.17 U	0.18 U	4.3	0.21 U	0.19 U	0.18 U	0.23 U	0.18 U	0.9 U
Butyl benzyl phthalate	mg/kg	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	0.17 U [0.17 U]	0.18 U	0.17 U	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.23 U	0.18 U	0.9 U
Carbazole	mg/kg	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	0.17 U [0.17 U]	0.18 U	0.17 U	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.23 U	0.18 U	0.9 U
Chrysene	mg/kg	0.26 J	0.18 U	0.061 J	0.039 J	0.18 U	0.17 U [0.17 U]	0.18 U	0.17 U	0.064 J	0.077 J	0.21 U	0.19 U	0.026 J	0.23 U	0.068 J	0.9 U
Diallate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA	NA
Dibenz(a,h)anthracene	mg/kg	0.71 UJ	0.18 U	0.18 UJ	0.18 U	0.18 U	0.17 U [0.17 U]	0.18 U	0.17 U	0.18 UJ	0.18 UJ	0.21 UJ	0.19 UJ	0.18 UJ	0.23 UJ	0.18 UJ	0.9 U
Dibenzofuran	mg/kg	0.71 U	0.18 U	0.044 J	0.046 J	0.18 U	0.17 U [0.046 J]	0.047 J	0.04 J	0.019 J	0.18 U	0.21 U	0.027 J	0.18 U	0.23 U	0.058 J	0.9 U
Diethyl phthalate	mg/kg	0.71 U	0.18 U	0.18 U	0.18 UJ	0.18 U	0.17 U [0.17 U]	0.18 U	0.17 U	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.23 U	0.18 U	0.9 U
Dimethyl phthalate	mg/kg	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	0.17 U [0.17 U]	0.18 U	0.17 U	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.23 U	0.18 U	0.9 U

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TABLE 2-9
PREVIOUS METAL FEEDSTOCK AREA
ORGANIC COMPOUNDS SOIL ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth(feet): / Date Collected:	Units	FS-1 0 - 1 06/12/95	FS-2 0 - 1 06/12/95	FS-3 0 - 1 06/12/95	FS-4 0 - 1 06/12/95	FS-5 0 - 1 06/12/95	FS-6 0 - 1 06/12/95	FS-7 0 - 1 06/12/95	FS-8 0 - 1 06/12/95	SB-304 0 - 1 02/08/95	SB-304 2 - 4 02/08/95	SB-304 6 - 8 02/08/95	SB-305 0 - 1 02/08/95	SB-305 2 - 4 02/08/95	SB-305 10 -12 02/08/95	SB-305 6 - 8 02/08/95	SB-352 0 - 2 06/28/95
Semivolatiles (Cont'd.)																	
Di-n-butyl phthalate	mg/kg	0.71 U	0.02 J	0.23	0.16 J	0.18 U	0.17 U [0.17 U]	0.18 U	0.021 J	0.18 U	0.18 U	0.21 U	0.18 U	0.18 U	0.23 U	0.18 U	5.2
Di-n-octyl phthalate	mg/kg	0.71 UJ	0.18 U	0.18 UJ	0.18 U	0.18 U	0.17 U [0.17 U]	0.18 U	0.17 U	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.23 U	0.18 U	0.9 U
Diphenylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA	NA
Ethyl methacrylate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0069 U	NA	NA
Ethyl methanesulfonate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA	NA
Fluoranthene	mg/kg	0.21 J	0.18 U	0.067 J	0.04 J	0.18 U	0.17 U [0.17 U]	0.18 U	0.17 U	0.074 J	0.095 J	0.21 U	0.19 U	0.032 J	0.23 U	0.072 J	0.9 U
Fluorene	mg/kg	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	0.17 U [0.17 U]	0.18 U	0.17 U	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.23 U	0.11 J	0.9 U
Hexachlorobenzene	mg/kg	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	0.17 U [0.17 U]	0.18 U	0.17 U	0.18 U	0.11 J	0.21 U	0.19 U	0.18 U	0.23 U	0.18 U	0.9 U
Hexachlorobutadiene	mg/kg	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	0.17 U [0.17 U]	0.18 U	0.17 U	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.23 U	0.18 U	0.9 U
Hexachlorocyclopentadiene	mg/kg	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	0.17 U [0.17 U]	0.18 U	0.17 U	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.23 U	0.18 U	0.9 U
Hexachloroethane	mg/kg	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	0.17 U [0.17 U]	0.18 U	0.17 U	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.23 U	0.18 U	0.9 U
Hexachlorophene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 UJ	NA	NA
Hexachloropropene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.3 U	NA	NA
Indeno(1,2,3-cd)pyrene	mg/kg	0.71 UJ	0.18 U	0.18 UJ	0.18 UJ	0.18 U	0.17 U [0.17 U]	0.18 U	0.17 U	0.021 J	0.028 J	0.21 UJ	0.19 UJ	0.18 UJ	0.23 U	0.18 UJ	0.9 U
Isophorone	mg/kg	0.39 J	0.65	0.68	0.093 J	0.18 U	0.17 U [0.17 U]	0.25	0.96	0.18 U	0.18 U	0.21 U	0.21	0.38	0.23 U	0.18 U	0.86 J
Isosafrole, Total	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA	NA
Methapyrilene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.3 U	NA	NA
Methyl methanesulfonate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA	NA
Naphthalene	mg/kg	0.2 J	0.093 J	0.15 J	0.17 J	0.097 J	0.086 J [0.14 J]	0.17 J	0.16 J	0.048 J	0.18 U	0.042 J	0.097 J	0.085 J	0.23 U	0.63	0.9 U
Nitrobenzene	mg/kg	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	0.17 U [0.17 U]	0.18 U	0.17 U	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.23 U	0.18 U	0.9 U
N-Nitrosodiethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA	NA
N-Nitrosodimethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA	NA
N-Nitrosodi-n-butylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA	NA
N-Nitroso-di-n-propylamine	mg/kg	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	0.17 U [0.17 U]	0.18 U	0.17 U	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.23 U	0.18 U	0.9 U
N-Nitrosodiphenylamine	mg/kg	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	0.17 U [0.17 U]	0.18 U	0.17 U	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.23 U	0.18 U	0.9 U
N-Nitrosomethylethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA	NA
N-Nitrosomorpholine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA	NA
N-Nitrosopiperidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA	NA
N-Nitrosopyrrolidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA	NA
o-Toluidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA	NA
p-Chlorobenzilate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA	NA
p-Dimethylaminoazobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.45 U	NA	NA
Pentachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA	NA
Pentachloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.1 U	NA	NA
Pentachloronitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.1 U	NA	NA
Pentachlorophenol	mg/kg	3.4 U	0.87 U	0.9 U	0.89 UJ	0.86 U	0.82 U [0.82 U]	0.86 U	0.84 U	0.86 U	0.85 U	1 U	0.9 U	0.86 U	1.1 U	0.89 U	4.4 U
Phenacetin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.1 U	NA	NA
Phenanthrene	mg/kg	0.17 J	0.087 J	0.13 J	0.11 J	0.061 J	0.06 J [0.11 J]	0.1 J	0.11 J	0.092 J	0.056 J	0.047 J	0.078 J	0.076 J	0.23 U	0.28	0.29 J
Phenol	mg/kg	0.14 J	0.06 J	0.12 J	0.18 J	0.18 U	0.17 U [0.17 U]	0.024 J	0.072 J	0.18 U	0.18 U	0.21 U	0.032 J	0.18 U	0.23 U	0.18 U	0.9 U
p-Phenylene diamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.1 U	NA	NA

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TABLE 2-9
PREVIOUS METAL FEEDSTOCK AREA
ORGANIC COMPOUNDS SOIL ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth(feet): / Date Collected:	Units	FS-1 0 - 1 06/12/95	FS-2 0 - 1 06/12/95	FS-3 0 - 1 06/12/95	FS-4 0 - 1 06/12/95	FS-5 0 - 1 06/12/95	FS-6 0 - 1 06/12/95	FS-7 0 - 1 06/12/95	FS-8 0 - 1 06/12/95	SB-304 0 - 1 02/08/95	SB-304 2 - 4 02/08/95	SB-304 6 - 8 02/08/95	SB-305 0 - 1 02/08/95	SB-305 2 - 4 02/08/95	SB-305 10 -12 02/08/95	SB-305 6 - 8 02/08/95	SB-352 0 - 2 06/28/95
Semivolatiles (Cont'd.)																	
Pronamide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.45 U	NA	NA
Pyrene	mg/kg	0.55 J	0.18 U	0.088 J	0.047 J	0.18 U	0.17 U [0.17 U]	0.18 U	0.17 U	0.057 J	0.072 J	0.024 J	0.19 U	0.027 J	0.23 U	0.09 J	0.9 U
Safrole, Total	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA	NA
Tetraethyl Dithiopyrophosphate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.1 U	NA	NA
Semivolatiles-TCLP																	
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40 U
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40 U
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40 U
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40 U
Cresols, Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40 U
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40 U
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40 U
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40 U
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	200 U
PCBs																	
PCB-1016	mg/kg	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.17 U [0.17 U]	0.18 U	0.17 U	0.18 U	0.18 U	0.21 UJ	0.19 U	0.18 U	0.23 U	0.18 UJ	0.036 U
PCB-1221	mg/kg	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.17 U [0.17 U]	0.18 U	0.17 U	0.18 U	0.18 U	0.21 UJ	0.19 U	0.18 U	0.23 U	0.18 UJ	0.036 U
PCB-1232	mg/kg	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.17 U [0.17 U]	0.18 U	0.17 U	0.18 U	0.18 U	0.21 UJ	0.19 U	0.18 U	0.23 U	0.18 UJ	0.036 U
PCB-1242	mg/kg	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.17 U [0.17 U]	0.18 U	0.17 U	0.18 U	0.18 U	0.21 UJ	0.19 U	0.18 U	0.23 U	0.18 UJ	0.036 U
PCB-1248	mg/kg	0.18 U	0.18 U	0.18 U	0.18 U	0.25	0.17 U [0.17 U]	0.18 U	0.17 U	0.18 U	0.18 U	0.21 UJ	0.19 U	0.18 U	0.23 U	0.18 UJ	0.33
PCB-1254	mg/kg	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.17 U [0.17 U]	0.18 U	0.17 U	1.6	1	0.21 UJ	0.19 U	0.97	0.23 U	0.18 UJ	0.32
PCB-1260	mg/kg	0.24	0.18	0.36	0.05 J	0.18 U	0.02 J [0.02 J]	0.18 U	0.02 J	0.36 U	0.35 U	0.21 UJ	0.19 U	0.36 U	0.23 U	0.18 UJ	0.036 U
Total Aroclors	mg/kg	0.24	0.18	0.36	0.05	0.25	0.02 [0.02]	ND	0.02	1.6	1	ND	ND	0.97	ND	ND	NA
Pesticides																	
4,4'-DDD	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0023 U	NA	NA
4,4'-DDE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0023 U	NA	NA
4,4'-DDT	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0023 U	NA	NA
Aldrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0012 U	NA	NA
alpha-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0012 U	NA	NA
alpha-Chlordane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0023 U	NA	NA
beta-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0012 UJ	NA	NA
delta-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0012 U	NA	NA
Dieldrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0023 U	NA	NA
Dimethoate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.023 U	NA	NA
Disulfoton	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.023 U	NA	NA
Endosulfan I	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0023 U	NA	NA
Endosulfan II	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0023 U	NA	NA
Endosulfan sulfate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0023 U	NA	NA
Endrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0023 U	NA	NA
Endrin aldehyde	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0023 U	NA	NA

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TABLE 2-9
PREVIOUS METAL FEEDSTOCK AREA
ORGANIC COMPOUNDS SOIL ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth(feet): / Date Collected:	Units	FS-1 0 - 1 06/12/95	FS-2 0 - 1 06/12/95	FS-3 0 - 1 06/12/95	FS-4 0 - 1 06/12/95	FS-5 0 - 1 06/12/95	FS-6 0 - 1 06/12/95	FS-7 0 - 1 06/12/95	FS-8 0 - 1 06/12/95	SB-304 0 - 1 02/08/95	SB-304 2 - 4 02/08/95	SB-304 6 - 8 02/08/95	SB-305 0 - 1 02/08/95	SB-305 2 - 4 02/08/95	SB-305 10 -12 02/08/95	SB-305 6 - 8 02/08/95	SB-352 0 - 2 06/28/95
Pesticides (Cont'd.)																	
Famphur	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.023 UJ	NA	NA
gamma-BHC (Lindane)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0012 U	NA	NA
gamma-Chlordane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0023 U	NA	NA
Heptachlor	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0012 U	NA	NA
Heptachlor epoxide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0012 U	NA	NA
Isodrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.011 U	NA	NA
Kepone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	NA	NA
Methoxychlor	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.034 UJ	NA	NA
Methyl parathion	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.023 U	NA	NA
O,O,O-Triethylphosphorothioate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.023 UJ	NA	NA
Parathion	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.023 U	NA	NA
Phorate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.023 U	NA	NA
Thionazin (Zinophos)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.023 U	NA	NA
Toxaphene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.12 U	NA	NA
Pesticides-TCLP																	
Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.5 U
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.5 U
gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U
Heptachlor epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
Herbicides																	
2,4,5-T	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.034 U	NA	NA
2,4,5-TP(Silvex)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.034 U	NA	NA
2,4-D	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.14 U	NA	NA
Dinoseb	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.014 UJ	NA	NA
Herbicides-TCLP																	
2,4,5-TP(Silvex)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	500 U
Dioxins/Furans																	
2,3,7,8-TCDD	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0000011 U	NA	NA
2,3,7,8-TCDD TEQ	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.000748	NA	NA
HxCDDs, Total	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0000015 U	NA	NA
HxCDFs, Total	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00094	NA	NA
PeCDDs, Total	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0000024 U	NA	NA
PeCDFs, Total	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0035	NA	NA
TCDDs, Total	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0000011 U	NA	NA
TCDFs, Total	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0056 J	NA	NA
TPH																	
TPH (Extractables)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE 2-10
PREVIOUS METAL FEEDSTOCK AREA
INORGANIC CONSTITUENTS SOIL ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID:		FS-1	FS-2	FS-3	FS-4	FS-5	FS-6	FS-7	FS-8	SB-304	SB-304	SB-304	SB-305	SB-305	SB-305	SB-305	SB-352
Sample Depth (feet):		0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	2 - 4	6 - 8	0 - 1	2 - 4	6 - 8	10-12	0 - 2
Date Collected:	Units	06/12/95	06/12/95	06/12/95	06/12/95	06/12/95	06/12/95	06/12/95	06/12/95	02/08/95	02/08/95	02/08/95	02/08/95	02/08/95	02/08/95	02/08/95	06/28/95
Inorganics																	
Aluminum	mg/kg	2,390	2,920	4,400	5,630	5,350	3,330 [3,670]	2,680	6,750	7,440 J	8,870	3,100	4,470	11,700	3,570	NA	4,100
Antimony	mg/kg	0.953 J	0.67 J	0.581 J	0.558 UJ*	0.538 UJ*	0.482 J [0.256 UJ]	0.268 UJ	0.523 UJ*	1.09 J	2.65 UJ	0.571 J	0.282 UJ	2.68 UJ*	1.39 UJ*	0.366 J	1.1 BN
Arsenic	mg/kg	2.78	4.24	2.44	3.3	1.49 J	1.74 J [1.88]	1.35	2.51	3.62	7.6	2.05	1.29	1.3	3.6	3.91 J	5.8
Barium	mg/kg	24.2	19.9	31	29	29.8	19.1 [19.4]	14.2	36.5	62.1	95.5	20.1	21.7	83.4	28	61.9 J	51.3
Beryllium	mg/kg	0.538 U	0.543 U	0.56 U	0.558 U	0.538 U	0.511 U [0.511 U]	0.536 U	0.523 U	0.593	0.743	0.626 U	0.565 U	0.912	0.555 U	0.687 U	0.06 U
Cadmium	mg/kg	0.356	0.111	0.197	0.136	0.136	0.073 [0.0844]	0.0268 U	0.162	0.485	3.71	0.0595	0.0333	0.074	0.0355	0.131	1.4 N*
Calcium	mg/kg	13,400 J	31,500 J	13,300 J	41,700 J	6,940 J	5,040 J [3,740 J]	1,470 J	13,100 J	21,800	11,100	2,710	2,130	55,300	15,900	NA	62,000
Chromium (Total)	mg/kg	18.9	36.2	36.2	16.8	17.8	11.8 [12]	10.5	25.9	62.7	84.4	12	14.2	125	77.8	14.8	43.8 N
Cobalt	mg/kg	5.38 U	5.43 U	5.6 U	5.58 U	5.38 U	5.11 U [5.11 U]	5.36 U	5.23 U	5.39 U	7.91	6.26 U	5.65 U	5.37 U	5.55 U	6.87 U	10.1
Copper	mg/kg	46.5	27.3	18.6	15.9	13.6	11 [10.2]	9.69	15.2	50.8	155	59.6	12.6	13.7	192	15.5	74.2 N*
Cyanide, Total	mg/kg	0.27 U	0.86	0.28 U	0.28 U	0.27 U	0.26 U [0.26 U]	0.00027 U	0.26 U	0.27 UJ	0.38	0.31 U	0.28 U	0.27 UJ	0.28 UJ	0.34 U	0.11 U
Iron	mg/kg	28,600	34,900	15,800	12,500	12,600	10,900 [10,000]	10,600	13,000	34,800	87,400	15,200	14,800	22,700	26,800	NA	40,900
Lead	mg/kg	35.5 J	9.58 J	21.5 J	7.94 J	6.63 J	2.91 J [2.78 J]	2.56 J	10.5 J	39	279	37.1	3.59	18.3	23.5	9.83 J	74.6 E
Magnesium	mg/kg	2,980	7,010	2,340	3,040	3,750	2,380 [2,230]	990	5,580	1,680	1,240	626 U	1,410	1,840	555 U	NA	1,640 *
Manganese	mg/kg	398 J	330 J	1,200 J	290 J	371 J	174 J [280 J]	162 J	681 J	6,140	9,190	1,040	232	6,820	3,830	NA	1,120 *
Mercury	mg/kg	0.0881	0.0543 U	0.056 U	0.0558 U	0.0538 U	0.0511 U [0.0511 U]	0.0536 U	0.0523 U	0.155	0.691	0.0626 UJ	0.0565 UJ	0.0537 UJ	0.0555 UJ	0.0687 UJ	0.3
Nickel	mg/kg	19.4	24.6	18.5	11.9	12.4	8.02 [8.34]	7.18	14.6	14.2	35.7	5.07	7.51	3.54	88.2	12.4	23.3 E
Potassium	mg/kg	538 U	543 U	560 U	978	848	511 U [520]	536 U	1,200	740	772	626 U	565 U	1,020	555 U	NA	603
Selenium	mg/kg	0.269 UJ	0.601 J	0.28 UJ	0.558 UJ*	0.538 UJ*	0.255 UJ [0.256 UJ]	0.268 UJ	0.523 UJ*	NA	2.65 U*	0.313 U	0.282 U	2.68 U*	1.39 U*	0.344 UJ	0.28 U
Silver	mg/kg	0.269 UJ	0.272 UJ	0.28 UJ	0.558 UJ*	0.538 UJ*	0.255 UJ [0.511 UJ*]	0.268 UJ	0.523 UJ*	NA	2.65 U*	0.313 U	0.282 U	2.68 U*	1.39 U*	0.344 U	0.66 B
Sodium	mg/kg	538 U	543 U	560 U	558 U	538 U	511 U [511 U]	536 U	523 U	539 U	5,390	626 U	565 U	537 U	555 U	NA	896
Thallium	mg/kg	0.269 UJ	0.272 UJ	0.28 UJ	0.279 UJ	0.269 UJ	0.255 UJ [0.256 UJ]	0.268 UJ	0.262 UJ	0.27 U	0.265 UJ	0.313 U	0.282 U	0.268 UJ	0.278 U	0.344 UJ	0.56 U
Tin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	137 U	NA
Vanadium	mg/kg	7.37	7.88	10.6	13.1	13.2	8.22 [8.64]	5.89	16.1	17	16	9.71	8.87	20	9	19.9	10.6
Zinc	mg/kg	73.5	32.3	53.3	29.9	26.5	18 [19.7]	12.6	38.6	89.8	436	16.8	16.5	33.1	12.3	28.6 J	88.6 EN

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TABLE 2-11
FORMER CTC PARKING LOT
ORGANIC COMPOUNDS SOIL ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth(feet): / Date Collected:	Units	PL-1 0.75 - 1.21 08/10/01	PL-2 0.75 - 1.25 08/10/01	PL-3 0.67 - 1.67 08/10/01	PL-4 0.75 - 1.5 08/10/01	VE-1 0.75 - 1.58 08/10/01	VE-2 0.92 - 1.67 08/10/01
Volatiles							
1,1,1-Trichloroethane	mg/kg	0.006 U	0.005 U [0.006 U]	0.006 U	0.006 U	0.006 U	0.006 U
1,1,2,2-Tetrachloroethane	mg/kg	0.006 U	0.005 U [0.006 U]	0.006 U	0.006 UJ	0.006 U	0.006 U
1,1,2-Trichloro-1,2,2-trifluoroethane	mg/kg	0.006 U	0.005 U [0.006 U]	0.006 U	0.006 U	0.006 U	0.006 U
1,1,2-Trichloroethane	mg/kg	0.006 U	0.005 UJ [0.006 UJ]	0.006 U	0.006 UJ	0.006 UJ	0.006 U
1,1-Dichloroethane	mg/kg	0.006 U	0.005 U [0.006 U]	0.006 U	0.006 U	0.006 U	0.006 U
1,1-Dichloroethene	mg/kg	0.006 U	0.005 U [0.006 U]	0.006 U	0.006 U	0.006 U	0.006 U
1,2-Dibromo-3-chloropropane	mg/kg	0.006 U	0.005 U [0.006 U]	0.006 U	0.006 UJ	0.006 U	0.006 U
1,2-Dibromoethane	mg/kg	0.006 U	0.005 UJ [0.006 UJ]	0.006 U	0.006 UJ	0.006 UJ	0.006 U
1,2-Dichloroethane	mg/kg	0.006 U	0.005 U [0.006 U]	0.006 U	0.006 U	0.006 U	0.006 U
1,2-Dichloropropane	mg/kg	0.006 U	0.005 U [0.006 U]	0.006 U	0.006 U	0.006 U	0.006 U
2-Butanone	mg/kg	0.006 U	0.005 U [0.006 U]	0.006 U	0.006 U	0.006 U	0.006 U
2-Hexanone	mg/kg	0.006 U	0.005 UJ [0.006 UJ]	0.006 U	0.006 UJ	0.006 UJ	0.006 U
4-Methyl-2-pentanone	mg/kg	0.006 U	0.005 U [0.006 U]	0.006 U	0.006 U	0.006 U	0.006 U
Acetone	mg/kg	0.013 U	0.011 U [0.012 U]	0.011 U	0.011 U	0.012 U	0.011 U
Benzene	mg/kg	0.006 U	0.005 U [0.006 U]	0.006 U	0.006 U	0.006 U	0.006 U
Bromodichloromethane	mg/kg	0.006 U	0.005 U [0.006 U]	0.006 U	0.006 U	0.006 U	0.006 U
Bromoform	mg/kg	0.006 U	0.005 UJ [0.006 UJ]	0.006 U	0.006 UJ	0.006 UJ	0.006 U
Bromomethane	mg/kg	0.006 U	0.005 U [0.006 U]	0.006 U	0.006 U	0.006 U	0.006 U
Carbon disulfide	mg/kg	0.006 U	0.005 U [0.006 U]	0.006 U	0.006 U	0.003 J	0.006 U
Carbon tetrachloride	mg/kg	0.006 U	0.005 U [0.006 U]	0.006 U	0.006 U	0.006 U	0.006 U
Chlorobenzene	mg/kg	0.006 U	0.005 UJ [0.006 UJ]	0.006 U	0.006 UJ	0.006 UJ	0.006 U
Chlorodibromomethane	mg/kg	0.006 U	0.005 UJ [0.006 UJ]	0.006 U	0.006 UJ	0.006 UJ	0.006 U
Chloroethane	mg/kg	0.006 U	0.005 U [0.006 U]	0.006 U	0.006 U	0.006 U	0.006 U
Chloroform	mg/kg	0.006 U	0.005 U [0.006 U]	0.006 U	0.006 U	0.006 U	0.006 U
Chloromethane	mg/kg	0.006 U	0.005 U [0.006 U]	0.006 U	0.006 U	0.006 U	0.006 U
cis-1,2-Dichloroethene	mg/kg	0.006 U	0.005 U [0.006 U]	0.006 U	0.006 U	0.006 U	0.006 U
cis-1,3-Dichloropropene	mg/kg	0.006 U	0.005 U [0.006 U]	0.006 U	0.006 U	0.006 U	0.006 U
Dichlorodifluoromethane	mg/kg	0.006 U	0.005 U [0.006 U]	0.006 U	0.006 U	0.006 U	0.006 U
Ethylbenzene	mg/kg	0.006 U	0.005 UJ [0.002 J]	0.006 U	0.006 UJ	0.016 J	0.006 U
Methyl tert-butyl ether	mg/kg	0.006 U	0.005 U [0.006 U]	0.006 U	0.006 U	0.006 U	0.006 U
Methylene chloride	mg/kg	0.006 UJ	0.005 UJ [0.006 UJ]	0.006 UJ	0.006 UJ	0.006 UJ	0.006 UJ
Styrene	mg/kg	0.006 U	0.005 UJ [0.006 UJ]	0.006 U	0.006 UJ	0.006 UJ	0.006 U
Tetrachloroethene	mg/kg	0.006 U	0.005 UJ [0.006 UJ]	0.006 U	0.006 UJ	0.006 UJ	0.006 U
Toluene	mg/kg	0.001 J	0.005 UJ [0.004 J]	0.006 U	0.0009 J	0.038 J	0.006 U
trans-1,2-Dichloroethene	mg/kg	0.0025 U	0.005 U [0.006 U]	0.006 U	0.006 U	0.006 U	0.006 U
trans-1,3-Dichloropropene	mg/kg	0.006 U	0.005 UJ [0.006 UJ]	0.006 U	0.006 UJ	0.006 UJ	0.006 U
Trichloroethene	mg/kg	0.006 U	0.005 U [0.006 U]	0.006 U	0.006 U	0.006 U	0.006 U
Trichlorofluoromethane	mg/kg	0.01 U	0.005 U [0.006 U]	0.006 U	0.006 U	0.006 U	0.006 U
Vinyl chloride	mg/kg	0.01 U	0.005 U [0.006 U]	0.006 U	0.006 U	0.006 U	0.006 U
Xylenes, Total	mg/kg	0.002 J	0.005 UJ [0.01 J]	0.006 U	0.006 UJ	0.079 J	0.006 U
Semivolatiles							
1,2,4-Trichlorobenzene	mg/kg	0.006 U	0.36 U [0.006 U]	0.006 U	0.006 UJ	0.006 U	0.006 U
1,2-Dichlorobenzene	mg/kg	0.006 U	0.005 U [0.006 U]	0.006 U	0.006 UJ	0.006 U	0.006 U
1,3-Dichlorobenzene	mg/kg	0.006 U	0.005 U [0.006 U]	0.006 U	0.006 UJ	0.006 U	0.006 U
1,4-Dichlorobenzene	mg/kg	0.006 U	0.36 U [0.006 U]	0.006 U	0.006 UJ	0.006 U	0.006 U
2,2'-oxybis(dichloropropane)	mg/kg	0.42 U	0.36 U [0.41 U]	0.37 U	0.36 U	0.4 U	0.37 U
2,4,5-Trichlorophenol	mg/kg	0.42 U	0.36 U [0.41 U]	0.37 U	0.36 U	0.4 U	0.37 U
2,4,6-Trichlorophenol	mg/kg	0.42 U	0.36 U [0.41 U]	0.37 U	0.36 U	0.4 U	0.37 U
2,4-Dichlorophenol	mg/kg	0.42 U	0.36 U [0.41 U]	0.37 U	0.36 U	0.4 U	0.37 U
2,4-Dimethylphenol	mg/kg	0.42 U	0.36 U [0.41 U]	0.37 U	0.36 U	0.4 U	0.37 U
2,4-Dinitrophenol	mg/kg	0.84 U	0.72 U [0.82 U]	0.74 U	0.71 U	0.8 U	0.74 U
2,4-Dinitrotoluene	mg/kg	0.42 U	0.36 U [0.41 U]	0.37 U	0.36 U	0.4 U	0.37 U
2,6-Dinitrotoluene	mg/kg	0.42 U	0.36 U [0.41 U]	0.37 U	0.36 U	0.4 U	0.37 U
2-Chloronaphthalene	mg/kg	0.42 U	0.36 U [0.41 U]	0.37 U	0.36 U	0.4 U	0.37 U
2-Chlorophenol	mg/kg	0.42 U	0.36 U [0.41 U]	0.37 U	0.36 U	0.4 U	0.37 U
2-Methylnaphthalene	mg/kg	0.42 U	0.056 J [0.41 U]	0.37 U	0.24 J	0.4 U	0.054 J
2-Methylphenol	mg/kg	0.42 U	0.36 U [0.41 U]	0.37 U	0.36 U	0.4 U	0.37 U
2-Nitroaniline	mg/kg	0.42 U	0.36 U [0.41 U]	0.37 U	0.36 U	0.4 U	0.37 U
2-Nitrophenol	mg/kg	R	0.36 U [0.41 U]	0.37 U	0.36 U	0.4 U	0.37 U
3,3'-Dichlorobenzidine	mg/kg	0.42 U	0.36 U [0.41 U]	0.37 U	0.36 U	0.4 U	0.37 U
3-Nitroaniline	mg/kg	0.42 U	0.36 U [0.41 U]	0.37 U	0.36 U	0.4 U	0.37 U
4,6-Dinitro-2-methylphenol	mg/kg	0.84 U	0.72 U [0.82 U]	0.74 U	0.71 U	0.8 U	0.74 U
4-Bromophenyl phenyl ether	mg/kg	0.42 U	0.36 U [0.41 U]	0.37 U	0.36 U	0.4 U	0.37 U
4-Chloro-3-methylphenol	mg/kg	0.42 U	0.36 U [0.41 U]	0.37 U	0.36 U	0.4 U	0.37 U
4-Chloroaniline	mg/kg	0.42 U	0.36 U [0.41 U]	0.37 U	0.36 U	0.4 U	0.37 U
4-Chlorophenyl phenyl ether	mg/kg	0.42 U	0.36 U [0.41 U]	0.37 U	0.36 U	0.4 U	0.37 U
4-Methylphenol	mg/kg	0.42 U	0.36 U [0.41 U]	0.37 U	0.36 U	0.4 U	0.37 U
4-Nitroaniline	mg/kg	0.42 U	0.36 U [0.41 U]	0.37 U	0.36 U	0.4 U	0.37 U

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TABLE 2-11
FORMER CTC PARKING LOT
ORGANIC COMPOUNDS SOIL ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth(feet): / Date Collected:	Units	PL-1 0.75 - 1.21 08/10/01	PL-2 0.75 - 1.25 08/10/01	PL-3 0.67 - 1.67 08/10/01	PL-4 0.75 - 1.5 08/10/01	VE-1 0.75 - 1.58 08/10/01	VE-2 0.92 - 1.67 08/10/01
Semivolatiles (Cont'd.)							
4-Nitrophenol	mg/kg	0.42 U	R [R]	R	R	R	R
Acenaphthene	mg/kg	0.42 U	0.36 U [0.41 U]	0.37 U	0.36 U	0.4 U	0.37 U
Acenaphthylene	mg/kg	0.42 U	0.36 U [0.41 U]	0.37 U	0.36 U	0.4 U	0.37 U
Acetophenone	mg/kg	0.42 U	0.36 U [0.41 U]	0.37 U	0.36 U	0.4 U	0.37 U
Anthracene	mg/kg	0.42 U	0.36 U [0.41 U]	0.37 U	0.36 U	0.4 U	0.37 U
Atrazine	mg/kg	0.42 U	0.36 U [0.41 U]	0.37 U	0.36 U	0.4 U	0.37 U
Benzo(a)anthracene	mg/kg	0.42 U	0.36 U [0.07 J]	0.37 U	0.044 J	0.4 U	0.13 J
Benzo(a)pyrene	mg/kg	0.42 U	0.36 U [0.074 J]	0.37 U	0.36 U	0.4 U	0.15 J
Benzo(b)fluoranthene	mg/kg	0.42 U	0.36 U [0.078 J]	0.37 U	0.046 J	0.4 U	0.16 J
Benzo(g,h,i)perylene	mg/kg	0.42 U	0.36 U [0.045 J]	0.37 U	0.36 U	0.4 U	0.14 J
Benzo(k)fluoranthene	mg/kg	0.42 U	0.042 J [0.044 J]	0.37 U	0.36 U	0.4 U	0.13 J
bis(2-Chloroethoxy)methane	mg/kg	0.42 U	0.36 U [0.41 U]	0.37 U	0.36 U	0.4 U	0.37 U
bis(2-Chloroethyl)ether	mg/kg	0.42 U	0.36 U [0.41 U]	0.37 U	0.36 U	0.4 U	0.37 U
bis(2-Ethylhexyl)phthalate	mg/kg	0.42 U	0.36 U [0.41 U]	0.37 U	0.36 U	0.4 U	0.37 U
Butyl benzyl phthalate	mg/kg	0.42 U	0.36 U [0.41 U]	0.37 U	0.36 U	0.4 U	0.37 U
Caprolactam	mg/kg	0.42 U	0.36 U [0.41 U]	0.37 U	0.36 U	0.4 U	0.37 U
Carbazole	mg/kg	0.42 U	0.36 U [0.41 U]	0.37 U	0.36 U	0.4 U	0.37 U
Chrysene	mg/kg	0.42 U	0.058 J [0.093 J]	0.37 U	0.11 J	0.4 U	0.17 J
Dibenz(a,h)anthracene	mg/kg	0.42 U	0.36 U [0.41 U]	0.37 U	0.36 U	0.4 U	0.37 U
Dibenzofuran	mg/kg	0.42 U	0.36 U [0.41 U]	0.37 U	0.043 J	0.4 U	0.37 U
Diethyl phthalate	mg/kg	0.42 U	0.36 U [0.41 U]	0.37 U	0.36 U	0.4 U	0.37 U
Dimethyl phthalate	mg/kg	0.42 U	0.36 U [0.41 U]	0.37 U	0.36 U	0.4 U	0.37 U
Di-n-butyl phthalate	mg/kg	0.42 U	0.36 U [0.41 U]	0.37 U	0.36 U	0.4 U	0.37 U
Di-n-octyl phthalate	mg/kg	0.42 U	0.36 U [0.41 U]	0.37 U	0.36 U	0.4 U	0.37 U
Fluoranthene	mg/kg	0.42 U	0.06 J [0.18 J]	0.37 U	0.36 U	0.4 U	0.21 J
Fluorene	mg/kg	0.42 U	0.36 U [0.41 U]	0.37 U	0.099 J	0.4 U	0.37 U
Hexachlorobenzene	mg/kg	0.42 U	0.36 U [0.41 U]	0.37 U	0.36 U	0.4 U	0.37 U
Hexachlorobutadiene	mg/kg	0.42 U	0.36 U [0.41 U]	0.37 U	0.36 U	0.4 U	0.37 U
Hexachlorocyclopentadiene	mg/kg	0.42 U	0.36 U [0.41 U]	0.37 U	0.36 U	0.4 U	0.37 U
Hexachloroethane	mg/kg	0.42 U	0.36 U [0.41 U]	0.37 U	0.36 U	0.4 U	0.37 U
Indeno(1,2,3-cd)pyrene	mg/kg	0.42 U	0.36 U [0.41 U]	0.37 U	0.36 U	0.4 U	0.11 J
Isophorone	mg/kg	0.42 U	0.36 U [0.41 U]	0.37 U	0.36 U	0.4 U	0.37 U
Isopropylbenzene	mg/kg	0.006 U	0.005 UJ [0.006 UJ]	0.006 U	0.006 UJ	0.001 J	0.006 U
Naphthalene	mg/kg	0.42 U	0.055 J [0.41 U]	0.37 U	0.15 J	0.049 J	0.037 J
Nitrobenzene	mg/kg	0.42 U	0.36 U [0.41 U]	0.37 U	0.36 U	0.4 U	0.37 U
N-Nitroso-di-n-propylamine	mg/kg	0.42 U	0.36 U [0.41 U]	0.37 U	0.36 U	0.4 U	0.37 U
N-Nitrosodiphenylamine	mg/kg	0.42 U	0.36 U [0.41 U]	0.37 U	0.36 U	0.4 U	0.37 U
Pentachlorophenol	mg/kg	0.42 U	0.36 U [0.41 U]	0.37 U	0.36 U	0.4 U	0.37 U
Phenanthrene	mg/kg	0.42 U	0.11 J [0.14 J]	0.37 U	0.28 J	0.4 U	0.11 J
Phenol	mg/kg	0.42 U	0.36 U [0.41 U]	0.37 U	0.36 U	0.4 U	0.37 U
Pyrene	mg/kg	0.42 U	0.054 J [0.13 J]	0.37 U	0.12 J	0.4 U	0.18 J
PCBs							
PCB-1016	mg/kg	0.042 U	0.036 U [0.041 U]	0.037 U	0.036 U	0.04 U	0.037 U
PCB-1221	mg/kg	0.042 U	0.036 U [0.041 U]	0.037 U	0.036 U	0.04 U	0.037 U
PCB-1232	mg/kg	0.042 U	0.036 U [0.041 U]	0.037 U	0.036 U	0.04 U	0.037 U
PCB-1242	mg/kg	0.042 U	0.036 U [0.041 U]	0.037 U	0.036 U	0.04 U	0.037 U
PCB-1248	mg/kg	0.042 U	0.036 U [0.041 U]	0.037 U	0.036 U	0.04 U	0.037 U
PCB-1254	mg/kg	0.042 U	0.036 U [0.041 U]	0.037 U	0.036 U	0.061	0.037 U
PCB-1260	mg/kg	0.017 J	0.036 U [0.041 U]	0.037 U	0.014 J	0.04 U	0.099 JN
Total Aroclors	mg/kg	NA	NA	NA	NA	NA	NA

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TABLE 2-12
FORMER CTC PARKING LOT
INORGANIC CONSTITUENTS SOIL ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	PL-1 0.75 - 1.21 08/10/01	PL-2 0.75 - 1.25 08/10/01	PL-3 0.67 - 1.67 08/10/01	PL-4 0.75 - 1.5 08/10/01	VE-1 0.75 - 1.58 08/10/01	VE-2 0.92 - 1.67 08/10/01
Inorganics							
Aluminum	mg/kg	20,900	13,600 [14,900]	4,300	6,100	1,200	5,400
Antimony	mg/kg	2.5 UJ	1.3 J [1.4 J]	1.8 J	1.2 J	0.5 UJ	1 J
Arsenic	mg/kg	9.7	2.9 [3]	3.2	4	1.6	4.7
Barium	mg/kg	180	110 [110]	140	58	9.2	67
Beryllium	mg/kg	0.2 UJ	0.2 UJ [0.2 UJ]	0.2 UJ	0.2 UJ	0.2 UJ	0.2 UJ
Cadmium	mg/kg	0.5 U	0.1 U [0.1 U]	0.1 U	0.66	0.1 U	0.51
Calcium	mg/kg	83,300	68,900 [87,900]	67,700	13,000	192,000	16,000
Chromium (Total)	mg/kg	190	110 [110]	200	40	4.9	28
Cobalt	mg/kg	61	27 [26]	19	74	120	94
Copper	mg/kg	100 J	34 J [31 J]	36 J	62 J	6.7 J	74 J
Cyanide, Total	mg/kg	0.5 U	0.5 U [1.1]	0.5 U	0.5 U	0.5 U	0.5 U
Iron	mg/kg	85,400	28,100 [35,200]	50,000	27,900	6,900	16,900
Lead	mg/kg	6.6	11 [12]	7.7	74	10	120
Magnesium	mg/kg	9,100	5,800 [7,700]	1,800	700	3,400	3,000
Manganese	mg/kg	11,600	6,600 [7,700]	10,700	1,800	150	1,300
Mercury	mg/kg	NA	0.1 U [0.1 U]	0.1 U	0.1 U	0.1 U	0.1 U
Nickel	mg/kg	80	22 [22]	24	34	3,400	51
Potassium	mg/kg	2,600	1,600 [1,800]	2,400	980	500 U	660
Selenium	mg/kg	2.5 U	2.5 U [2.5 U]	2.5 U	0.5 U	0.5 U	0.96
Silver	mg/kg	2.5 U	2.5 U [2.5 U]	2.5 U	0.5 U	0.5 U	0.5 U
Sodium	mg/kg	780	390 [360]	870	380	200	180
Thallium	mg/kg	5 U	5 U [5 U]	5 U	3.6	1.8	3.4
Vanadium	mg/kg	45	28 [31]	38	12	4.2	12
Zinc	mg/kg	16	19 [20]	25	330	18	150
Miscellaneous							
Percent Solids	%	78.6	92.1 [81.3] [91.6]	89.6	93.8	82.9	89.9

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TABLE 2-13
PARKING LOT NORTH OF BUFFER BASIN - ORGANIC COMPOUNDS
SOIL ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		BH9	BH9	BH10	BH10	SB-336	SB-342	SB-342	SB-354	SB-355
Sample Depth (ft bgs):		1 - 2	2 - 4	1 - 2	2 - 4	0 - 2	2 - 4	4 - 6	0 - 2	2 - 4
Date Collected:	Units	03/06/07	03/06/07	03/06/07	03/06/07	06/23/95	06/26/95	06/26/95	06/28/95	06/28/95
Volatile Organics										
1,1,1-Trichloroethane	mg/kg	0.046 U	0.049 U	0.041 U	0.038 U	0.0053 U	0.0053 U	0.0054 U	0.0053 U	0.0055 U
1,1,2,2-Tetrachloroethane	mg/kg	0.046 U	0.049 U	0.041 U	0.038 U	0.0053 U	0.0053 U	0.0054 U	0.0053 U	0.0055 U
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	0.23 U	0.25 U	0.21 U	0.19 U	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	mg/kg	0.046 U	0.049 U	0.041 U	0.038 U	0.0053 U	0.0053 U	0.0054 U	0.0053 U	0.0055 U
1,1-Dichloroethane	mg/kg	0.046 U	0.049 U	0.041 U	0.038 U	0.0053 U	0.0053 U	0.0054 U	0.0053 U	0.0055 U
1,1-Dichloroethene	mg/kg	0.046 U	0.049 U	0.041 U	0.038 U	0.0053 U	0.0053 U	0.0054 U	0.0053 U	0.0055 U
1,2,4-Trichlorobenzene	mg/kg	0.23 UJ	0.25 UJ	0.21 UJ	0.19 UJ	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	mg/kg	0.23 UJ	0.25 UJ	0.21 UJ	0.19 UJ	NA	NA	NA	NA	NA
1,2-Dibromoethane	mg/kg	0.23 U	0.25 U	0.21 U	0.19 U	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	0.092 U	0.098 U	0.082 U	0.076 U	0.0053 U	0.0053 U	0.0054 U	0.0053 U	0.0055 U
1,2-Dichloroethane	mg/kg	0.046 U	0.049 U	0.041 U	0.038 U	0.0053 U	0.0053 U	0.0054 U	0.0053 U	0.0055 U
1,2-Dichloroethene (total)	mg/kg	NA	NA	NA	NA	0.0053 U	0.0053 U	0.0054 U	0.0053 U	0.0055 U
1,2-Dichloropropane	mg/kg	0.046 U	0.049 U	0.041 U	0.038 U	0.0053 U	0.0053 U	0.0054 U	0.0053 U	0.0055 U
1,3-Dichlorobenzene	mg/kg	0.092 U	0.098 U	0.082 U	0.076 U	0.0053 U	0.0053 U	0.0054 U	0.0053 U	0.0055 U
1,4-Dichlorobenzene	mg/kg	0.092 U	0.098 U	0.082 U	0.076 U	0.0053 U	0.0053 U	0.0054 U	0.0053 U	0.0055 U
2-Butanone	mg/kg	0.69 U	0.74 U	0.62 U	0.57 U	0.053 U	0.0091 J	0.016 J	0.0037 J	0.0015 J
2-Hexanone	mg/kg	2.3 U	2.5 U	2.1 U	1.9 U	0.053 U	0.053 U	0.054 U	0.053 U	0.055 U
4-Methyl-2-pentanone	mg/kg	2.3 U	2.5 U	2.1 U	1.9 U	0.053 U	0.053 U	0.054 U	0.053 U	0.055 U
Acetone	mg/kg	0.93	0.92	0.67	0.63	0.0047 J	0.074	0.12	0.013 J	0.0092 J
Benzene	mg/kg	0.046 U	0.049 U	0.041 U	0.012 J	0.0053 U	0.0053 U	0.0087	0.0064	0.0028 J
Bromodichloromethane	mg/kg	0.092 U	0.098 U	0.082 U	0.076 U	0.0053 U	0.0053 U	0.0054 U	0.0053 U	0.0055 U
Bromoform	mg/kg	0.092 U	0.098 U	0.082 U	0.076 U	0.0053 U	0.0053 U	0.0054 U	0.0053 U	0.0055 U
Bromomethane	mg/kg	0.18 U	0.20 U	0.16 U	0.15 U	0.0053 U	0.0053 U	0.0054 U	0.0053 U	0.0055 U
Carbon Disulfide	mg/kg	0.23 U	0.25 U	0.21 U	0.19 U	0.0053 U	0.0016 J	0.0035 J	0.0053 U	0.0055 U
Carbon Tetrachloride	mg/kg	0.046 U	0.049 U	0.041 U	0.038 U	0.0053 U	0.0053 U	0.0054 U	0.0053 U	0.0055 U
Chlorobenzene	mg/kg	0.046 U	0.049 U	0.041 U	0.038 U	0.0053 U	0.0053 U	0.0054 U	0.0053 U	0.0055 U
Chloroethane	mg/kg	0.23 U	0.25 U	0.21 U	0.19 U	0.0053 U	0.0053 U	0.0054 U	0.0053 U	0.0055 U
Chloroform	mg/kg	0.046 U	0.049 U	0.041 U	0.038 U	0.0053 U	0.0053 U	0.0054 U	0.0053 U	0.0055 U
Chloromethane	mg/kg	0.23 U	0.25 U	0.21 U	0.19 U	0.0053 U	0.0053 U	0.0054 U	0.0053 U	0.0055 U
cis-1,2-Dichloroethene	mg/kg	0.046 U	0.049 U	0.041 U	0.038 U	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	mg/kg	0.046 U	0.049 U	0.041 U	0.038 U	0.0053 U	0.0053 U	0.0054 U	0.0053 U	0.0055 U
Cyclohexane	mg/kg	1.1 UJ	1.2 UJ	0.99 UJ	0.92 UJ	NA	NA	NA	NA	NA
Dibromochloromethane	mg/kg	0.046 U	0.049 U	0.041 U	0.038 U	0.0053 U	0.0053 U	0.0054 U	0.0053 U	0.0055 U
Dichlorodifluoromethane	mg/kg	0.092 U	0.098 U	0.082 U	0.076 U	NA	NA	NA	NA	NA
Ethylbenzene	mg/kg	0.046 U	0.049 U	0.041 U	0.010 J	0.0053 U	0.0053 U	0.0092	0.0037 J	0.0013 J
Isopropylbenzene	mg/kg	0.23 U	0.25 U	0.21 U	0.19 U	NA	NA	NA	NA	NA
Methyl acetate	mg/kg	1.1 U	1.2 U	0.99 U	0.92 U	NA	NA	NA	NA	NA
Methyl cyclohexane	mg/kg	0.077 J	1.2 UJ	0.060 J	0.92 UJ	NA	NA	NA	NA	NA
Methyl tert-butyl ether	mg/kg	0.23 U	0.25 U	0.21 U	0.19 U	NA	NA	NA	NA	NA
Methylene Chloride	mg/kg	0.23 U	0.25 U	0.21 U	0.19 U	0.0030 J	0.0013 J	0.0044 J	0.0017 J	0.0017 J
Styrene	mg/kg	0.046 U	0.049 U	0.041 U	0.038 U	0.0053 U	0.0053 U	0.0054 U	0.0053 U	0.0055 U
Tetrachloroethene	mg/kg	0.046 U	0.049 U	0.012 J	0.038 U	0.0053 U	0.0053 U	0.0054 U	0.0053 U	0.0055 U
Toluene	mg/kg	0.011 J	0.098 U	0.0096 J	0.019 J	0.073	0.019	0.19	0.29	0.11
trans-1,2-Dichloroethene	mg/kg	0.046 U	0.049 U	0.041 U	0.038 U	0.0053 U	0.0053 U	0.0054 U	0.0053 U	0.0055 U

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TABLE 2-13
PARKING LOT NORTH OF BUFFER BASIN - ORGANIC COMPOUNDS
SOIL ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID: / Sample Depth (ft bgs): / Date Collected:	Units	BH9 1 - 2 03/06/07	BH9 2 - 4 03/06/07	BH10 1 - 2 03/06/07	BH10 2 - 4 03/06/07	SB-336 0 - 2 06/23/95	SB-342 2 - 4 06/26/95	SB-342 4 - 6 06/26/95	SB-354 0 - 2 06/28/95	SB-355 2 - 4 06/28/95
Volatile Organics (Cont'd.)										
trans-1,3-Dichloropropene	mg/kg	0.046 U	0.049 U	0.041 U	0.038 U	0.0053 U	0.0053 U	0.0054 U	0.0053 U	0.0055 U
Trichloroethene	mg/kg	0.046 U	0.049 U	0.041 U	0.038 U	0.0053 U	0.0053 U	0.0054 U	0.0053 U	0.0055 U
Trichlorofluoromethane	mg/kg	0.092 U	0.098 U	0.082 U	0.076 U	NA	NA	NA	NA	NA
Vinyl Chloride	mg/kg	0.037 U	0.039 U	0.033 U	0.031 U	0.0053 U	0.0053 U	0.0054 U	0.0053 U	0.0055 U
Total 1,3-Dichloropropenes	mg/kg	0.046 U	0.049 U	0.041 U	0.038 U	0.0053 U	0.0053 U	0.0054 U	0.0053 U	0.0055 U
Total Xylenes	mg/kg	0.056 J	0.033 J	0.047 J	0.056 J	0.0034 J	0.0028 J	0.051	0.013	0.0045 J
Semivolatile Organics										
1,2,4-Trichlorobenzene	mg/kg	NA	NA	NA	NA	0.35 U	0.18 U	0.18 U	0.18 U	0.27 U
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	mg/kg	5.6 U	0.31 U	0.30 U	0.28 U	0.35 U	0.18 U	0.18 U	0.18 U	0.27 U
2,4,5-Trichlorophenol	mg/kg	5.6 U	0.31 U	0.30 U	0.28 U	0.35 U	0.18 U	0.18 U	0.18 U	0.27 U
2,4,6-Trichlorophenol	mg/kg	5.6 U	0.31 U	0.30 U	0.28 U	0.35 U	0.18 U	0.18 U	0.18 U	0.27 U
2,4-Dichlorophenol	mg/kg	5.6 U	0.31 U	0.30 U	0.28 U	0.35 U	0.18 U	0.18 U	0.18 U	0.27 U
2,4-Dimethylphenol	mg/kg	5.6 U	0.31 U	0.30 U	0.28 U	0.35 U	0.18 U	0.18 U	0.18 U	0.27 U
2,4-Dinitrophenol	mg/kg	3.2 U	0.17 U	0.17 U	0.16 U	1.7 U	0.85 U	0.87 U	0.86 U	1.3 U
2,4-Dinitrotoluene	mg/kg	5.6 U	0.31 U	0.30 U	0.28 U	0.35 U	0.18 U	0.18 U	0.18 U	0.27 U
2,6-Dinitrotoluene	mg/kg	5.6 U	0.31 U	0.30 U	0.28 U	0.35 U	0.18 U	0.18 U	0.18 U	0.27 U
2-Chloronaphthalene	mg/kg	5.6 U	0.31 U	0.30 U	0.28 U	0.35 U	0.18 U	0.18 U	0.18 U	0.27 U
2-Chlorophenol	mg/kg	5.6 U	0.31 U	0.30 U	0.28 U	0.35 U	0.18 U	0.18 U	0.18 U	0.27 U
2-Methylnaphthalene	mg/kg	0.40 J	0.23 J	0.046 J	0.23 J	0.15 J	0.24	0.59	0.039 J	0.072 J
2-Methylphenol	mg/kg	5.6 U	0.31 U	0.30 U	0.28 U	0.35 U	0.18 U	0.18 U	0.18 U	0.27 U
2-Nitroaniline	mg/kg	4.3 U	0.23 U	0.22 U	0.21 U	1.7 U	0.85 U	0.87 U	0.86 U	1.3 U
2-Nitrophenol	mg/kg	5.6 U	0.31 U	0.30 U	0.28 U	0.35 U	0.18 U	0.18 U	0.18 U	0.27 U
3,3'-Dichlorobenzidine	mg/kg	34 U	1.9 U	1.8 U	1.7 U	0.70 U	0.35 U	0.36 U	0.35 U	0.55 U
3-Nitroaniline	mg/kg	4.3 U	0.23 U	0.22 U	0.21 U	1.7 U	0.85 U	0.87 U	0.86 U	1.3 U
4,6-Dinitro-2-methylphenol	mg/kg	3.2 U	0.17 U	0.17 U	0.16 U	1.7 U	0.85 U	0.87 U	0.86 U	1.3 U
4-Bromophenyl-phenylether	mg/kg	5.6 U	0.31 U	0.30 U	0.28 U	0.35 U	0.18 U	0.18 U	0.18 U	0.27 U
4-Chloro-3-Methylphenol	mg/kg	5.6 U	0.31 U	0.30 U	0.28 U	0.35 U	0.18 U	0.18 U	0.18 U	0.27 U
4-Chloroaniline	mg/kg	3.2 U	0.17 U	0.17 U	0.16 U	0.35 U	0.18 U	0.18 U	0.18 U	0.27 U
4-Chlorophenyl-phenylether	mg/kg	5.6 U	0.31 U	0.30 U	0.28 U	0.35 U	0.18 U	0.18 U	0.18 U	0.27 U
4-Methylphenol	mg/kg	5.6 U	0.31 U	0.30 U	0.28 U	0.35 U	0.18 U	0.052 J	0.18 U	0.27 U
4-Nitroaniline	mg/kg	4.3 U	0.23 U	0.22 U	0.21 U	1.7 U	0.85 U	0.87 U	0.86 U	1.3 U
4-Nitrophenol	mg/kg	7.0 U	0.38 U	0.37 U	0.35 U	1.7 U	0.85 U	0.87 U	0.86 U	1.3 U
Acenaphthene	mg/kg	3.3 J	0.021 J	0.30 U	0.012 J	0.35 U	0.18 U	0.18 U	0.18 U	0.27 U
Acenaphthylene	mg/kg	5.6 U	0.0089 J	0.30 U	0.28 U	0.35 U	0.18 U	0.18 U	0.18 U	0.27 U
Acetophenone	mg/kg	5.6 U	0.31 U	0.30 U	0.28 U	NA	NA	NA	NA	NA
Anthracene	mg/kg	8.5	0.046 J	0.0079 J	0.020 J	0.35 U	0.18 U	0.18 U	0.18 U	0.27 U
Atrazine	mg/kg	0.85 U	0.046 U	0.045 U	0.042 U	NA	NA	NA	NA	NA
Benzaldehyde	mg/kg	5.6 U	0.31 U	0.30 U	0.28 U	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/kg	8.1	0.060 J	0.017 J	0.021 J	0.35 U	0.18 U	0.049 J	0.18 U	0.27 U
Benzo(a)pyrene	mg/kg	6.6	0.10 J	0.30 U	0.28 U	0.35 U	0.18 U	0.18 U	0.18 U	0.27 U
Benzo(b)fluoranthene	mg/kg	6.7	0.057 J	0.022 J	0.012 J	0.35 U	0.18 U	0.18 U	0.18 U	0.27 U
Benzo(g,h,i)perylene	mg/kg	2.6 J	0.31 U	0.30 U	0.28 U	0.35 U	0.18 U	0.18 U	0.18 U	0.27 U
Benzo(k)fluoranthene	mg/kg	2.8 J	0.028 J	0.011 J	0.28 U	0.35 U	0.18 U	0.18 U	0.18 U	0.27 U

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SOIL ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID: / Sample Depth (ft bgs): / Date Collected:	Units	BH9 1 - 2 03/06/07	BH9 2 - 4 03/06/07	BH10 1 - 2 03/06/07	BH10 2 - 4 03/06/07	SB-336 0 - 2 06/23/95	SB-342 2 - 4 06/26/95	SB-342 4 - 6 06/26/95	SB-354 0 - 2 06/28/95	SB-355 2 - 4 06/28/95
Semivolatile Organics (Cont'd.)										
Biphenyl	mg/kg	5.6 U	0.062 J	0.30 U	0.28 U	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	mg/kg	5.6 U	0.31 U	0.30 U	0.28 U	0.35 U	0.18 U	0.18 U	0.18 U	0.27 U
bis(2-Chloroethyl)ether	mg/kg	1.7 U	0.011 J	0.089 U	0.084 U	0.35 U	0.18 U	0.18 U	0.18 U	0.27 U
bis(2-Ethylhexyl)phthalate	mg/kg	5.6 U	0.31 U	0.30 U	0.28 U	0.35 U	0.18 U	0.18 U	0.089 J	0.21 J
Butylbenzylphthalate	mg/kg	5.6 U	0.31 U	0.30 U	0.28 U	0.35 U	0.18 U	0.18 U	0.18 U	0.27 U
Caprolactam	mg/kg	5.6 U	0.31 U	0.30 U	0.28 U	NA	NA	NA	NA	NA
Carbazole	mg/kg	3.6 J	0.31 U	0.30 U	0.28 U	0.35 U	0.18 U	0.18 U	0.18 U	0.27 U
Chrysene	mg/kg	7.6	0.14 J	0.038 J	0.031 J	0.35 U	0.039 J	0.040 J	0.046 J	0.088 J
Dibenzo(a,h)anthracene	mg/kg	0.055 J	0.31 U	0.30 U	0.28 U	0.35 U	0.18 U	0.18 U	0.18 U	0.27 U
Dibenzofuran	mg/kg	2.4 J	0.069 J	0.30 U	0.022 J	0.35 U	0.18 U	0.056 J	0.18 U	0.27 U
Diethylphthalate	mg/kg	5.6 U	0.31 U	0.30 U	0.28 U	0.35 U	0.18 U	0.18 U	0.18 U	0.27 U
Dimethylphthalate	mg/kg	5.6 U	0.31 U	0.30 U	0.28 U	0.35 U	0.18 U	0.18 U	0.18 U	0.27 U
Di-n-Butylphthalate	mg/kg	5.6 U	0.31 U	0.30 U	0.28 U	0.35 U	0.21	0.10 J	2.7	4.2
Di-n-Octylphthalate	mg/kg	5.6 U	0.31 U	0.30 U	0.28 U	0.35 U	0.18 U	0.18 U	0.18 U	0.27 U
Fluoranthene	mg/kg	21	0.14 J	0.038 J	0.082 J	0.35 U	0.053 J	0.10 J	0.18 U	0.058 J
Fluorene	mg/kg	4.0 J	0.037 J	0.30 U	0.024 J	0.35 U	0.041 J	0.11 J	0.18 U	0.27 U
Hexachlorobenzene	mg/kg	5.6 U	0.31 U	0.30 U	0.28 U	0.35 U	0.18 U	0.18 U	0.18 U	0.27 U
Hexachlorobutadiene	mg/kg	0.85 U	0.046 U	0.045 U	0.042 U	0.35 U	0.18 U	0.18 U	0.18 U	0.27 U
Hexachlorocyclopentadiene	mg/kg	5.6 U	0.31 U	0.30 U	0.28 U	0.35 U	0.18 U	0.18 U	0.18 U	0.27 U
Hexachloroethane	mg/kg	5.6 U	0.31 U	0.30 U	0.28 U	0.35 U	0.18 U	0.18 U	0.18 U	0.27 U
Indeno(1,2,3-cd)pyrene	mg/kg	2.9 J	0.31 U	0.30 U	0.28 U	0.35 U	0.18 U	0.18 U	0.18 U	0.27 U
Isophorone	mg/kg	5.6 U	0.31 U	0.30 U	0.28 U	0.35 U	0.18 U	0.18 U	0.18 U	0.27 U
Naphthalene	mg/kg	5.6 U	0.17 J	0.035 J	0.17 J	0.080 J	0.17 J	0.57	0.039 J	0.27 U
Nitrobenzene	mg/kg	5.6 U	0.31 U	0.30 U	0.28 U	0.35 U	0.18 U	0.18 U	0.18 U	0.27 U
N-Nitroso-di-n-propylamine	mg/kg	5.6 U	0.31 U	0.30 U	0.28 U	0.35 U	0.18 U	0.18 U	0.18 U	0.27 U
N-Nitrosodiphenylamine	mg/kg	5.6 U	0.31 U	0.30 U	0.28 U	0.35 U	0.18 U	0.18 U	0.18 U	0.27 U
Pentachlorophenol	mg/kg	3.2 U	0.17 U	0.17 U	0.16 U	1.7 U	0.85 U	0.87 U	0.86 U	1.3 U
Phenanthrene	mg/kg	23	0.32	0.072 J	0.13 J	0.10 J	0.18	0.46	0.050 J	0.091 J
Phenol	mg/kg	5.6 U	0.31 U	0.30 U	0.28 U	0.35 U	0.18 U	0.18 U	0.18 U	0.27 U
Pyrene	mg/kg	17	0.15 J	0.033 J	0.056 J	0.35 U	0.059 J	0.12 J	0.18 U	0.061 J
Total Methylphenols	mg/kg	5.6 U	0.31 U	0.30 U	0.28 U	0.35 U	0.18 U	0.18 U	0.18 U	0.27 U
PCBs										
Aroclor-1016	mg/kg	0.28 U	0.31 U	0.30 U	0.28 U	0.17 U	0.035 U	0.036 U	0.035 U	0.036 U
Aroclor-1221	mg/kg	0.28 U	0.31 U	0.30 U	0.28 U	0.17 U	0.035 U	0.036 U	0.035 U	0.036 U
Aroclor-1232	mg/kg	0.28 U	0.31 U	0.30 U	0.28 U	0.17 U	0.035 U	0.036 U	0.035 U	0.036 U
Aroclor-1242	mg/kg	0.28 U	0.31 U	0.30 U	0.28 U	0.17 U	0.035 U	0.036 U	0.035 U	0.036 U
Aroclor-1248	mg/kg	0.28 U	0.31 U	0.30 U	0.28 U	0.17 U	0.035 U	0.036 U	0.035 U	0.036 U
Aroclor-1254	mg/kg	0.025 J	0.31 U	0.023 J	0.029 J	0.17 U	0.077	0.051	0.035 U	0.036 U
Aroclor-1260	mg/kg	0.28 U	0.31 U	0.30 U	0.28 U	0.17 U	0.035 U	0.036 U	0.035 U	0.036 U
Total PCBs	mg/kg	0.025 J	0.31 U	0.023 J	0.029 J	NA	NA	NA	NA	NA

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TABLE 2-14
PARKING LOT NORTH OF BUFFER BASIN - INORGANIC COMPOUNDS
SOIL ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		BH9	BH9	BH10	BH10	SB-336	SB-342	SB-342	SB-354	SB-355
Sample Depth (ft bgs):		1 - 2	2 - 4	1 - 2	2 - 4	0 - 2	2 - 4	4 - 6	0 - 2	2 - 4
Date Collected:	Units	03/06/07	03/06/07	03/06/07	03/06/07	06/23/95	06/26/95	06/26/95	06/28/95	06/28/95
Inorganics										
Aluminum	mg/kg	NA	NA	NA	NA	3,690	20,600	9,780	2,780	9,100
Antimony	mg/kg	0.170 UJ	0.190 UJ	0.180 UJ	0.170 UJ	0.802	0.540 BN	0.530 BN	0.550 BN	0.680 BN
Arsenic	mg/kg	2.90	2.30	3.20	1.20	2.37	1.30	1.50	3.50	2.90
Barium	mg/kg	40.3	28.7	125	184	33.5	280	95.0	23.5	83.1
Beryllium	mg/kg	0.170 U	0.0910 J	0.180 U	0.170 U	0.530 U	0.740	0.280	0.0500 U	0.160 B
Cadmium	mg/kg	0.220	0.180	0.450	0.580	0.0990	0.790 N*	0.390 N*	0.500 N*	0.480 N*
Calcium	mg/kg	NA	NA	NA	NA	62,400	82,100	28,100	74,200	22,000
Chromium Total	mg/kg	18.9	7.10	108	142	21.2	201 N	79.0 N	12.6 N	66.3 N
Cobalt	mg/kg	2.70	2.60	3.60	3.70	5.30 U	5.40	2.30 B	3.70 B	9.20
Copper	mg/kg	41.0	11.6	26.7	37.6	21.7	8.60 N*	22.0 N*	33.4 N*	89.4 N*
Cyanide (total)	mg/kg	NA	NA	NA	NA	0.230	0.190	0.130	0.110 U	0.110 U
Iron	mg/kg	NA	NA	NA	NA	21,300	29,200	16,500	18,600	37,700
Lead	mg/kg	31.0	10.4	7.40	7.10	4.62	6.70 E	9.40 E	7.40 E	24.1 E
Magnesium	mg/kg	NA	NA	NA	NA	11,200	1,940 *	1,010 *	5,880 *	2,340 *
Manganese	mg/kg	965	255	9,200	11,900	1,180	15,900 *	5,410 *	474 *	3,290 *
Mercury	mg/kg	0.0430 U	0.0190 J	0.0450 U	0.0420 U	0.0530 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
Nickel	mg/kg	12.8	6.50	10.5	8.80	15.5	4.70 E	4.90 E	10.4 E	16.2 E
Potassium	mg/kg	NA	NA	NA	NA	535	2,660	1,170	412 B	997
Selenium	mg/kg	0.200	0.210	0.180 U	0.170 U	0.530 U*	6.50	2.20	0.270 U	1.40
Silver	mg/kg	0.0550 J	0.0930 U	0.110	0.280	0.530 U*	3.70	1.00 B	0.220 B	0.540 B
Sodium	mg/kg	NA	NA	NA	NA	530 U	622	512 B	991	537 B
Thallium	mg/kg	0.0330 J	0.0590 J	0.0460 J	0.0310 J	0.265 U	0.540 U	0.530 U	0.550 U	0.550 U
Vanadium	mg/kg	9.30	10.0	30.4	41.0	10.6	36.2	17.6	7.30	20.8
Zinc	mg/kg	38.2	13.8	18.3	17.9	13.5	14.8 EN	15.2 EN	14.2 EN	37.0 EN

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TABLE 2-15
FORMER RAILYARD
ORGANIC COMPOUNDS SOIL ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		BH11	BH11	BH12	BH12	NS-RS-4	RS-1	RS-2	RS-2-1	RS-2-2	RS-2-3	RS-2-4	RS-2-5	RS-2-6	RS-2-7	RS-2-8
Sample Depth (ft bgs):		0 - 2	2 - 4	0 - 2	2 - 4	2.5 - 3	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1
Date Collected:	Units	03/06/07	03/06/07	03/06/07	03/06/07	06/13/95	06/13/95	06/13/95	06/10/96	06/10/96	06/10/96	06/10/96	06/10/96	06/10/96	06/10/96	06/10/96
Volatile Organics																
1,1,1,2-Tetrachloroethane	mg/kg	NA	NA	NA	NA	0.0063 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	mg/kg	0.052 U	0.048 U	0.045 U [0.046 U]	0.044 U	0.0063 U	0.0053 U	0.0054 U	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	mg/kg	0.052 U	0.048 U	0.045 U [0.046 U]	0.044 U	0.0063 U	0.0053 UJ	0.0054 U	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	0.26 U	0.24 U	0.23 U [0.23 U]	0.22 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	mg/kg	0.052 U	0.048 U	0.045 U [0.046 U]	0.044 U	0.0063 U	0.0053 U	0.0054 U	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	mg/kg	0.052 U	0.048 U	0.045 U [0.046 U]	0.044 U	0.0063 U	0.0053 U	0.0054 U	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	mg/kg	0.052 U	0.048 U	0.045 U [0.046 U]	0.044 U	0.0063 U	0.0053 U	0.0054 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	mg/kg	NA	NA	NA	NA	0.0063 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	0.26 UJ	0.24 UJ	0.061 J [0.063 J]	0.22 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	mg/kg	0.26 UJ	0.24 UJ	0.23 UJ [0.23 UJ]	0.22 UJ	0.013 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	mg/kg	0.26 U	0.24 U	0.23 U [0.23 U]	0.22 U	0.0063 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	0.10 U	0.095 U	0.090 U [0.091 U]	0.089 U	0.0063 U	0.0053 UJ	0.0054 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	mg/kg	0.052 U	0.048 U	0.045 U [0.046 U]	0.044 U	0.0063 U	0.0053 U	0.0054 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	mg/kg	NA	NA	NA	NA	NA	0.0053 U	0.0054 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	mg/kg	0.052 U	0.048 U	0.045 U [0.046 U]	0.044 U	0.0063 U	0.0053 U	0.0054 U	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	0.10 U	0.095 U	0.090 U [0.091 U]	0.089 U	0.0063 U	0.0053 UJ	0.0054 U	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	0.10 U	0.095 U	0.010 J [0.091 U]	0.089 U	0.0063 U	0.0053 UJ	0.0054 U	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dioxane	mg/kg	NA	NA	NA	NA	R	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	mg/kg	0.78 U	0.72 U	0.68 U [0.68 U]	0.67 U	0.0070 J	0.053 U	0.054 U	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloro-1,3-butadiene	mg/kg	NA	NA	NA	NA	0.0063 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	mg/kg	2.6 U	2.4 U	2.3 U [2.3 U]	2.2 U	0.063 U	0.053 UJ	0.054 U	NA	NA	NA	NA	NA	NA	NA	NA
3-Chloropropene	mg/kg	NA	NA	NA	NA	0.0063 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	mg/kg	2.6 U	2.4 U	2.3 U [2.3 U]	2.2 U	0.063 U	0.053 U	0.054 U	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	mg/kg	1.3	0.59 J	0.71 J [0.58 J]	0.51 J	0.067 UJ	0.053 UJ	0.054 UJ	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	mg/kg	NA	NA	NA	NA	0.063 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	mg/kg	NA	NA	NA	NA	0.063 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	mg/kg	NA	NA	NA	NA	0.063 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	mg/kg	0.088	0.016 J	0.045 U [0.046 U]	0.0076 J	0.0063 U	0.0053 U	0.0054 U	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	mg/kg	0.10 U	0.095 U	0.090 U [0.091 U]	0.089 U	0.0063 U	0.0053 U	0.0054 U	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	mg/kg	0.10 U	0.095 U	0.090 U [0.091 U]	0.089 U	0.0063 U	0.0053 U	0.0054 U	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	mg/kg	0.21 U	0.19 U	0.18 U [0.18 U]	0.18 U	0.0063 UJ	0.0053 U	0.0054 U	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	mg/kg	0.26 U	0.24 U	0.23 U [0.23 U]	0.22 U	0.0063 U	0.0053 U	0.0054 U	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	mg/kg	0.052 U	0.048 U	0.045 U [0.046 U]	0.044 U	0.0063 U	0.0053 U	0.0054 U	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	mg/kg	0.052 U	0.048 U	0.045 U [0.046 U]	0.044 U	0.0063 U	0.0053 UJ	0.0054 U	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	mg/kg	0.26 U	0.24 U	0.23 U [0.23 U]	0.22 U	0.0063 UJ	0.0053 UJ	0.0054 UJ	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	mg/kg	0.052 U	0.048 U	0.045 U [0.046 U]	0.044 U	0.0063 U	0.0053 U	0.0054 U	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	mg/kg	0.26 U	0.24 U	0.23 U [0.23 U]	0.22 U	0.0063 U	0.0053 UJ	0.0054 UJ	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	mg/kg	0.052 U	0.048 U	0.045 U [0.046 U]	0.044 U	0.0063 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	mg/kg	0.052 U	0.048 U	0.045 U [0.046 U]	0.044 U	0.0063 U	0.0053 U	0.0054 U	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	mg/kg	0.41 J	0.23 J	1.1 UJ [1.1 UJ]	1.1 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE 2-15
FORMER RAILYARD
ORGANIC COMPOUNDS SOIL ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID: / Sample Depth (ft bgs): / Date Collected:	Units	BH11 0 - 2 03/06/07	BH11 2 - 4 03/06/07	BH12 0 - 2 03/06/07	BH12 2 - 4 03/06/07	NS-RS-4 2.5 - 3 06/13/95	RS-1 0 - 1 06/13/95	RS-2 0 - 1 06/13/95	RS-2-1 0 - 1 06/10/96	RS-2-2 0 - 1 06/10/96	RS-2-3 0 - 1 06/10/96	RS-2-4 0 - 1 06/10/96	RS-2-5 0 - 1 06/10/96	RS-2-6 0 - 1 06/10/96	RS-2-7 0 - 1 06/10/96	RS-2-8 0 - 1 06/10/96
Volatile Organics (Cont'd.)																
Dibromochloromethane	mg/kg	0.052 U	0.048 U	0.045 U [0.046 U]	0.044 U	0.0063 U	0.0053 U	0.0054 U	NA	NA	NA	NA	NA	NA	NA	NA
Dibromomethane	mg/kg	NA	NA	NA	NA	0.0063 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	mg/kg	0.10 U	0.095 U	0.090 U [0.091 U]	0.089 U	0.0063 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	mg/kg	NA	NA	NA	NA	0.0063 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	mg/kg	0.17	0.33	0.045 U [0.046 U]	0.0077 J	0.0063 U	0.0053 UJ	0.0054 U	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	mg/kg	NA	NA	NA	NA	0.013 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isobutanol	mg/kg	NA	NA	NA	NA	R	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	mg/kg	0.10 J	0.097 J	0.23 U [0.23 U]	0.051 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	mg/kg	NA	NA	NA	NA	0.025 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	mg/kg	1.2 U	1.1 U	1.1 U [1.1 U]	1.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	mg/kg	0.98 J	0.78 J	1.1 UJ [1.1 UJ]	1.1 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	mg/kg	NA	NA	NA	NA	0.0063 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	mg/kg	0.26 U	0.24 U	0.23 U [0.23 U]	0.22 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	mg/kg	0.26 U	0.24 U	0.23 U [0.23 U]	0.22 U	0.0063 U	0.019 UJ	0.0068 U	NA	NA	NA	NA	NA	NA	NA	NA
Propionitrile	mg/kg	NA	NA	NA	NA	0.025 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	mg/kg	0.052 U	0.048 U	0.045 U [0.046 U]	0.044 U	0.0063 U	0.0053 UJ	0.0054 U	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	mg/kg	0.052 U	0.048 U	0.045 U [0.046 U]	0.011 J	0.0063 U	0.0053 UJ	0.0054 U	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	mg/kg	0.62	0.095 U	0.090 U [0.091 U]	0.089 U	0.0059 U	0.0053 UJ	0.0054 U	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	mg/kg	0.052 U	0.048 U	0.045 U [0.046 U]	0.044 U	0.0063 U	0.0053 U	0.0054 U	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	mg/kg	0.052 U	0.048 U	0.045 U [0.046 U]	0.044 U	0.0063 U	0.0053 U	0.0054 U	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,4-Dichloro-2-butene	mg/kg	NA	NA	NA	NA	0.0063 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	mg/kg	0.052 U	0.048 U	0.045 U [0.046 U]	0.044 U	0.0063 U	0.0053 U	0.0054 U	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	mg/kg	0.10 U	0.095 U	0.090 U [0.091 U]	0.089 U	0.0063 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Acetate	mg/kg	NA	NA	NA	NA	0.063 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	mg/kg	0.042 U	0.038 U	0.036 U [0.036 U]	0.036 U	0.0063 U	0.0053 U	0.0054 U	NA	NA	NA	NA	NA	NA	NA	NA
Total 1,3-Dichloropropenes	mg/kg	0.052 U	0.048 U	0.045 U [0.046 U]	0.044 U	0.0063 U	0.0053 U	0.0054 U	NA	NA	NA	NA	NA	NA	NA	NA
Total Xylenes	mg/kg	1.2	0.36	0.050 J [0.14 U]	0.055 J	0.0063 U	0.0053 UJ	0.0054 U	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organics																
1,2,3,4-Tetrachlorobenzene	mg/kg	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,5-Tetrachlorobenzene	mg/kg	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	mg/kg	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4,5-Tetrachlorobenzene	mg/kg	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	NA	NA	NA	NA	0.21 U	0.17 U	0.90 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dinitrobenzene	mg/kg	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	mg/kg	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	mg/kg	NA	NA	NA	NA	R	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	mg/kg	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	mg/kg	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	mg/kg	NA	NA	NA	NA	4.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	mg/kg	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE 2-15
FORMER RAILYARD
ORGANIC COMPOUNDS SOIL ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID: / Sample Depth (ft bgs): / Date Collected:	Units	BH11 0 - 2 03/06/07	BH11 2 - 4 03/06/07	BH12 0 - 2 03/06/07	BH12 2 - 4 03/06/07	NS-RS-4 2.5 - 3 06/13/95	RS-1 0 - 1 06/13/95	RS-2 0 - 1 06/13/95	RS-2-1 0 - 1 06/10/96	RS-2-2 0 - 1 06/10/96	RS-2-3 0 - 1 06/10/96	RS-2-4 0 - 1 06/10/96	RS-2-5 0 - 1 06/10/96	RS-2-6 0 - 1 06/10/96	RS-2-7 0 - 1 06/10/96	RS-2-8 0 - 1 06/10/96
Semivolatile Organics (Cont'd.)																
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	mg/kg	1.2 U	0.31 U	0.30 U [0.30 U]	0.29 U	0.21 U	0.17 U	0.90 U	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6-Tetrachlorophenol	mg/kg	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,5,6-Tetrachlorophenol	mg/kg	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	mg/kg	1.2 U	0.31 U	0.30 U [0.30 U]	0.29 U	0.21 U	0.17 U	0.90 U	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	mg/kg	1.2 U	0.31 U	0.30 U [0.30 U]	0.29 U	0.21 U	0.17 U	0.90 U	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Diaminotoluene	mg/kg	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	mg/kg	1.2 U	0.31 U	0.30 U [0.30 U]	0.29 U	0.21 U	0.17 U	0.90 U	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	mg/kg	1.2 U	0.31 U	0.30 U [0.30 U]	0.29 U	0.21 U	0.17 U	0.90 U	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	mg/kg	0.68 U	0.18 U	0.17 U [0.17 U]	0.17 U	1.0 U	0.84 U	4.3 U	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	mg/kg	1.2 U	0.31 U	0.30 U [0.30 U]	0.29 U	0.21 U	0.17 U	0.90 U	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dichlorophenol	mg/kg	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	mg/kg	1.2 U	0.31 U	0.30 U [0.30 U]	0.29 U	0.21 U	0.17 U	0.90 U	NA	NA	NA	NA	NA	NA	NA	NA
2-Acetylaminofluorene	mg/kg	NA	NA	NA	NA	0.42 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	mg/kg	1.2 U	0.31 U	0.30 U [0.30 U]	0.29 U	0.21 U	0.17 U	0.90 U	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	mg/kg	1.2 U	0.31 U	0.30 U [0.30 U]	0.29 U	0.21 U	0.17 U	0.90 U	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	mg/kg	0.35 J	0.0098 J	0.023 J [0.038 J]	0.058 J	0.21 U	0.73	0.30 J	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	mg/kg	1.2 U	0.31 U	0.30 U [0.30 U]	0.29 U	0.21 U	0.17 U	0.90 U	NA	NA	NA	NA	NA	NA	NA	NA
2-Naphthylamine	mg/kg	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	mg/kg	0.91 U	0.24 U	0.23 U [0.23 U]	0.22 U	1.0 U	0.84 U	4.3 U	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	mg/kg	1.2 U	0.31 U	0.30 U [0.30 U]	0.29 U	0.21 U	0.17 U	0.90 U	NA	NA	NA	NA	NA	NA	NA	NA
2-Picoline	mg/kg	NA	NA	NA	NA	0.42 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	mg/kg	7.2 U	1.9 U	1.8 U [1.8 U]	1.8 U	0.42 U	0.35 U	1.8 U	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dimethylbenzidine	mg/kg	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	mg/kg	NA	NA	NA	NA	2.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	mg/kg	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	mg/kg	0.91 U	0.24 U	0.23 U [0.23 U]	0.22 U	1.0 U	0.84 U	4.3 U	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-Methylene-bis(2-chloroaniline)	mg/kg	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	mg/kg	0.68 U	0.18 U	0.17 U [0.17 U]	0.17 U	1.0 U	0.84 U	4.3 U	NA	NA	NA	NA	NA	NA	NA	NA
4-Aminobiphenyl	mg/kg	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	mg/kg	1.2 U	0.31 U	0.30 U [0.30 U]	0.29 U	0.21 U	0.17 U	0.90 U	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	mg/kg	1.2 U	0.31 U	0.30 U [0.30 U]	0.29 U	0.21 U	0.17 U	0.90 U	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	mg/kg	0.68 U	0.18 U	0.17 U [0.17 U]	0.17 U	0.21 U	0.17 U	0.90 U	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorobenzilate	mg/kg	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	mg/kg	1.2 U	0.31 U	0.30 U [0.30 U]	0.29 U	0.21 U	0.17 U	0.90 U	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	mg/kg	1.2 U	0.31 U	0.30 U [0.30 U]	0.29 U	0.21 U	0.17 U	0.90 U	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	mg/kg	0.91 U	0.24 U	0.23 U [0.23 U]	0.22 U	1.0 U	0.84 U	4.3 UJ	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	mg/kg	1.5 U	0.39 U	0.37 U [0.38 U]	0.37 U	1.0 U	0.84 U	4.3 UJ	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroquinoline-1-oxide	mg/kg	NA	NA	NA	NA	2.1 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	mg/kg	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	mg/kg	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE 2-15
FORMER RAILYARD
ORGANIC COMPOUNDS SOIL ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID: / Sample Depth (ft bgs): / Date Collected:	Units	BH11 0 - 2 03/06/07	BH11 2 - 4 03/06/07	BH12 0 - 2 03/06/07	BH12 2 - 4 03/06/07	NS-RS-4 2.5 - 3 06/13/95	RS-1 0 - 1 06/13/95	RS-2 0 - 1 06/13/95	RS-2-1 0 - 1 06/10/96	RS-2-2 0 - 1 06/10/96	RS-2-3 0 - 1 06/10/96	RS-2-4 0 - 1 06/10/96	RS-2-5 0 - 1 06/10/96	RS-2-6 0 - 1 06/10/96	RS-2-7 0 - 1 06/10/96	RS-2-8 0 - 1 06/10/96
Semivolatile Organics (Cont'd.)																
7,12-Dimethylbenz(a)anthracene	mg/kg	NA	NA	NA	NA	2.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	mg/kg	NA	NA	NA	NA	2.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/kg	0.031 J	0.31 U	0.30 U [0.30 U]	0.068 J	0.21 U	0.17 U	0.90 U	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	mg/kg	0.032 J	0.31 U	0.0076 J [0.011 J]	0.035 J	0.21 U	0.17 U	0.90 U	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	mg/kg	1.2 U	0.31 U	0.30 U [0.30 U]	0.29 U	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	mg/kg	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/kg	0.10 J	0.31 U	0.0092 J [0.0086 J]	0.023 J	0.21 U	0.091 J	0.90 U	NA	NA	NA	NA	NA	NA	NA	NA
Aramite	mg/kg	NA	NA	NA	NA	1.0 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	mg/kg	0.18 U	0.048 U	0.045 U [0.046 U]	0.044 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	mg/kg	1.2 U	0.31 U	0.30 U [0.30 U]	0.29 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	mg/kg	NA	NA	NA	NA	0.21 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/kg	0.31 J	0.0079 J	0.036 J [0.028 J]	0.060 J	0.21 U	0.15 J	0.22 J	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	mg/kg	0.36 J	0.31 U	0.035 J [0.021 J]	0.061 J	0.21 U	0.11 J	0.22 J	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	mg/kg	0.43 J	0.31 U	0.046 J [0.037 J]	0.066 J	0.21 U	0.16 J	0.46 J	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	mg/kg	0.20 J	0.31 U	0.30 U [0.30 U]	0.031 J	0.21 U	0.067 J	0.90 UJ	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	mg/kg	0.19 J	0.31 U	0.021 J [0.0099 J]	0.043 J	0.21 U	0.046 J	0.90 UJ	NA	NA	NA	NA	NA	NA	NA	NA
Benzoic Acid	mg/kg	NA	NA	NA	NA	0.42 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	mg/kg	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	mg/kg	1.2 U	0.31 U	0.30 U [0.30 U]	0.29 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	mg/kg	1.2 U	0.31 U	0.30 U [0.30 U]	0.29 U	0.21 U	0.17 U	0.90 U	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	mg/kg	0.36 U	0.095 U	0.090 U [0.091 U]	0.089 U	0.21 U	0.17 U	0.90 U	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	mg/kg	1.2 U	0.31 U	0.30 U [0.30 U]	0.29 U	0.21 U	0.17 U	0.90 U	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	mg/kg	1.2 U	0.31 U	0.30 U [0.30 U]	0.29 U	0.21 U	0.17 U	9.2	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	mg/kg	1.2 U	0.31 U	0.30 U [0.30 U]	0.29 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	mg/kg	1.2 U	0.31 U	0.30 U [0.30 U]	0.29 U	0.21 U	0.17 U	0.90 U	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	mg/kg	0.42 J	0.0091 J	0.047 J [0.034 J]	0.072 J	0.21 U	0.18	0.35 J	NA	NA	NA	NA	NA	NA	NA	NA
Diallate	mg/kg	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	mg/kg	1.2 U	0.31 U	0.30 U [0.30 U]	0.29 U	0.21 U	0.17 U	0.90 UJ	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	mg/kg	1.2 U	0.31 U	0.30 U [0.30 U]	0.29 U	0.21 U	0.19	0.90 U	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	mg/kg	1.2 U	0.31 U	0.30 U [0.30 U]	0.29 U	0.21 U	0.17 U	0.90 U	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	mg/kg	1.2 U	0.31 U	0.30 U [0.30 U]	0.29 U	0.21 U	0.17 U	0.90 U	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	mg/kg	1.2 U	0.31 U	0.30 U [0.30 U]	0.037 J	3.2	0.046 J	0.90 U	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	mg/kg	1.2 U	0.31 U	0.30 U [0.30 U]	0.29 U	0.21 U	0.17 U	0.90 UJ	NA	NA	NA	NA	NA	NA	NA	NA
Diphenylamine	mg/kg	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	mg/kg	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	mg/kg	0.58 J	0.0091 J	0.073 J [0.049 J]	0.13 J	0.21 U	0.32	0.41 J	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	mg/kg	0.040 J	0.31 U	0.30 U [0.30 U]	0.029 J	0.21 U	0.056 J	0.90 U	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	mg/kg	1.2 U	0.31 U	0.30 U [0.30 U]	0.29 U	0.21 U	0.17 U	0.90 U	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	mg/kg	0.18 U	0.048 U	0.045 U [0.046 U]	0.044 U	0.21 U	0.17 U	0.90 U	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	mg/kg	1.2 U	0.31 U	0.30 U [0.30 U]	0.29 U	0.21 U	0.17 U	0.90 U	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE 2-15
FORMER RAILYARD
ORGANIC COMPOUNDS SOIL ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID: / Sample Depth (ft bgs): / Date Collected:	Units	BH11 0 - 2 03/06/07	BH11 2 - 4 03/06/07	BH12 0 - 2 03/06/07	BH12 2 - 4 03/06/07	NS-RS-4 2.5 - 3 06/13/95	RS-1 0 - 1 06/13/95	RS-2 0 - 1 06/13/95	RS-2-1 0 - 1 06/10/96	RS-2-2 0 - 1 06/10/96	RS-2-3 0 - 1 06/10/96	RS-2-4 0 - 1 06/10/96	RS-2-5 0 - 1 06/10/96	RS-2-6 0 - 1 06/10/96	RS-2-7 0 - 1 06/10/96	RS-2-8 0 - 1 06/10/96
Semivolatile Organics (Cont'd.)																
Hexachloroethane	mg/kg	1.2 U	0.31 U	0.30 U [0.30 U]	0.29 U	0.21 U	0.17 U	0.90 U	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorophene	mg/kg	NA	NA	NA	NA	0.21 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloropropene	mg/kg	NA	NA	NA	NA	2.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	mg/kg	0.20 J	0.31 U	0.021 J [0.30 U]	0.030 J	0.21 U	0.046 J	0.90 UJ	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	mg/kg	1.2 U	0.31 U	0.30 U [0.30 U]	0.29 U	0.21 U	0.17 U	0.90 U	NA	NA	NA	NA	NA	NA	NA	NA
Isosafrole	mg/kg	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	mg/kg	NA	NA	NA	NA	2.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	mg/kg	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/kg	0.15 J	0.013 J	0.014 J [0.025 J]	0.064 J	0.21 U	0.49	0.26 J	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	mg/kg	1.2 U	0.31 U	0.30 U [0.30 U]	0.29 U	0.21 U	0.17 U	0.90 U	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiethylamine	mg/kg	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	mg/kg	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	mg/kg	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	mg/kg	1.2 U	0.31 U	0.30 U [0.30 U]	0.29 U	0.21 U	0.17 U	0.90 U	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	mg/kg	1.2 U	0.31 U	0.30 U [0.30 U]	0.29 U	0.21 U	0.17 U	0.90 U	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomethylethylamine	mg/kg	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	mg/kg	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	mg/kg	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	mg/kg	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	mg/kg	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	mg/kg	NA	NA	NA	NA	0.42 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	mg/kg	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	mg/kg	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	mg/kg	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	mg/kg	0.68 U	0.18 U	0.17 U [0.17 U]	0.17 U	1.0 U	0.84 U	4.3 U	NA	NA	NA	NA	NA	NA	NA	NA
Phenacetin	mg/kg	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	mg/kg	0.45 J	0.31 U	0.062 J [0.041 J]	0.11 J	0.21 U	0.60	0.33 J	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	mg/kg	1.2 U	0.31 U	0.30 U [0.30 U]	0.29 U	0.21 U	0.024 J	0.90 U	NA	NA	NA	NA	NA	NA	NA	NA
Pronamide	mg/kg	NA	NA	NA	NA	0.42 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	mg/kg	0.58 J	0.010 J	0.076 J [0.054 J]	0.14 J	0.21 U	0.30	0.53 J	NA	NA	NA	NA	NA	NA	NA	NA
Pyridine	mg/kg	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	mg/kg	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	mg/kg	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	mg/kg	1.2 U	0.31 U	0.30 U [0.30 U]	0.29 U	0.21 U	0.17 U	0.90 U	NA	NA	NA	NA	NA	NA	NA	NA
PCBs																
Aroclor-1016	mg/kg	0.30 U	0.31 U	1.9 U [1.9 U]	0.29 U	0.21 U	0.7 U	3.6 U	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	mg/kg	0.30 U	0.31 U	1.9 U [1.9 U]	0.29 U	0.21 U	0.7 U	3.6 U	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	mg/kg	0.30 U	0.31 U	1.9 U [1.9 U]	0.29 U	0.21 U	0.7 U	3.6 U	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	mg/kg	0.30 U	0.31 U	1.9 U [1.9 U]	0.29 U	0.21 U	0.7 U	3.6 U	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	mg/kg	0.30 U	0.31 U	1.9 U [1.9 U]	0.29 U	0.21 U	0.7 U	3.6 U	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE 2-15
FORMER RAILYARD
ORGANIC COMPOUNDS SOIL ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID: Sample Depth (ft bgs): Date Collected:	Units	BH11 0 - 2 03/06/07	BH11 2 - 4 03/06/07	BH12 0 - 2 03/06/07	BH12 2 - 4 03/06/07	NS-RS-4 2.5 - 3 06/13/95	RS-1 0 - 1 06/13/95	RS-2 0 - 1 06/13/95	RS-2-1 0 - 1 06/10/96	RS-2-2 0 - 1 06/10/96	RS-2-3 0 - 1 06/10/96	RS-2-4 0 - 1 06/10/96	RS-2-5 0 - 1 06/10/96	RS-2-6 0 - 1 06/10/96	RS-2-7 0 - 1 06/10/96	RS-2-8 0 - 1 06/10/96
PCBs (Cont'd.)																
Aroclor-1254	mg/kg	0.33	0.31 U	1.9 U [1.9 U]	0.11 J	0.21 U	0.7 U	3.6 U	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	mg/kg	0.30 U	0.31 U	11 [11]	0.29 U	0.21 U	0.83	3.9	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	mg/kg	0.33	0.31 U	11 [11]	0.11 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics																
Aluminum	mg/kg	NA	NA	NA	NA	NA	3,870	6,630	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	mg/kg	0.290 J	0.190 UJ	0.190 J [0.840 J]	0.130 J	1.27 UJ*	1.12 J	5.89 J	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	mg/kg	3.70	5.00	4.40 [5.10]	2.20	7.04 J	3.04	11.8	NA	NA	NA	NA	NA	NA	NA	NA
Barium	mg/kg	69.2	68.4	158 [95.7]	135	62.2 J	44.4	247	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	mg/kg	0.180 U	0.240	0.180 U [0.180 U]	0.180 U	0.633 U	0.526 U	0.543	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	mg/kg	1.30	0.190	3.30 J [1.60 J]	0.320	0.158 J	0.747	6.38	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	mg/kg	NA	NA	NA	NA	NA	7,750 J	31,300 J	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	mg/kg	95.8	21.6	918 [572]	137	22.2 J	60.3	1,110	NA	NA	NA	NA	NA	NA	NA	NA
Chromium VI (Hexavalent)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	mg/kg	11.5	8.40	111 [38.7]	1.90	6.33 U	8.52	143	NA	NA	NA	NA	NA	NA	NA	NA
Copper	mg/kg	117	13.6	387 J [120 J]	10.9	12.1 J	53.4	274	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	mg/kg	NA	NA	NA	NA	0.320 U	0.260 U	0.270 U	NA	NA	NA	NA	NA	NA	NA	NA
Iron	mg/kg	NA	NA	NA	NA	NA	45,400	12,000	NA	NA	NA	NA	NA	NA	NA	NA
Lead	mg/kg	93.2	11.0	189 [77.7]	8.80	6.29 J	97.9 J	530 J	279 J	237 J	335 J	456 J	769 J	214 J [1,370 J]	159 J	209 J
Lead - Coarse Fraction	mg/kg	143	NA	229 J [48.2 J]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Fine Fraction	mg/kg	364	NA	731 J [78.0 J]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Total (Calculated by fine/coarse fraction)	mg/kg	217	NA	400 J [56.8 J]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	mg/kg	NA	NA	NA	NA	NA	1,340	6,580	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	mg/kg	2,540	191	7,380 [6,770]	7,470	NA	955 J	3,320 J	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	mg/kg	0.100	0.0270 J	0.970 J [0.220 J]	0.0440 U	0.0633 U	0.109	0.546	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	mg/kg	64.9	23.0	787 [384]	5.10	17.5 J	47.5	1,010	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	mg/kg	NA	NA	NA	NA	NA	526 U	944	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	mg/kg	0.210	0.190 U	0.180 U [0.180 U]	0.180 U	1.27 U*	1.60 J	4.31 J	NA	NA	NA	NA	NA	NA	NA	NA
Silver	mg/kg	0.210	0.100	0.220 J [1.20 J]	0.0810 J	1.27 UJ*	0.526 UJ*	1.36 UJ*	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	mg/kg	NA	NA	NA	NA	NA	526 U	543 U	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/kg	0.0530 J	0.130	0.0200 J [0.0270 J]	0.0120 J	0.317 U	0.263 U	0.272 U	NA	NA	NA	NA	NA	NA	NA	NA
Tin	mg/kg	NA	NA	NA	NA	127 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	mg/kg	11.5	26.5	33.9 [26.0]	22.0	26.9 J	10.4	32.1	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	mg/kg	473	48.0	355 [421]	20.2	37.0	256	2,630	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE 2-15
FORMER RAILYARD
ORGANIC COMPOUNDS SOIL ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID: / Sample Depth (ft bgs): / Date Collected:	Units	RS-2A 0 - 1 08/26/05	RS-3 0 - 1 06/13/95	RS-3A 0 - 1 08/26/05	RS-4 0 - 1 06/13/95	RS-5 0 - 1 06/13/95	RS-5-1 0 - 1 06/10/96	RS-5-2 0 - 1 06/10/96	RS-5-3 0 - 1 06/10/96	RS-5-4 0 - 1 06/10/96	RS-5-5 0 - 1 06/10/96	RS-5-6 0 - 1 06/10/96	RS-5-7 0 - 1 06/10/96	RS-5-8 0 - 1 06/10/96	RS-6 0 - 1 06/13/95
Volatile Organics															
1,1,1,2-Tetrachloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	mg/kg	NA	0.0054 U	NA	0.0053 U [0.0053 UJ]	0.0053 U	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U
1,1,2,2-Tetrachloroethane	mg/kg	NA	0.0054 U	NA	0.0053 U [0.0053 UJ]	0.0053 U	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	mg/kg	NA	0.0054 U	NA	0.0053 U [0.0053 UJ]	0.0053 U	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U
1,1-Dichloroethane	mg/kg	NA	0.0054 U	NA	0.0053 U [0.0053 UJ]	0.0053 U	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U
1,1-Dichloroethene	mg/kg	NA	0.0054 U	NA	0.0053 U [0.0053 UJ]	0.0053 U	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U
1,2,3-Trichloropropane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	NA	0.0054 U	NA	0.0053 U [0.0053 UJ]	0.0053 U	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U
1,2-Dichloroethane	mg/kg	NA	0.0054 U	NA	0.0053 U [0.0053 UJ]	0.0053 U	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U
1,2-Dichloroethene (total)	mg/kg	NA	0.0054 U	NA	0.0053 U [0.0053 UJ]	0.0053 U	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U
1,2-Dichloropropane	mg/kg	NA	0.0054 U	NA	0.0053 U [0.0053 UJ]	0.0053 U	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U
1,3-Dichlorobenzene	mg/kg	NA	0.0054 U	NA	0.0053 U [0.0053 UJ]	0.0053 U	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U
1,4-Dichlorobenzene	mg/kg	NA	0.0054 U	NA	0.0053 U [0.0053 UJ]	0.0053 U	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U
1,4-Dioxane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	mg/kg	NA	0.054 U	NA	0.053 U [0.053 UJ]	0.053 U	NA	NA	NA	NA	NA	NA	NA	NA	0.052 U
2-Chloro-1,3-butadiene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	mg/kg	NA	0.054 U	NA	0.053 U [0.053 UJ]	0.053 U	NA	NA	NA	NA	NA	NA	NA	NA	0.052 U
3-Chloropropene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	mg/kg	NA	0.054 U	NA	0.053 U [0.053 UJ]	0.053 U	NA	NA	NA	NA	NA	NA	NA	NA	0.052 U
Acetone	mg/kg	NA	0.054 UJ	NA	0.053 UJ [0.053 UJ]	0.011 J	NA	NA	NA	NA	NA	NA	NA	NA	0.052 UJ
Acetonitrile	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	mg/kg	NA	0.0054 U	NA	0.0053 U [0.0053 UJ]	0.0053 U	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U
Bromodichloromethane	mg/kg	NA	0.0054 U	NA	0.0053 U [0.0053 UJ]	0.0053 U	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U
Bromoform	mg/kg	NA	0.0054 U	NA	0.0053 U [0.0053 UJ]	0.0053 U	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U
Bromomethane	mg/kg	NA	0.0054 U	NA	0.0053 UJ [0.0053 UJ]	0.0053 UJ	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 UJ
Carbon Disulfide	mg/kg	NA	0.0054 U	NA	0.0053 U [0.0053 UJ]	0.0053 U	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U
Carbon Tetrachloride	mg/kg	NA	0.0054 U	NA	0.0053 U [0.0053 UJ]	0.0053 U	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U
Chlorobenzene	mg/kg	NA	0.0054 U	NA	0.0053 U [0.0053 UJ]	0.0053 U	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U
Chloroethane	mg/kg	NA	0.0054 UJ	NA	0.0053 UJ [0.0053 UJ]	0.0053 UJ	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 UJ
Chloroform	mg/kg	NA	0.0054 U	NA	0.0053 U [0.0053 UJ]	0.0053 U	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U
Chloromethane	mg/kg	NA	0.0054 UJ	NA	0.0053 U [0.0053 UJ]	0.0053 U	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U
cis-1,2-Dichloroethene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	mg/kg	NA	0.0054 U	NA	0.0053 U [0.0053 UJ]	0.0053 U	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U
Cyclohexane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE 2-15
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ORGANIC COMPOUNDS SOIL ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID: / Sample Depth (ft bgs): / Date Collected:	Units	RS-2A 0 - 1 08/26/05	RS-3 0 - 1 06/13/95	RS-3A 0 - 1 08/26/05	RS-4 0 - 1 06/13/95	RS-5 0 - 1 06/13/95	RS-5-1 0 - 1 06/10/96	RS-5-2 0 - 1 06/10/96	RS-5-3 0 - 1 06/10/96	RS-5-4 0 - 1 06/10/96	RS-5-5 0 - 1 06/10/96	RS-5-6 0 - 1 06/10/96	RS-5-7 0 - 1 06/10/96	RS-5-8 0 - 1 06/10/96	RS-6 0 - 1 06/13/95
Volatile Organics (Cont'd.)															
Dibromochloromethane	mg/kg	NA	0.0054 U	NA	0.0053 U [0.0053 UJ]	0.0053 U	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U
Dibromomethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	mg/kg	NA	0.0054 U	NA	0.0053 U [0.0053 UJ]	0.0053 U	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U
Iodomethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isobutanol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	mg/kg	NA	0.0078 UJ	NA	0.0052 U [0.0050 UJ]	0.0048 U	NA	NA	NA	NA	NA	NA	NA	NA	0.0061 U
Propionitrile	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	mg/kg	NA	0.0054 U	NA	0.0053 U [0.0053 UJ]	0.0053 U	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U
Tetrachloroethene	mg/kg	NA	0.0054 U	NA	0.0053 U [0.0053 UJ]	0.0053 U	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U
Toluene	mg/kg	NA	0.0054 U	NA	0.0053 U [0.0053 UJ]	0.0053 U	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U
trans-1,2-Dichloroethene	mg/kg	NA	0.0054 U	NA	0.0053 U [0.0053 UJ]	0.0053 U	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U
trans-1,3-Dichloropropene	mg/kg	NA	0.0054 U	NA	0.0053 U [0.0053 UJ]	0.0053 U	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U
trans-1,4-Dichloro-2-butene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	mg/kg	NA	0.0054 U	NA	0.0053 U [0.0053 UJ]	0.0053 U	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U
Trichlorofluoromethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Acetate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	mg/kg	NA	0.0054 U	NA	0.0053 U [0.0053 UJ]	0.0053 U	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U
Total 1,3-Dichloropropenes	mg/kg	NA	0.0054 U	NA	0.0053 U [0.0053 U]	0.0053 U	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U
Total Xylenes	mg/kg	NA	0.0054 U	NA	0.0053 U [0.0053 UJ]	0.0053 U	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U
Semivolatile Organics															
1,2,3,4-Tetrachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,5-Tetrachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4,5-Tetrachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	NA	0.18 U	NA	0.17 U [0.35 U]	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U
1,2-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID: Sample Depth (ft bgs): Date Collected:	Units	RS-2A 0 - 1 08/26/05	RS-3 0 - 1 06/13/95	RS-3A 0 - 1 08/26/05	RS-4 0 - 1 06/13/95	RS-5 0 - 1 06/13/95	RS-5-1 0 - 1 06/10/96	RS-5-2 0 - 1 06/10/96	RS-5-3 0 - 1 06/10/96	RS-5-4 0 - 1 06/10/96	RS-5-5 0 - 1 06/10/96	RS-5-6 0 - 1 06/10/96	RS-5-7 0 - 1 06/10/96	RS-5-8 0 - 1 06/10/96	RS-6 0 - 1 06/13/95
Semivolatile Organics (Cont'd.)															
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	mg/kg	NA	0.18 U	NA	0.17 U [0.35 U]	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U
2,3,4,6-Tetrachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,5,6-Tetrachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	mg/kg	NA	0.18 U	NA	0.17 U [0.35 U]	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U
2,4,6-Trichlorophenol	mg/kg	NA	0.18 U	NA	0.17 U [0.35 U]	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U
2,4-Diaminotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	mg/kg	NA	0.18 U	NA	0.17 U [0.35 U]	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U
2,4-Dimethylphenol	mg/kg	NA	0.18 U	NA	0.028 J [0.35 U]	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U
2,4-Dinitrophenol	mg/kg	NA	0.86 U	NA	0.85 U [1.7 U]	1.7 U	NA	NA	NA	NA	NA	NA	NA	NA	0.84 U
2,4-Dinitrotoluene	mg/kg	NA	0.18 U	NA	0.17 U [0.35 U]	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U
2,6-Dichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	mg/kg	NA	0.18 U	NA	0.17 U [0.35 U]	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U
2-Acetylaminofluorene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	mg/kg	NA	0.18 U	NA	0.17 U [0.35 U]	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U
2-Chlorophenol	mg/kg	NA	0.18 U	NA	0.17 U [0.35 U]	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U
2-Methylnaphthalene	mg/kg	NA	0.14 J	NA	1.1 [0.76]	0.12 J	NA	NA	NA	NA	NA	NA	NA	NA	0.039 J
2-Methylphenol	mg/kg	NA	0.18 U	NA	0.17 U [0.35 U]	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U
2-Naphthylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	mg/kg	NA	0.86 U	NA	0.85 U [1.7 U]	1.7 U	NA	NA	NA	NA	NA	NA	NA	NA	0.84 U
2-Nitrophenol	mg/kg	NA	0.18 U	NA	0.17 U [0.35 U]	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U
2-Picoline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	mg/kg	NA	0.35 U	NA	0.35 U [0.70 U]	0.71 U	NA	NA	NA	NA	NA	NA	NA	NA	0.35 U
3,3'-Dimethylbenzidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	mg/kg	NA	0.86 U	NA	0.85 U [1.7 U]	1.7 U	NA	NA	NA	NA	NA	NA	NA	NA	0.84 U
4,4'-Methylene-bis(2-chloroaniline)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	mg/kg	NA	0.86 U	NA	0.85 U [1.7 U]	1.7 U	NA	NA	NA	NA	NA	NA	NA	NA	0.84 U
4-Aminobiphenyl	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	mg/kg	NA	0.18 U	NA	0.17 U [0.35 U]	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U
4-Chloro-3-Methylphenol	mg/kg	NA	0.18 U	NA	0.17 U [0.35 U]	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U
4-Chloroaniline	mg/kg	NA	0.18 U	NA	0.17 U [0.35 U]	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U
4-Chlorobenzilate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	mg/kg	NA	0.18 U	NA	0.17 U [0.35 U]	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U
4-Methylphenol	mg/kg	NA	0.18 U	NA	0.17 U [0.35 U]	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U
4-Nitroaniline	mg/kg	NA	0.86 UJ	NA	0.85 U [1.7 U]	1.7 U	NA	NA	NA	NA	NA	NA	NA	NA	0.84 U
4-Nitrophenol	mg/kg	NA	0.86 UJ	NA	0.85 U [1.7 U]	1.7 U	NA	NA	NA	NA	NA	NA	NA	NA	0.84 U
4-Nitroquinoline-1-oxide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE 2-15
FORMER RAILYARD
ORGANIC COMPOUNDS SOIL ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID: / Sample Depth (ft bgs): / Date Collected:	Units	RS-2A 0 - 1 08/26/05	RS-3 0 - 1 06/13/95	RS-3A 0 - 1 08/26/05	RS-4 0 - 1 06/13/95	RS-5 0 - 1 06/13/95	RS-5-1 0 - 1 06/10/96	RS-5-2 0 - 1 06/10/96	RS-5-3 0 - 1 06/10/96	RS-5-4 0 - 1 06/10/96	RS-5-5 0 - 1 06/10/96	RS-5-6 0 - 1 06/10/96	RS-5-7 0 - 1 06/10/96	RS-5-8 0 - 1 06/10/96	RS-6 0 - 1 06/13/95
Semivolatile Organics (Cont'd.)															
7,12-Dimethylbenz(a)anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/kg	NA	0.18 U	NA	0.020 J [0.35 U]	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U
Acenaphthylene	mg/kg	NA	0.18 U	NA	0.17 U [0.35 U]	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U
Acetophenone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/kg	NA	0.026 J	NA	0.045 J [0.35 U]	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U
Aramite	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/kg	NA	0.14 J	NA	0.13 J [0.085 J]	0.079 J	NA	NA	NA	NA	NA	NA	NA	NA	0.069 J
Benzo(a)pyrene	mg/kg	NA	0.12 J	NA	0.11 J [0.065 J]	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.064 J
Benzo(b)fluoranthene	mg/kg	NA	0.30	NA	0.14 J [0.095 J]	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.098 J
Benzo(g,h,i)perylene	mg/kg	NA	0.096 J	NA	0.052 J [0.047 J]	0.040 J	NA	NA	NA	NA	NA	NA	NA	NA	0.037 J
Benzo(k)fluoranthene	mg/kg	NA	0.18 U	NA	0.081 J [0.038 J]	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.052 J
Benzoic Acid	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	mg/kg	NA	0.18 U	NA	0.17 U [0.35 U]	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U
bis(2-Chloroethyl)ether	mg/kg	NA	0.18 U	NA	0.17 U [0.35 U]	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U
bis(2-Ethylhexyl)phthalate	mg/kg	NA	0.074 J	NA	0.29 [0.35 U]	2.3	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U
Butylbenzylphthalate	mg/kg	NA	0.18 U	NA	0.20 [0.099 J]	0.054 J	NA	NA	NA	NA	NA	NA	NA	NA	0.027 J
Caprolactam	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	mg/kg	NA	0.18 U	NA	0.17 U [0.35 U]	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U
Chrysene	mg/kg	NA	0.19	NA	0.20 [0.13 J]	0.11 J	NA	NA	NA	NA	NA	NA	NA	NA	0.089 J
Diallate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	mg/kg	NA	0.18 U	NA	0.17 U [0.35 U]	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U
Dibenzofuran	mg/kg	NA	0.036 J	NA	0.25 [0.17 J]	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U
Diethylphthalate	mg/kg	NA	0.18 U	NA	0.17 U [0.35 U]	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U
Dimethylphthalate	mg/kg	NA	0.18 U	NA	0.17 U [0.35 U]	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U
Di-n-Butylphthalate	mg/kg	NA	0.11 J	NA	2.2 [4.1]	1.7	NA	NA	NA	NA	NA	NA	NA	NA	2.1
Di-n-Octylphthalate	mg/kg	NA	0.18 U	NA	0.17 U [0.35 U]	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U
Diphenylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	mg/kg	NA	0.23	NA	0.27 [0.17 J]	0.14 J	NA	NA	NA	NA	NA	NA	NA	NA	0.15 J
Fluorene	mg/kg	NA	0.18 U	NA	0.045 J [0.35 U]	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U
Hexachlorobenzene	mg/kg	NA	0.18 U	NA	0.17 U [0.35 U]	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U
Hexachlorobutadiene	mg/kg	NA	0.18 U	NA	0.17 U [0.35 U]	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U
Hexachlorocyclopentadiene	mg/kg	NA	0.18 U	NA	0.17 U [0.35 U]	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U

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TABLE 2-15
FORMER RAILYARD
ORGANIC COMPOUNDS SOIL ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID: Sample Depth (ft bgs): Date Collected:	Units	RS-2A 0 - 1 08/26/05	RS-3 0 - 1 06/13/95	RS-3A 0 - 1 08/26/05	RS-4 0 - 1 06/13/95	RS-5 0 - 1 06/13/95	RS-5-1 0 - 1 06/10/96	RS-5-2 0 - 1 06/10/96	RS-5-3 0 - 1 06/10/96	RS-5-4 0 - 1 06/10/96	RS-5-5 0 - 1 06/10/96	RS-5-6 0 - 1 06/10/96	RS-5-7 0 - 1 06/10/96	RS-5-8 0 - 1 06/10/96	RS-6 0 - 1 06/13/95
Semivolatile Organics (Cont'd.)															
Hexachloroethane	mg/kg	NA	0.18 U	NA	0.17 U [0.35 U]	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U
Hexachlorophene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloropropene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	mg/kg	NA	0.068 J	NA	0.036 J [0.35 U]	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.032 J
Isophorone	mg/kg	NA	0.18 U	NA	0.17 U [0.35 U]	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U
Isosafrole	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/kg	NA	0.089 J	NA	0.65 [0.45]	0.078 J	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U
Nitrobenzene	mg/kg	NA	0.18 U	NA	0.17 U [0.35 U]	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U
N-Nitrosodiethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	mg/kg	NA	0.18 U	NA	0.17 U [0.35 U]	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U
N-Nitrosodiphenylamine	mg/kg	NA	0.18 U	NA	0.17 U [0.35 U]	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U
N-Nitrosomethylethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	mg/kg	NA	0.86 U	NA	0.85 U [1.7 U]	1.7 U	NA	NA	NA	NA	NA	NA	NA	NA	0.84 U
Phenacetin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	mg/kg	NA	0.17 J	NA	0.55 [0.35]	0.11 J	NA	NA	NA	NA	NA	NA	NA	NA	0.090 J
Phenol	mg/kg	NA	0.18 U	NA	0.17 U [0.35 U]	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U
Pronamide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	mg/kg	NA	0.26	NA	0.20 [0.13 J]	0.085 J	NA	NA	NA	NA	NA	NA	NA	NA	0.091 J
Pyridine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	mg/kg	NA	0.18 U	NA	0.17 U [0.35 U]	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U
PCBs															
Aroclor-1016	mg/kg	NA	0.71 U	NA	0.17 U [0.17 U]	3.6 U	0.39 U	0.18 U	0.19 U	1.9 U	0.42 U	0.38 U	0.19 U [0.18 U]	0.38 U	1.7 U
Aroclor-1221	mg/kg	NA	0.71 U	NA	0.17 U [0.17 U]	3.6 U	0.39 U	0.18 U	0.19 U	1.9 U	0.42 U	0.38 U	0.19 U [0.18 U]	0.38 U	1.7 U
Aroclor-1232	mg/kg	NA	0.71 U	NA	0.17 U [0.17 U]	3.6 U	0.39 U	0.18 U	0.19 U	1.9 U	0.42 U	0.38 U	0.19 U [0.18 U]	0.38 U	1.7 U
Aroclor-1242	mg/kg	NA	0.71 U	NA	0.17 U [0.17 U]	3.6 U	0.39 U	0.18 U	0.19 U	1.9 U	0.42 U	0.38 U	0.19 [0.18 U]	0.38 U	1.7 U
Aroclor-1248	mg/kg	NA	0.71 U	NA	0.17 U [0.17 U]	3.6 U	0.39 U	0.18 U	0.19 U	1.9 U	0.42 U	0.38 U	0.19 U [0.18 UJ]	0.38 U	1.7 U

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
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PCBs (Cont'd.)															
Aroclor-1254	mg/kg	NA	0.71 U	NA	0.17 U [0.17 U]	55	0.79 U	0.18 U	0.38 U	3.7 U	0.83 U	0.75 U	0.37 U [0.37 U]	0.75 U	1.7 U
Aroclor-1260	mg/kg	NA	6.9	NA	0.17 U [0.17 U]	7.1 U	2.7 J	0.7 J	1 J	4.4 J	1.9	4.2 J	1.4 J [1.4]	2.1 J	7
Total PCBs	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics															
Aluminum	mg/kg	NA	8,000	NA	3,710 J [2,920 J]	3,590 J	NA	NA	NA	NA	NA	NA	NA	NA	7,160 J
Antimony	mg/kg	NA	1.34 UJ*	NA	1.06 UJ* [1.06 UJ*]	1.25 J	NA	NA	NA	NA	NA	NA	NA	NA	2.11 J
Arsenic	mg/kg	NA	6.93	NA	6.00 J [7.02 J]	31.1 J	NA	NA	NA	NA	NA	NA	NA	NA	6.48 J
Barium	mg/kg	NA	117	NA	76.8 J [82.1 J]	81.8 J	NA	NA	NA	NA	NA	NA	NA	NA	85.7 J
Beryllium	mg/kg	NA	0.591	NA	0.636 J [0.740 J]	0.748 J	NA	NA	NA	NA	NA	NA	NA	NA	0.524 UJ
Cadmium	mg/kg	NA	2.46	NA	0.775 J [0.812 J]	0.812 J	NA	NA	NA	NA	NA	NA	NA	NA	1.19 J
Calcium	mg/kg	NA	34,600 J	NA	56,900 J [24,600 J]	45,700 J	NA	NA	NA	NA	NA	NA	NA	NA	30,400 J
Chromium Total	mg/kg	90.2 [141]	273	180	62.8 J [62.3 J]	99.7 J	NA	NA	NA	NA	NA	NA	NA	NA	205 J
Chromium VI (Hexavalent)	mg/kg	0.830 U [0.830 U]	NA	0.830 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	mg/kg	NA	44.6	NA	15.6 [15.8]	21.7	NA	NA	NA	NA	NA	NA	NA	NA	36.5
Copper	mg/kg	NA	114	NA	27.3 J [31.4 J]	41.0 J	NA	NA	NA	NA	NA	NA	NA	NA	75.6 J
Cyanide (total)	mg/kg	NA	0.270 U	NA	0.260 U [0.260 U]	0.320	NA	NA	NA	NA	NA	NA	NA	NA	0.270
Iron	mg/kg	NA	43,000	NA	14,400 J [22,400 J]	18,400 J	NA	NA	NA	NA	NA	NA	NA	NA	50,100 J
Lead	mg/kg	NA	161 J	NA	30.1 J [29.8 J]	44.7 J	NA	NA	NA	NA	NA	NA	NA	NA	98.1 J
Lead - Coarse Fraction	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Fine Fraction	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Total (Calculated by fine/coarse fraction)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	mg/kg	NA	4,180	NA	5,340 J [3,390 J]	4,740 J	NA	NA	NA	NA	NA	NA	NA	NA	6,340 J
Manganese	mg/kg	NA	5,030 J	NA	300 [463]	446	NA	NA	NA	NA	NA	NA	NA	NA	2,020
Mercury	mg/kg	NA	0.367	NA	0.0530 U [0.102]	0.111	NA	NA	NA	NA	NA	NA	NA	NA	0.143
Nickel	mg/kg	NA	271	NA	71.8 J [71.1 J]	106 J	NA	NA	NA	NA	NA	NA	NA	NA	198 J
Potassium	mg/kg	NA	1,150	NA	748 [528 U]	651	NA	NA	NA	NA	NA	NA	NA	NA	1,210
Selenium	mg/kg	NA	1.34 UJ*	NA	2.00 [2.35]	1.95	NA	NA	NA	NA	NA	NA	NA	NA	1.05 U*
Silver	mg/kg	NA	1.34 UJ*	NA	1.06 UJ* [1.06 UJ*]	1.07 UJ*	NA	NA	NA	NA	NA	NA	NA	NA	1.05 UJ*
Sodium	mg/kg	NA	537 U	NA	530 U [528 U]	534 U	NA	NA	NA	NA	NA	NA	NA	NA	524 U
Thallium	mg/kg	NA	0.268 U	NA	0.265 U [0.264 U]	0.876	NA	NA	NA	NA	NA	NA	NA	NA	0.262 UJ
Tin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	mg/kg	NA	24.5	NA	16.7 J [17.8 J]	17.2 J	NA	NA	NA	NA	NA	NA	NA	NA	22.5 J
Zinc	mg/kg	NA	448	NA	111 [119]	143	NA	NA	NA	NA	NA	NA	NA	NA	306

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TABLE 2-15
FORMER RAILYARD
ORGANIC COMPOUNDS SOIL ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		RS-7	RS-8	RS-09	RS-10	RS-11	RS-12	RS-13	RS-14	RS-15	RS-16	RS-17	RS-18	RY-B1	RY-B2
Sample Depth (ft bgs):		0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	1	1
Date Collected:	Units	06/13/95	06/13/95	08/19/05	08/19/05	08/19/05	08/19/05	08/19/05	08/19/05	08/19/05	08/19/05	08/19/05	08/19/05	07/14/98	07/14/98
Volatile Organics															
1,1,1,2-Tetrachloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	mg/kg	0.0054 UJ	0.0052 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	mg/kg	0.0054 UJ	0.0052 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	mg/kg	0.0054 UJ	0.0052 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	mg/kg	0.0054 UJ	0.0052 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	mg/kg	0.0054 UJ	0.0052 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	0.0054 UJ	0.0052 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	mg/kg	0.0054 UJ	0.0052 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	mg/kg	0.0054 UJ	0.0052 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	mg/kg	0.0054 UJ	0.0052 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	0.0054 UJ	0.0052 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	0.0054 UJ	0.0052 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dioxane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	mg/kg	0.054 UJ	0.052 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloro-1,3-butadiene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	mg/kg	0.054 UJ	0.052 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Chloropropene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	mg/kg	0.054 UJ	0.052 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	mg/kg	0.015 UJ	0.052 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	mg/kg	0.0054 UJ	0.0052 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	mg/kg	0.0054 UJ	0.0052 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	mg/kg	0.0054 UJ	0.0052 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	mg/kg	0.0054 UJ	0.0052 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	mg/kg	0.0054 UJ	0.0052 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	mg/kg	0.0054 UJ	0.0052 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	mg/kg	0.0054 UJ	0.0052 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	mg/kg	0.0054 UJ	0.0052 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	mg/kg	0.0054 UJ	0.0052 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	mg/kg	0.0054 UJ	0.0052 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	mg/kg	0.0054 UJ	0.0052 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE 2-15
FORMER RAILYARD
ORGANIC COMPOUNDS SOIL ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		RS-7	RS-8	RS-09	RS-10	RS-11	RS-12	RS-13	RS-14	RS-15	RS-16	RS-17	RS-18	RY-B1	RY-B2
Sample Depth (ft bgs):		0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	1	1
Date Collected:	Units	06/13/95	06/13/95	08/19/05	08/19/05	08/19/05	08/19/05	08/19/05	08/19/05	08/19/05	08/19/05	08/19/05	08/19/05	07/14/98	07/14/98
Volatile Organics (Cont'd.)															
Dibromochloromethane	mg/kg	0.0054 UJ	0.0052 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromomethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	mg/kg	0.0054 UJ	0.0052 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isobutanol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	mg/kg	0.021 UJ	0.010 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Propionitrile	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	mg/kg	0.0054 UJ	0.0052 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	mg/kg	0.0054 UJ	0.0052 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	mg/kg	0.0071 UJ	0.0052 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	mg/kg	0.0054 UJ	0.0052 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	mg/kg	0.0054 UJ	0.0052 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,4-Dichloro-2-butene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	mg/kg	0.0054 UJ	0.0052 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Acetate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	mg/kg	0.0054 UJ	0.0052 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total 1,3-Dichloropropenes	mg/kg	0.0054 U	0.0052 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Xylenes	mg/kg	0.0033 J	0.0052 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organics															
1,2,3,4-Tetrachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,5-Tetrachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4,5-Tetrachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	0.18 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE 2-15
FORMER RAILYARD
ORGANIC COMPOUNDS SOIL ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		RS-7	RS-8	RS-09	RS-10	RS-11	RS-12	RS-13	RS-14	RS-15	RS-16	RS-17	RS-18	RY-B1	RY-B2
Sample Depth (ft bgs):		0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	1	1
Date Collected:	Units	06/13/95	06/13/95	08/19/05	08/19/05	08/19/05	08/19/05	08/19/05	08/19/05	08/19/05	08/19/05	08/19/05	08/19/05	07/14/98	07/14/98
Semivolatile Organics (Cont'd.)															
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	mg/kg	0.18 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6-Tetrachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,5,6-Tetrachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	mg/kg	0.18 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	mg/kg	0.18 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Diaminotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	mg/kg	0.18 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	mg/kg	0.071 J	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	mg/kg	0.86 U	0.84 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	mg/kg	0.18 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	mg/kg	0.18 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Acetylaminofluorene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	mg/kg	0.18 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	mg/kg	0.18 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	mg/kg	1.8	0.26	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	mg/kg	0.039 J	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Naphthylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	mg/kg	0.86 U	0.84 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	mg/kg	0.18 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Picoline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	mg/kg	0.35 U	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dimethylbenzidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	mg/kg	0.86 U	0.84 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-Methylene-bis(2-chloroaniline)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	mg/kg	0.86 U	0.84 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Aminobiphenyl	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	mg/kg	0.18 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	mg/kg	0.18 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	mg/kg	0.18 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorobenzilate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	mg/kg	0.18 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	mg/kg	0.037 J	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	mg/kg	0.86 U	0.84 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	mg/kg	0.86 U	0.84 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroquinoline-1-oxide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE 2-15
FORMER RAILYARD
ORGANIC COMPOUNDS SOIL ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		RS-7	RS-8	RS-09	RS-10	RS-11	RS-12	RS-13	RS-14	RS-15	RS-16	RS-17	RS-18	RY-B1	RY-B2
Sample Depth (ft bgs):		0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	1	1
Date Collected:	Units	06/13/95	06/13/95	08/19/05	08/19/05	08/19/05	08/19/05	08/19/05	08/19/05	08/19/05	08/19/05	08/19/05	08/19/05	07/14/98	07/14/98
Semivolatile Organics (Cont'd.)															
7,12-Dimethylbenz(a)anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/kg	0.18 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	mg/kg	0.18 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/kg	0.053 J	0.029 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aramite	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/kg	0.099 J	0.14 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	mg/kg	0.053 J	0.11 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	mg/kg	0.094 J	0.18	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	mg/kg	0.041 J	0.054 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	mg/kg	0.18 U	0.086 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzoic Acid	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	mg/kg	0.18 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	mg/kg	0.18 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	mg/kg	0.18 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	mg/kg	0.045 J	0.056 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	mg/kg	0.18 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	mg/kg	0.14 J	0.18	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diallate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	mg/kg	0.18 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	mg/kg	0.37	0.067 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	mg/kg	0.18 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	mg/kg	0.18 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	mg/kg	3.6 D	1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	mg/kg	3.6 D	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diphenylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	mg/kg	0.24	0.32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	mg/kg	0.061 J	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	mg/kg	0.18 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	mg/kg	0.18 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	mg/kg	0.18 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE 2-15
FORMER RAILYARD
ORGANIC COMPOUNDS SOIL ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		RS-7	RS-8	RS-09	RS-10	RS-11	RS-12	RS-13	RS-14	RS-15	RS-16	RS-17	RS-18	RY-B1	RY-B2
Sample Depth (ft bgs):		0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	1	1
Date Collected:	Units	06/13/95	06/13/95	08/19/05	08/19/05	08/19/05	08/19/05	08/19/05	08/19/05	08/19/05	08/19/05	08/19/05	08/19/05	07/14/98	07/14/98
Semivolatile Organics (Cont'd.)															
Hexachloroethane	mg/kg	0.18 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorophene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloropropene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	mg/kg	0.18 U	0.047 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	mg/kg	0.18 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isosafrole	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/kg	1.0	0.17	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	mg/kg	0.18 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	mg/kg	0.18 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	mg/kg	0.18 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomethylethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	mg/kg	0.86 U	0.84 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenacetin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	mg/kg	0.87	0.27	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	mg/kg	0.057 J	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pronamide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	mg/kg	0.12 J	0.19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyridine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	mg/kg	0.039 J	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs															
Aroclor-1016	mg/kg	0.18 U	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.33 U	0.33 U
Aroclor-1221	mg/kg	0.18 U	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.33 U	0.33 U
Aroclor-1232	mg/kg	0.18 U	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.33 U	0.33 U
Aroclor-1242	mg/kg	0.18 U	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.33 U	0.33 U
Aroclor-1248	mg/kg	0.18 U	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.33 U	0.33 U

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TABLE 2-15
FORMER RAILYARD
ORGANIC COMPOUNDS SOIL ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID: / Sample Depth (ft bgs): / Date Collected:	Units	RS-7 0 - 1 06/13/95	RS-8 0 - 1 06/13/95	RS-09 0 - 1 08/19/05	RS-10 0 - 1 08/19/05	RS-11 0 - 1 08/19/05	RS-12 0 - 1 08/19/05	RS-13 0 - 1 08/19/05	RS-14 0 - 1 08/19/05	RS-15 0 - 1 08/19/05	RS-16 0 - 1 08/19/05	RS-17 0 - 1 08/19/05	RS-18 0 - 1 08/19/05	RY-B1 1 07/14/98	RY-B2 1 07/14/98
PCBs (Cont'd.)															
Aroclor-1254	mg/kg	0.18 U	0.7 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.33 U	0.33 U
Aroclor-1260	mg/kg	0.18 U	5.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.33 U	0.33 U
Total PCBs	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics															
Aluminum	mg/kg	1,280 J	5,510 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	mg/kg	1.76 J	1.30 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	mg/kg	6.90 J	8.98 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	mg/kg	50.3 J	64.9 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	mg/kg	0.857 J	0.524 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	mg/kg	0.0932 J	0.930 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	mg/kg	2,540 J	27,400 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	mg/kg	66.3 J	141 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium VI (Hexavalent)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	mg/kg	9.53	17.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	mg/kg	55.6 J	64.3 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	mg/kg	0.480	0.310	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	mg/kg	79,100 J	28,000 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	mg/kg	6.91 J	72.2 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Coarse Fraction	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Fine Fraction	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Total (Calculated by fine/coarse fraction)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	mg/kg	R	4,010 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	mg/kg	551	2,060	1,560	449	3,650	2,310	2,360 [1,530]	2,380	329	632	5,470	25.0	NA	NA
Mercury	mg/kg	0.0535 U	0.0709	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	mg/kg	49.1 J	152 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	mg/kg	535 U	706	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	mg/kg	3.34	1.05 U*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	mg/kg	3.34 UJ*	1.05 UJ*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	mg/kg	1,550	524 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/kg	0.268 U	0.262 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	mg/kg	11.2 J	23.9 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	mg/kg	42.1	566	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE 2-16
FORMER RAILYARD
INORGANIC COMPOUNDS SOIL ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		BH11	BH11	BH12	BH12	NS-RS-4	RS-1	RS-2	RS-2-1	RS-2-2	RS-2-3	RS-2-4	RS-2-5	RS-2-6	RS-2-7	RS-2-8	RS-2A
Sample Depth (ft bgs):		0 - 2	2 - 4	0 - 2	2 - 4	2.5 - 3	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1
Date Collected:	Units	03/06/07	03/06/07	03/06/07	03/06/07	06/13/95	06/13/95	06/13/95	06/10/96	06/10/96	06/10/96	06/10/96	06/10/96	06/10/96	06/10/96	06/10/96	08/26/05
Inorganics																	
Aluminum	mg/kg	NA	NA	NA	NA	NA	3,870	6,630	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	mg/kg	0.290 J	0.190 UJ	0.190 J [0.840 J]	0.130 J	1.27 UJ*	1.12 J	5.89 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	mg/kg	3.70	5.00	4.40 [5.10]	2.20	7.04 J	3.04	11.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	mg/kg	69.2	68.4	158 [95.7]	135	62.2 J	44.4	247	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	mg/kg	0.180 U	0.240	0.180 U [0.180 U]	0.180 U	0.633 U	0.526 U	0.543	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	mg/kg	1.30	0.190	3.30 J [1.60 J]	0.320	0.158 J	0.747	6.38	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	mg/kg	NA	NA	NA	NA	NA	7,750 J	31,300 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	mg/kg	95.8	21.6	918 [572]	137	22.2 J	60.3	1,110	NA	NA	NA	NA	NA	NA	NA	NA	90.2 [141]
Chromium VI (Hexavalent)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.830 U [0.830 U]
Cobalt	mg/kg	11.5	8.40	111 [38.7]	1.90	6.33 U	8.52	143	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	mg/kg	117	13.6	387 J [120 J]	10.9	12.1 J	53.4	274	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	mg/kg	NA	NA	NA	NA	0.320 U	0.260 U	0.270 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	mg/kg	NA	NA	NA	NA	NA	45,400	12,000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	mg/kg	93.2	11.0	189 [77.7]	8.80	6.29 J	97.9 J	530 J	279 J	237 J	335 J	456 J	769 J	214 J [1,370 J]	159 J	209 J	NA
Lead - Coarse Fraction	mg/kg	143	NA	229 J [48.2 J]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Fine Fraction	mg/kg	364	NA	731 J [78.0 J]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Total (Calculated by fine/coarse fraction)	mg/kg	217	NA	400 J [56.8 J]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	mg/kg	NA	NA	NA	NA	NA	1,340	6,580	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	mg/kg	2,540	191	7,380 [6,770]	7,470	NA	955 J	3,320 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	mg/kg	0.100	0.0270 J	0.970 J [0.220 J]	0.0440 U	0.0633 U	0.109	0.546	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	mg/kg	64.9	23.0	787 [384]	5.10	17.5 J	47.5	1,010	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	mg/kg	NA	NA	NA	NA	NA	526 U	944	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	mg/kg	0.210	0.190 U	0.180 U [0.180 U]	0.180 U	1.27 U*	1.60 J	4.31 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	mg/kg	0.210	0.100	0.220 J [1.20 J]	0.0810 J	1.27 UJ*	0.526 UJ*	1.36 UJ*	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	mg/kg	NA	NA	NA	NA	NA	526 U	543 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/kg	0.0530 J	0.130	0.0200 J [0.0270 J]	0.0120 J	0.317 U	0.263 U	0.272 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin	mg/kg	NA	NA	NA	NA	127 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	mg/kg	11.5	26.5	33.9 [26.0]	22.0	26.9 J	10.4	32.1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	mg/kg	473	48.0	355 [421]	20.2	37.0	256	2,630	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE 2-16
FORMER RAILYARD
INORGANIC COMPOUNDS SOIL ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID: / Sample Depth (ft bgs): / Date Collected:	Units	RS-3 0 - 1 06/13/95	RS-3A 0 - 1 08/26/05	RS-4 0 - 1 06/13/95	RS-5 0 - 1 06/13/95	RS-5-1 0 - 1 06/10/96	RS-5-2 0 - 1 06/10/96	RS-5-3 0 - 1 06/10/96	RS-5-4 0 - 1 06/10/96	RS-5-5 0 - 1 06/10/96	RS-5-6 0 - 1 06/10/96	RS-5-7 0 - 1 06/10/96	RS-5-8 0 - 1 06/10/96	RS-6 0 - 1 06/13/95	RS-7 0 - 1 06/13/95	RS-8 0 - 1 06/13/95	RS-09 0 - 1 08/19/05	RS-10 0 - 1 08/19/05	RS-11 0 - 1 08/19/05
Inorganics																			
Aluminum	mg/kg	8,000	NA	3,710 J [2,920 J]	3,590 J	NA	NA	NA	NA	NA	NA	NA	NA	7,160 J	1,280 J	5,510 J	NA	NA	NA
Antimony	mg/kg	1.34 UJ*	NA	1.06 UJ* [1.06 UJ*]	1.25 J	NA	NA	NA	NA	NA	NA	NA	NA	2.11 J	1.76 J	1.30 J	NA	NA	NA
Arsenic	mg/kg	6.93	NA	6.00 J [7.02 J]	31.1 J	NA	NA	NA	NA	NA	NA	NA	NA	6.48 J	6.90 J	8.98 J	NA	NA	NA
Barium	mg/kg	117	NA	76.8 J [82.1 J]	81.8 J	NA	NA	NA	NA	NA	NA	NA	NA	85.7 J	50.3 J	64.9 J	NA	NA	NA
Beryllium	mg/kg	0.591	NA	0.636 J [0.740 J]	0.748 J	NA	NA	NA	NA	NA	NA	NA	NA	0.524 UJ	0.857 J	0.524 UJ	NA	NA	NA
Cadmium	mg/kg	2.46	NA	0.775 J [0.812 J]	0.812 J	NA	NA	NA	NA	NA	NA	NA	NA	1.19 J	0.0932 J	0.930 J	NA	NA	NA
Calcium	mg/kg	34,600 J	NA	56,900 J [24,600 J]	45,700 J	NA	NA	NA	NA	NA	NA	NA	NA	30,400 J	2,540 J	27,400 J	NA	NA	NA
Chromium Total	mg/kg	273	180	62.8 J [62.3 J]	99.7 J	NA	NA	NA	NA	NA	NA	NA	NA	205 J	66.3 J	141 J	NA	NA	NA
Chromium VI (Hexavalent)	mg/kg	NA	0.830 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	mg/kg	44.6	NA	15.6 [15.8]	21.7	NA	NA	NA	NA	NA	NA	NA	NA	36.5	9.53	17.0	NA	NA	NA
Copper	mg/kg	114	NA	27.3 J [31.4 J]	41.0 J	NA	NA	NA	NA	NA	NA	NA	NA	75.6 J	55.6 J	64.3 J	NA	NA	NA
Cyanide (total)	mg/kg	0.270 U	NA	0.260 U [0.260 U]	0.320	NA	NA	NA	NA	NA	NA	NA	NA	0.270	0.480	0.310	NA	NA	NA
Iron	mg/kg	43,000	NA	14,400 J [22,400 J]	18,400 J	NA	NA	NA	NA	NA	NA	NA	NA	50,100 J	79,100 J	28,000 J	NA	NA	NA
Lead	mg/kg	161 J	NA	30.1 J [29.8 J]	44.7 J	NA	NA	NA	NA	NA	NA	NA	NA	98.1 J	6.91 J	72.2 J	NA	NA	NA
Lead - Coarse Fraction	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Fine Fraction	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Total (Calculated by fine/coarse fraction)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	mg/kg	4,180	NA	5,340 J [3,390 J]	4,740 J	NA	NA	NA	NA	NA	NA	NA	NA	6,340 J	R	4,010 J	NA	NA	NA
Manganese	mg/kg	5,030 J	NA	300 [463]	446	NA	NA	NA	NA	NA	NA	NA	NA	2,020	551	2,060	1,560	449	3,650
Mercury	mg/kg	0.367	NA	0.0530 U [0.102]	0.111	NA	NA	NA	NA	NA	NA	NA	NA	0.143	0.0535 U	0.0709	NA	NA	NA
Nickel	mg/kg	271	NA	71.8 J [71.1 J]	106 J	NA	NA	NA	NA	NA	NA	NA	NA	198 J	49.1 J	152 J	NA	NA	NA
Potassium	mg/kg	1,150	NA	748 [528 U]	651	NA	NA	NA	NA	NA	NA	NA	NA	1,210	535 U	706	NA	NA	NA
Selenium	mg/kg	1.34 UJ*	NA	2.00 [2.35]	1.95	NA	NA	NA	NA	NA	NA	NA	NA	1.05 U*	3.34	1.05 U*	NA	NA	NA
Silver	mg/kg	1.34 UJ*	NA	1.06 UJ* [1.06 UJ*]	1.07 UJ*	NA	NA	NA	NA	NA	NA	NA	NA	1.05 UJ*	3.34 UJ*	1.05 UJ*	NA	NA	NA
Sodium	mg/kg	537 U	NA	530 U [528 U]	534 U	NA	NA	NA	NA	NA	NA	NA	NA	524 U	1,550	524 U	NA	NA	NA
Thallium	mg/kg	0.268 U	NA	0.265 U [0.264 U]	0.876	NA	NA	NA	NA	NA	NA	NA	NA	0.262 UJ	0.268 U	0.262 U	NA	NA	NA
Tin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	mg/kg	24.5	NA	16.7 J [17.8 J]	17.2 J	NA	NA	NA	NA	NA	NA	NA	NA	22.5 J	11.2 J	23.9 J	NA	NA	NA
Zinc	mg/kg	448	NA	111 [119]	143	NA	NA	NA	NA	NA	NA	NA	NA	306	42.1	566	NA	NA	NA

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TABLE 2-16
FORMER RAILYARD
INORGANIC COMPOUNDS SOIL ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID: / Sample Depth (ft bgs): / Date Collected:	Units	RS-12 0 - 1 08/19/05	RS-13 0 - 1 08/19/05	RS-14 0 - 1 08/19/05	RS-15 0 - 1 08/19/05	RS-16 0 - 1 08/19/05	RS-17 0 - 1 08/19/05	RS-18 0 - 1 08/19/05	RY-B1 1 07/14/98	RY-B2 1 07/14/98
Inorganics										
Aluminum	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium VI (Hexavalent)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Coarse Fraction	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Fine Fraction	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Total (Calculated by fine/coarse fraction)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	mg/kg	2,310	2,360 [1,530]	2,380	329	632	5,470	25.0	NA	NA
Mercury	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE 2-17
SAGINAW RIVER BERM AREA
PCB AND INORGANIC COMOUNDS SOIL ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	SB-374 9.5 - 10.5 07/24/00	SB-375 6.5 - 7.5 07/24/00	SB-376 7 - 8 07/25/00	SB-377 0 - 0.5 07/25/00	SB-377 0.5 - 1 07/25/00	Excavated SB-378 0 - 0.5 07/25/00	Excavated SB-378 0.5 - 1 07/25/00	Excavated SB-379 0 - 0.5 07/25/00	Excavated SB-379 0.5 - 1 07/25/00	Excavated SB-380 0 - 0.5 07/25/00	Excavated SB-380 0.5 - 1 07/25/00	SB-381 0 - 0.5 07/25/00	SB-381 0.5 - 1 07/25/00	SB-382 0 - 0.5 07/25/00	SB-382 0.5 - 1 07/25/00	SB-383 0 - 0.5 07/25/00	SB-383 0.5 - 1 07/25/00
PCBs																		
PCB-1016	mg/kg	0.045 U	0.046 U [0.045 U]	0.045 U	0.35 U	0.17 U [0.18 U]	0.036 U	0.036 U	0.19 U	0.033 U	0.18 U	0.034 U	0.18 U	0.034 U	0.34 U	0.36 U	0.034 U	0.034 U
PCB-1221	mg/kg	0.045 U	0.046 U [0.045 U]	0.045 U	0.35 U	0.17 U [0.18 U]	0.036 U	0.036 U	0.19 U	0.033 U	0.18 U	0.034 U	0.18 U	0.034 U	0.34 U	0.36 U	0.034 U	0.034 U
PCB-1232	mg/kg	0.045 U	0.046 U [0.045 U]	0.045 U	0.35 U	0.17 U [0.18 U]	0.036 U	0.036 U	0.19 U	0.033 U	0.18 U	0.034 U	0.18 U	0.034 U	0.34 U	0.36 U	0.034 U	0.034 U
PCB-1242	mg/kg	0.045 U	0.046 U [0.045 U]	0.045 U	0.35 U	0.17 U [0.18 U]	0.036 U	0.036 U	0.19 U	0.033 U	0.18 U	0.034 U	0.18 U	0.034 U	0.34 U	0.36 U	0.034 U	0.034 U
PCB-1248	mg/kg	0.045 U	0.046 U [0.045 U]	0.056 J	0.35 U	0.17 U [0.18 U]	0.036 U	0.13	0.19 U	0.32	0.97	0.18	0.78	0.22	3.3	3.5	0.034 U	0.034 U
PCB-1254	mg/kg	0.045 U	0.046 U [0.045 U]	0.045 U	0.35 U	0.38 [0.18 U]	0.036 U	0.036 U	0.39	0.033 U	0.18 U	0.034 U	0.18 U	0.034 U	0.34 U	0.36 U	0.19	0.025 J
PCB-1260	mg/kg	0.045 U	0.046 U [0.045 U]	0.045 U	1.2	0.19 [1.1]	0.13	0.036 U	0.19 U	0.033 U	0.18 U	0.034 U	0.18 U	0.034 U	0.34 U	0.36 U	0.034 U	0.034 U
Total Aroclors	mg/kg	ND	ND [ND]	0.056	1.2	0.57 [1.1]	0.13	0.13	0.39	0.32	0.97	0.18	0.78	0.22	3.3	3.5	0.19	0.025
Inorganics																		
Aluminum	mg/kg	7,080	5,090 [4,160]	5,500	13,700	4,060 [11,400]	6,300	22,500	9,030	4,390	12,100	25,200	14,700	27,900	9,170	10,500	3,350	3,730
Antimony	mg/kg	8.2 UJ	8.3 UJ [8.1 UJ]	8.2 UJ	6.4 UJ	6.3 UJ [6.5 UJ]	6.6 UJ	1.8 BJ	6.8 UJ	6.1 UJ	6.6 UJ	1.7 BJ	0.65 BJ	1.8 BJ	6.2 UJ	0.92 BJ	6.3 UJ	6.1 UJ
Arsenic	mg/kg	3.2 J	3.9 [3.8 J]	3.2	4.9 J	3.4 J [4.4]	2.3 J	1.9 J	3.6 J	1.4 J	4.6 J	1.9 J	4.7 J	2.4 J	5.9 J	6.1 J	1.7 J	1.3 J
Barium	mg/kg	56.6	34.1 [31.9]	44.8	81.1	21.2 [83]	39.1	138	55.1	27.1	71.1	136	81.7	199	70.2	83	14.7 B	9.6 B
Beryllium	mg/kg	0.69 U	0.69 U [0.68 U]	0.68 U	0.53 U	0.52 U [0.54 U]	0.55 U	0.54 U	0.56 U	0.51 U	0.55 U	0.52 U	0.55 U	0.51 U	0.52 U	0.55 U	0.52 U	0.51 U
Cadmium	mg/kg	0.63 B	0.69 U [0.38 B]	0.68 U	0.64	1 [0.07 B]	0.4 B	1.2	0.57	0.31 B	0.66	1.3	0.71	1.2	0.87	1.2	0.29 B	0.14 B
Calcium	mg/kg	36,000	37,400 [33,500]	31,600	16,500	17,100 [16,200]	14,300	101,000	17,300	14,300	16,400	100,000	24,100	163,000	26,900	33,400	10,500	2,490
Chromium (Total)	mg/kg	14.9	10.4 J [9.7]	11.5 J	24.6	31.9 [39.1 J]	31.5	245	36.7	31.5	42.3	184	58.9	324	42.7	65	8.4	3.9
Cobalt	mg/kg	5.5 B	4.5 B [3.9 B]	4 B	7.1	3 B [6.3]	2.8 B	3.2 B	4.7 B	1.3 B	5.5	3.3 B	5.6	2.8 B	4.9 B	5.1 B	1.3 B	1.1 B
Copper	mg/kg	10.4	7.1 [6.2]	7.6	32.6	27.6 [17.9]	10.4	11.2	16	5.6	18.4	30	18.7	13.4	20	32.1	8.8	3 U
Cyanide, Total	mg/kg	0.69 U	0.69 U [0.68 U]	0.68 U	0.53 U	0.52 U [0.54 U]	0.55 U	0.54 U	0.56 U	0.51 U	0.55 U	0.52 U	0.55 U	0.51 U	0.52 U	0.55 U	0.52 U	0.51 U
Iron	mg/kg	16,500	10,000 [10,200]	9,280	18,800	38,400 [18,200]	13,800	37,200	17,500	9,800	19,500	40,200	19,400	32,800	20,300	26,500	7,030	4,710
Lead	mg/kg	5.6	3.9 U [3.4]	4.3	11.7	2.6 [11.8]	5.9	4.9	9.6	3.5	16.5	24.4	13.8	44	37.7	46.9	15.2	2.6
Magnesium	mg/kg	17,300	12,900 [11,800]	13,700	7,380	1,190 [5,330]	2,220	1,780	3,650	588	4,580	1,790	5,300	1,990	5,780	5,330	1,130	847
Manganese	mg/kg	450	476 J [360]	266 J	527	3,510 [1,690 J]	1,330	23,100	1,350	2,250	1,950	24,500	3,040	32,600	2,190	3,450	225	156
Mercury	mg/kg	0.23 J	0.14 U [0.034 BJ]	0.14 U	0.028 BJ	0.1 UJ [0.11 U]	0.033 BJ	0.11 UJ	0.054 BJ	0.1 UJ	0.056 BJ	0.026 BJ	0.039 BJ	0.011 BJ	0.058 BJ	0.08 BJ	0.023 BJ	0.011 BJ
Nickel	mg/kg	13.2	9.1 [8.4]	9	22.2	25.4 [17.9]	9.8	4.3	15.6	3.5 B	18.9	6.9 U	18.3	4.1 U	16.8	21	5.1 U	4.1 U
Potassium	mg/kg	1,100	907 [631 B]	942	2,210	381 B [1,450]	905	2,440	1,180	374 B	1,770	2,850	2,310	2,760	1,490	1,400	368 B	356 B
Selenium	mg/kg	0.76	0.53 B [0.6 B]	1.2	1.3	2.9 [0.68]	0.84	1 BG	1.2	0.56	1.2	1.3 BG	1.6	2.1 BG	1.5	2	0.35 B	0.51 U
Silver	mg/kg	1.4 U	1 U [1.4 U]	1.4 U	1.1 U	0.22 B [1.1 U]	1.1 U	0.54 BG	1.1 U	0.18 B	1.1 U	0.4 B	1.1 U	1.3 B	1 U	0.33 B	1 U	1 U
Sodium	mg/kg	687 U	692 U [678 U]	681 U	532 U	521 U [539 U]	548 U	1,640	563 U	507 U	553 U	2,380	550 U	547 U	516 U	552 U	521 U	510 U
Thallium	mg/kg	1.4 U	1.4 U [0.7 B]	1.4 U	1.1 U	1 U [1.1 U]	1.1 U	3.3 BG	1.1 U	1 U	1.1 U	10.4 U	1.1 U	10.2 U	1 U	1.1 U	1 U	1 U
Vanadium	mg/kg	17.2	13.3 [11.4]	14.2	29	9.7 [25.6]	13.7	41.4	19.9	8.9	23.2	25.6	28.6	37	20.1	21.1	4.8 B	4.4 B
Zinc	mg/kg	35.9 J	31.5 J [23.7 J]	31.7 J	39.3 J	9.2 U [39.8 J]	28.2 J	8.2 U	40.6 J	6.8 U	43.9 J	18.5 J	42.3 J	14.5 U	73.1 J	78.2 J	27.9 J	7.5 U

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TABLE 2-17
SAGINAW RIVER BERM AREA
PCB AND INORGANIC COMOUNDS SOIL ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	SB-384 0 - 0.5 07/25/00	SB-384 0.5 - 1 07/25/00	SB-385 0 - 0.5 07/25/00	SB-385 0.5 - 1 07/25/00	SB-386 0 - 0.5 07/25/00	SB-386 0.5 - 1 07/25/00	SB-387 0 - 0.5 07/25/00	SB-387 0.5 - 1 07/25/00	SB-388 0 - 0.5 07/25/00	SB-388 0.5 - 1 07/25/00	SB-380 North West Wall of Excavation 0 - 1 9/13/2005	SB-378 South Wall of Excavation 0 - 1 9/13/2004	SB-381 Expanded Floor of Excavation 2 9/13/2005	SB-381 Extended Excavation Northeast Wall 0-1 9/13/2004	SB-381 North West Wall of Excavation 0 - 1 9/13/2005	SB-381 West Well of Excavation 0 - 1 8/30/2005
PCBs																	
PCB-1016	mg/kg	0.035 U	0.035 U	0.035 U	0.035 U	0.034 U	0.034 U	0.034 U	0.036 U	0.034 U	0.036 U	NA	NA	NA	NA	NA	NA
PCB-1221	mg/kg	0.035 U	0.035 U	0.035 U	0.035 U	0.034 U	0.034 U	0.034 U	0.036 U	0.034 U	0.036 U	NA	NA	NA	NA	NA	NA
PCB-1232	mg/kg	0.035 U	0.035 U	0.035 U	0.035 U	0.034 U	0.034 U	0.034 U	0.036 U	0.034 U	0.036 U	NA	NA	NA	NA	NA	NA
PCB-1242	mg/kg	0.035 U	0.035 U	0.035 U	0.035 U	0.034 U	0.034 U	0.034 U	0.036 U	0.034 U	0.036 U	NA	NA	NA	NA	NA	NA
PCB-1248	mg/kg	0.035 U	0.035 U	0.035 U	0.035 U	0.034 U	0.034 U	0.034 U	0.036 U	0.034 U	0.036 U	NA	NA	NA	NA	NA	NA
PCB-1254	mg/kg	0.37	0.57	0.059	0.035 U	0.046	0.043	0.23	0.11	0.096	0.045	NA	NA	NA	NA	NA	NA
PCB-1260	mg/kg	0.035 U	0.035 U	0.07	0.038	0.06	0.036	0.28	0.097	0.071	0.036 U	NA	NA	NA	NA	NA	NA
Total Aroclors	mg/kg	0.37	0.57	0.129	0.038	0.106	0.079	0.51	0.207	0.167	0.045	NA	NA	NA	NA	NA	NA
Inorganics																	
Aluminum	mg/kg	8,770	6,030	4,740	4,040	3,710	3,490	4,430	3,530	7,610	3,670	NA	NA	NA	NA	NA	NA
Antimony	mg/kg	6.4 UJ	6.3 UJ	6.3 UJ	6.4 UJ	6.2 UJ	6.2 UJ	6.2 UJ	6.6 UJ	6.3 UJ	6.6 UJ	NA	NA	NA	NA	NA	NA
Arsenic	mg/kg	4.5 J	3.2 J	4.2 J	2.5	3.2	2.5	3.8	2.3	6.1	5.7	NA	NA	NA	NA	NA	NA
Barium	mg/kg	50.7	39.6	38.3	52.3	37.2	22.1	39.9	25.7	76.3	37.9	NA	NA	NA	NA	NA	NA
Beryllium	mg/kg	0.53 U	0.52 U	0.53 U	0.54 U	0.06 B	0.52 U	0.52 U	0.55 U	0.52 U	0.55 U	NA	NA	NA	NA	NA	NA
Cadmium	mg/kg	0.55	0.63	0.53	0.58	0.52 U	0.52 U	0.34 B	0.55 U	0.21 B	0.12 B	NA	NA	NA	NA	NA	NA
Calcium	mg/kg	13,000	108,000	15,900	55,300	13,000	16,600	13,300	10,500	30,400	33,100	NA	NA	NA	NA	NA	NA
Chromium (Total)	mg/kg	24.7	42.6	15.4	12.2 J	25.1 J	7.7 J	21.6 J	43.9 J	65.7 J	22.7 J	NA	NA	NA	NA	NA	NA
Cobalt	mg/kg	4 B	2.4 B	3.2 B	2.2 B	2.2 B	2.2 B	3.1 B	1.7 B	3.8 B	2.9 B	NA	NA	NA	NA	NA	NA
Copper	mg/kg	15.4	16	18	10.6	13.5	5.6	28.7	16.7	28.2	15.3	NA	NA	NA	NA	NA	NA
Cyanide, Total	mg/kg	0.53 U	0.52 U	0.53 U	0.54 U	0.52 U	0.52 U	0.52 U	0.55 U	0.52 U	0.55 U	NA	NA	NA	NA	NA	NA
Iron	mg/kg	13,900	15,300	10,900	6,980	10,500	5,930	15,000	12,400	20,900	9,800	NA	NA	NA	NA	NA	NA
Lead	mg/kg	15.5	14.5	26.3	120	45.1	8.5	61.5	9	27.4	11.3	NA	NA	NA	NA	NA	NA
Magnesium	mg/kg	4,320	3,680	4,900	10,900	2,270	4,420	3,530	1,040	5,800	8,370	NA	NA	NA	NA	NA	NA
Manganese	mg/kg	738	2,070	276	384 J	1,180 J	173 J	686 J	2,200 J	2,940 J	909 J	848	1830	6200	1,130	684	2360
Mercury	mg/kg	0.051 BJ	0.036 BJ	0.064 BJ	0.11 U	0.16	0.1 U	0.1 U	0.11 U	0.1 U	0.11 U	NA	NA	NA	NA	NA	NA
Nickel	mg/kg	13.7	16.4	11.1 U	7.4	7.7	6.5	13	14.1	14	8.4	NA	NA	NA	NA	NA	NA
Potassium	mg/kg	1,550	742	912	646	515 B	633	686	392 B	1,120	515 B	NA	NA	NA	NA	NA	NA
Selenium	mg/kg	0.98	0.88	0.68	0.61	0.33 B	0.36 B	0.51 B	0.49 B	0.97	0.55 U	NA	NA	NA	NA	NA	NA
Silver	mg/kg	1.1 U	0.18 B	1.1 U	1.1 U	1 U	1 U	1 U	1.1 U	0.19 B	1.1 U	NA	NA	NA	NA	NA	NA
Sodium	mg/kg	532 U	524 U	525 U	536 U	516 U	516 U	516 U	550 U	521 U	550 U	NA	NA	NA	NA	NA	NA
Thallium	mg/kg	1.1 U	1 U	1.1 U	0.59 B	1 U	1 U	1 U	1.1 U	0.55 B	1.1 U	NA	NA	NA	NA	NA	NA
Vanadium	mg/kg	17.8	12.8	11.5	9.3	9.5	9	10.5	9.4	17.2	9	NA	NA	NA	NA	NA	NA
Zinc	mg/kg	46.8 J	26.4 J	56 J	50.1 J	57.9 J	16.2 J	101 J	12	54.1 J	37.5 J	NA	NA	NA	NA	NA	NA

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TABLE 2-17
SAGINAW RIVER BERM AREA
PCB AND INORGANIC COMOUNDS SOIL ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	SB-380 North Floor of Excavation 2-3 9/22/2005	SB-380 North East Wall of Excavation 0 - 1 8/30/2005	SB-380 South Wall of Excavation 0 - 1 9/13/2005	SB-378 North Floor of Excavation 2-3 9/22/2005	SB-378 Expanded Floor of Excavation 2-3 9/22/2005	SB-378 Expanded South Floor of Excavation 2-3 9/22/2005	SB-378 West Wall of Excavation 0 - 1 8/30/2005	SB-378 Northeast Wall of Excavation 0 - 1 9/13/2004	SB-378 Southwest Wall of Excavation 0 - 1 8/30/2005	SB-380 North Floor of Excavation 2-3 9/22/2005
PCBs											
PCB-1016	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1221	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1232	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1242	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1248	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1254	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1260	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Aroclors	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics											
Aluminum	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium (Total)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide, Total	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	mg/kg	16900 [17200]	688	2170	26600	21500	13600	299	2350	342	13200
Mercury	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE 2-18
DRUM REMEDIATION AREA AND FORMER HILLOCK AREA
ORGANIC COMPOUNDS GROUNDWATER ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Date Collected:	Units	TW-241WT 08/08/98	TW-242WT 08/08/98	TWW-1 01/25/97	TWW-1 08/08/98	TWW-1 05/18/99	TWW-1 05/21/00	MW-126WT 06/06/96
Volatiles								
1,1,1-Trichloroethane	ug/L	1 U	1 U	330 U	200 U	250 UD [250 UD]	250 U	8.3 U
1,1,2,2-Tetrachloroethane	ug/L	1 U	1 U	330 U	200 U	250 UD [250 UD]	250 UJ	8.3 U
1,1,2-Trichloroethane	ug/L	1 U	1 U	330 U	200 U	250 UD [250 UD]	250 U	8.3 U
1,1-Dichloroethane	ug/L	1 U	1 U	330 U	200 U	250 UD [250 UD]	250 U	180
1,1-Dichloroethene	ug/L	1 U	1 U	330 U	200 U	250 UD [250 UD]	51 J	8.3 U
1,2-Dichloroethane	ug/L	1 U	1 U	330 U	200 U	250 UD [250 UD]	250 U	8.3 U
1,2-Dichloroethene, Total	ug/L	1 U	1.5	NA	8,000	11,000 D [10,000 D]	8,800	220
1,2-Dichloropropane	ug/L	1 U	1 U	330 U	200 U	250 UD [250 UD]	250 U	8.3 U
2-Butanone	ug/L	50 U	50 U	17,000 U	2,000 U	1,300 UD [1,300 UD]	2,500 U	420 U
2-Hexanone	ug/L	50 U	50 U	17,000 U	2,000 U	1,300 UD [1,300 UD]	2,500 U	420 U
4-Methyl-2-pentanone	ug/L	50 U	50 U	17,000 U	2,000 U	1,300 UD [1,300 UD]	2,500 U	420 U
Acetone	ug/L	100 U	100 U	33,000 U	2,000 U	1,300 UJD [1,300 UJD]	2,500 U	830 U
Benzene	ug/L	5 U	5 U	1,700 U	1,000 U	250 UD [250 UD]	250 U	42 U
Bromodichloromethane	ug/L	1 U	1 U	330 U	200 U	250 UD [250 UD]	250 U	8.3 U
Bromoform	ug/L	1 U	1 U	330 U	200 U	250 UD [250 UD]	250 U	8.3 U
Bromomethane	ug/L	1 U	1 U	330 U	200 U	250 UJD [250 UD]	250 U	8.3 U
Carbon disulfide	ug/L	50 U	50 U	17,000 U	1,000 U	250 UD [250 UD]	250 U	420 U
Carbon tetrachloride	ug/L	1 U	1 U	330 U	200 U	250 UD [250 UD]	250 U	8.3 U
Chlorobenzene	ug/L	1 U	1 U	330 U	200 U	250 UD [250 UD]	250 U	8.3 U
Chlorodibromomethane	ug/L	1 U	1 U	330 U	200 U	250 UD [250 UD]	250 U	8.3 U
Chloroethane	ug/L	1 U	1 U	330 U	200 U	250 UJD [250 UD]	250 U	40
Chloroform	ug/L	1 U	1 U	330 U	200 U	250 UD [250 UD]	250 U	8.3 U
Chloromethane	ug/L	1 U	1 U	330 U	200 U	250 UJD [250 UD]	250 U	8.3 U
cis-1,2-Dichloroethene	ug/L	NA	NA	9,600	NA	NA	8,800	220
cis-1,3-Dichloropropene	ug/L	1 U	1 U	330 U	200 U	250 UD [250 UD]	250 U	8.3 U
Ethylbenzene	ug/L	1 U	1 U	330 U	200 U	250 UD [250 UD]	250 U	8.3 U
m,p-Xylene	ug/L	NA	NA	NA	NA	500 UD [500 UD]	NA	NA
Methylene chloride	ug/L	5 U	5 U	1,700 U	1,000 U	1,250 UJD [1,300 UJD]	250 U	42 U
o-Xylene	ug/L	NA	NA	NA	NA	250 UD [250 UD]	NA	NA
Styrene	ug/L	1 U	1 U	330 U	200 U	250 UD [250 UD]	250 U	8.3 U
Tetrachloroethene	ug/L	1 U	1 U	330 U	200 U	250 UD [250 UD]	250 U	8.3 U
Toluene	ug/L	1 U	1 U	330 U	200 U	250 UD [250 UD]	250 U	8.3 U
trans-1,2-Dichloroethene	ug/L	NA	NA	330 U	NA	NA	40 J	8.3 U
trans-1,3-Dichloropropene	ug/L	1 U	1 U	330 U	200 U	250 UD [250 UD]	250 U	8.3 U
Trichloroethene	ug/L	1 U	1 U	630	200 U	250 UD [250 UD]	250 U	17
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA
Vinyl acetate	ug/L	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	ug/L	1 U	1 U	2,000	1,700	330 D [390 D]	2,300	270
Xylenes, Total	ug/L	3 U	3 U	1,000 U	600 U	NA	250 U	25 U
Semivolatiles								
1,2,4-Trichlorobenzene	ug/L	NA	NA	5 U	NA	NA	NA	5 U
1,2-Dichlorobenzene	ug/L	1 U	1 U	5 U	200 U	NA	NA	5 U
1,3-Dichlorobenzene	ug/L	1 U	1 U	5 U	200 U	NA	NA	5 U
1,4-Dichlorobenzene	ug/L	1 U	1 U	5 U	200 U	NA	NA	5 U
2,2'-oxybis(dichloropropane)	ug/L	NA	NA	5 U	NA	NA	NA	5 U
2,4,5-Trichlorophenol	ug/L	NA	NA	50 U	NA	NA	NA	50 U
2,4,6-Trichlorophenol	ug/L	NA	NA	5 U	NA	NA	NA	5 U
2,4-Dichlorophenol	ug/L	NA	NA	5 U	NA	NA	NA	5 U
2,4-Dimethylphenol	ug/L	NA	NA	5 U	NA	NA	NA	5 U
2,4-Dinitrophenol	ug/L	NA	NA	20 U	NA	NA	NA	20 UJ
2,4-Dinitrotoluene	ug/L	NA	NA	5 U	NA	NA	NA	5 U
2,6-Dinitrotoluene	ug/L	NA	NA	5 U	NA	NA	NA	5 U
2-Chloronaphthalene	ug/L	NA	NA	5 U	NA	NA	NA	5 U
2-Chlorophenol	ug/L	NA	NA	5 U	NA	NA	NA	5 U
2-Methylnaphthalene	ug/L	NA	NA	5 U	NA	NA	NA	5 U
2-Methylphenol	ug/L	NA	NA	5 U	NA	NA	NA	5 U
2-Nitroaniline	ug/L	NA	NA	20 U	NA	NA	NA	20 U
2-Nitrophenol	ug/L	NA	NA	5 U	NA	NA	NA	5 U
3,3'-Dichlorobenzidine	ug/L	NA	NA	20 U	NA	NA	NA	20 U
3-Nitroaniline	ug/L	NA	NA	20 U	NA	NA	NA	20 U
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	20 U	NA	NA	NA	20 U
4-Bromophenyl phenyl ether	ug/L	NA	NA	5 U	NA	NA	NA	5 U
4-Chloro-3-methylphenol	ug/L	NA	NA	5 U	NA	NA	NA	5 U
4-Chloroaniline	ug/L	NA	NA	20 U	NA	NA	NA	20 U
4-Chlorophenyl phenyl ether	ug/L	NA	NA	5 U	NA	NA	NA	5 U
4-Methylphenol	ug/L	NA	NA	5 U	NA	NA	NA	5 U
4-Nitroaniline	ug/L	NA	NA	20 U	NA	NA	NA	20 U
4-Nitrophenol	ug/L	NA	NA	20 U	NA	NA	NA	20 U
Acenaphthene	ug/L	NA	NA	5 U	NA	NA	NA	5 U
Acenaphthylene	ug/L	NA	NA	5 U	NA	NA	NA	5 U

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TABLE 2-18
DRUM REMEDIATION AREA AND FORMER HILLOCK AREA
ORGANIC COMPOUNDS GROUNDWATER ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Date Collected:	Units	TW-241WT 08/08/98	TW-242WT 08/08/98	TWW-1 01/25/97	TWW-1 08/08/98	TWW-1 05/18/99	TWW-1 05/21/00	MW-126WT 06/06/96
Semivolatiles (Cont'd.)								
Anthracene	ug/L	NA	NA	5 U	NA	NA	NA	5 U
Benzo(a)anthracene	ug/L	NA	NA	5 U	NA	NA	NA	5 U
Benzo(a)pyrene	ug/L	NA	NA	5 U	NA	NA	NA	5 U
Benzo(b)fluoranthene	ug/L	NA	NA	5 U	NA	NA	NA	5 U
Benzo(g,h,i)perylene	ug/L	NA	NA	5 U	NA	NA	NA	5 U
Benzo(k)fluoranthene	ug/L	NA	NA	5 U	NA	NA	NA	5 U
bis(2-Chloroethoxy)methane	ug/L	NA	NA	5 U	NA	NA	NA	5 U
bis(2-Chloroethyl)ether	ug/L	NA	NA	5 U	NA	NA	NA	5 U
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	5 U	NA	NA	NA	7.2 J
Butyl benzyl phthalate	ug/L	NA	NA	5 U	NA	NA	NA	5 U
Carbazole	ug/L	NA	NA	10 U	NA	NA	NA	10 U
Chrysene	ug/L	NA	NA	5 U	NA	NA	NA	5 U
Dibenz(a,h)anthracene	ug/L	NA	NA	5 U	NA	NA	NA	5 U
Dibenzofuran	ug/L	NA	NA	5 U	NA	NA	NA	5 U
Diethyl phthalate	ug/L	NA	NA	5 U	NA	NA	NA	5 U
Dimethyl phthalate	ug/L	NA	NA	5 U	NA	NA	NA	5 U
Di-n-butyl phthalate	ug/L	NA	NA	5 U	NA	NA	NA	5 U
Di-n-octyl phthalate	ug/L	NA	NA	5 U	NA	NA	NA	5 U
Fluoranthene	ug/L	NA	NA	5 U	NA	NA	NA	5 U
Fluorene	ug/L	NA	NA	5 U	NA	NA	NA	5 U
Hexachlorobenzene	ug/L	NA	NA	5 U	NA	NA	NA	5 U
Hexachlorobutadiene	ug/L	NA	NA	5 U	NA	NA	NA	5 U
Hexachlorocyclopentadiene	ug/L	NA	NA	5 U	NA	NA	NA	5 U
Hexachloroethane	ug/L	NA	NA	2 U	NA	NA	NA	2 U
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	5 U	NA	NA	NA	5 U
Isophorone	ug/L	NA	NA	5 U	NA	NA	NA	5 U
Naphthalene	ug/L	NA	NA	5 U	NA	NA	NA	5 U
Nitrobenzene	ug/L	NA	NA	5 U	NA	NA	NA	5 U
N-Nitroso-di-n-propylamine	ug/L	NA	NA	5 U	NA	NA	NA	5 U
N-Nitrosodiphenylamine	ug/L	NA	NA	5 U	NA	NA	NA	5 U
Pentachlorophenol	ug/L	NA	NA	25 U	NA	NA	NA	25 U
Phenanthrene	ug/L	NA	NA	5 U	NA	NA	NA	5 U
Phenol	ug/L	NA	NA	5 U	NA	NA	NA	5 U
Pyrene	ug/L	NA	NA	5 U	NA	NA	NA	5 U
PCBs								
PCB-1016	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	0.2 U
PCB-1221	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	0.2 U
PCB-1232	ug/L	0.4 U	0.4 U	0.4 U	0.4 U	NA	NA	0.4 U
PCB-1242	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	0.2 U
PCB-1248	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	0.2 U
PCB-1254	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	0.2 U
PCB-1260	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	0.2 U
Total Aroclors	ug/L	ND	ND	ND	ND	NA	NA	ND
PCBs-Filtered								
PCB-1016	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	0.2 U
PCB-1221	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	0.2 U
PCB-1232	ug/L	0.4 U	0.4 U	0.4 U	0.4 U	NA	NA	0.4 U
PCB-1242	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	0.2 U
PCB-1248	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	0.2 U
PCB-1254	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	0.2 U
PCB-1260	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	0.2 U
Total Aroclors	ug/L	ND	ND	ND	ND	NA	NA	ND

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TABLE 2-19
DRUM REMEDIATION AREA AND FORMER HILLOCK AREA
INORGANIC CONSTITUENTS GROUNDWATER ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Date Collected:	Units	TW-241WT 08/08/98	TW-242WT 08/08/98	TWW-1 01/25/97	TWW-1 08/08/98	TWW-1 05/18/99	TWW-1 05/21/00	MW-126WT 07/30/95
Inorganics								
Aluminum	ug/L	NA	NA	NA	NA	NA	100 U	NA
Antimony	ug/L	NA	NA	NA	NA	NA	5 U	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	10 U	NA
Barium	ug/L	NA	NA	NA	NA	NA	146	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	4 U	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	1 U	NA
Calcium	ug/L	NA	NA	NA	NA	NA	249,000	NA
Chromium (Total)	ug/L	NA	NA	NA	NA	NA	5 U	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	10 U	NA
Copper	ug/L	NA	NA	NA	NA	NA	25 U	NA
Cyanide, Total	ug/L	NA	NA	NA	NA	NA	NA	5 U
Iron	ug/L	NA	NA	NA	NA	NA	100 U	NA
Lead	ug/L	NA	NA	NA	NA	NA	3 U	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	84,400	NA
Manganese	ug/L	NA	NA	NA	NA	NA	1,580	NA
Mercury	ug/L	NA	NA	NA	NA	NA	0.2 U	NA
Nickel	ug/L	NA	NA	NA	NA	NA	40 U	NA
Potassium	ug/L	NA	NA	NA	NA	NA	2,020 BJ	NA
Selenium	ug/L	NA	NA	NA	NA	NA	5 U	NA
Silver	ug/L	NA	NA	NA	NA	NA	5 U	NA
Sodium	ug/L	NA	NA	NA	NA	NA	839,000	NA
Thallium	ug/L	NA	NA	NA	NA	NA	7.6 B	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	20 U	NA
Zinc	ug/L	NA	NA	NA	NA	NA	20 U	NA
Inorganics-Filtered								
Aluminum	ug/L	NA	NA	100 U	NA	NA	100 U	NA
Antimony	ug/L	NA	NA	5 U	NA	NA	2.1 B	5 U
Arsenic	ug/L	NA	NA	5 U	NA	NA	10 U	5.3
Barium	ug/L	NA	NA	200 UL	NA	NA	145	200 U
Beryllium	ug/L	NA	NA	5 U	NA	NA	4 U	5 U
Cadmium	ug/L	NA	NA	0.5 U	NA	NA	1 U	0.2 UJ
Calcium	ug/L	NA	NA	318,000	NA	NA	251,000	NA
Chromium (Total)	ug/L	NA	NA	50 U	NA	NA	5 U	50 U
Cobalt	ug/L	NA	NA	50 U	NA	NA	10 U	50 U
Copper	ug/L	NA	NA	25 U	NA	NA	25 U	25 U
Cyanide, Total	ug/L	NA	NA	10 U	NA	NA	NA	NA
Iron	ug/L	NA	NA	110	NA	NA	127 U	NA
Lead	ug/L	NA	NA	3 U	NA	NA	3 U	3 U
Magnesium	ug/L	NA	NA	104,000	NA	NA	85,100	NA
Manganese	ug/L	NA	NA	2,110	NA	NA	1,610	NA
Mercury	ug/L	NA	NA	0.2 U	NA	NA	0.2 U	0.2 U
Nickel	ug/L	NA	NA	50 U	NA	NA	40 U	50 U
Potassium	ug/L	NA	NA	5,000 UL	NA	NA	2,210 BJ	NA
Selenium	ug/L	NA	NA	5 U	NA	NA	5 U	5 U
Silver	ug/L	NA	NA	0.5 U	NA	NA	5 U	0.5 U
Sodium	ug/L	NA	NA	858,000	NA	NA	845,000	NA
Thallium	ug/L	NA	NA	20 UG	NA	NA	6.3 B	2 UJ
Tin	ug/L	NA	NA	NA	NA	NA	NA	100 U
Vanadium	ug/L	NA	NA	20 U	NA	NA	20 U	20 U
Zinc	ug/L	NA	NA	166	NA	NA	20 U	20 U

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TABLE 2-20
GENERIC TABLE NOTES

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

General Notes:

Soil concentrations are presented in milligrams per kilogram (mg/kg).
Duplicate results are presented in brackets.
Total Xylenes reported as the sum of m&p-Xylene and o-Xylene.
Excavated samples results are shaded.

Data Qualifiers:

B = (Organic) The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect. (Inorganic) The analyte has been positively identified. The concentration is between the instrument detection limit and the required reporting limit.
D = Concentration is based on a diluted sample analysis.
E = The compound was quantitated above the calibration range.
J = The compound/constituent was positively identified; however, the associated numerical value is an estimated concentration only.
NA = Not analyzed for this constituent.
R = Result rejected.
U = The compound/constituent was analyzed for but not detected. The associated value is the compound/constituent quantitation limit.
UJ = The compound/constituent was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.
* = Duplicate analysis not within control limits.
£ = Serial dilution of a digestive in the analytical batch indicates that physical and chemical interferences are present.
G = Elevated reporting limit. The reporting limit is elevated due to matrix interference.
GWa = Elevated reporting limit; the reporting limit is elevated due to matrix interference. Post digestion spike recovery fell between 40-85% due to matrix interference.
N = Tentative identification. Consider present. Specific methods may be needed to confirm its presences or absence in future sampling efforts.

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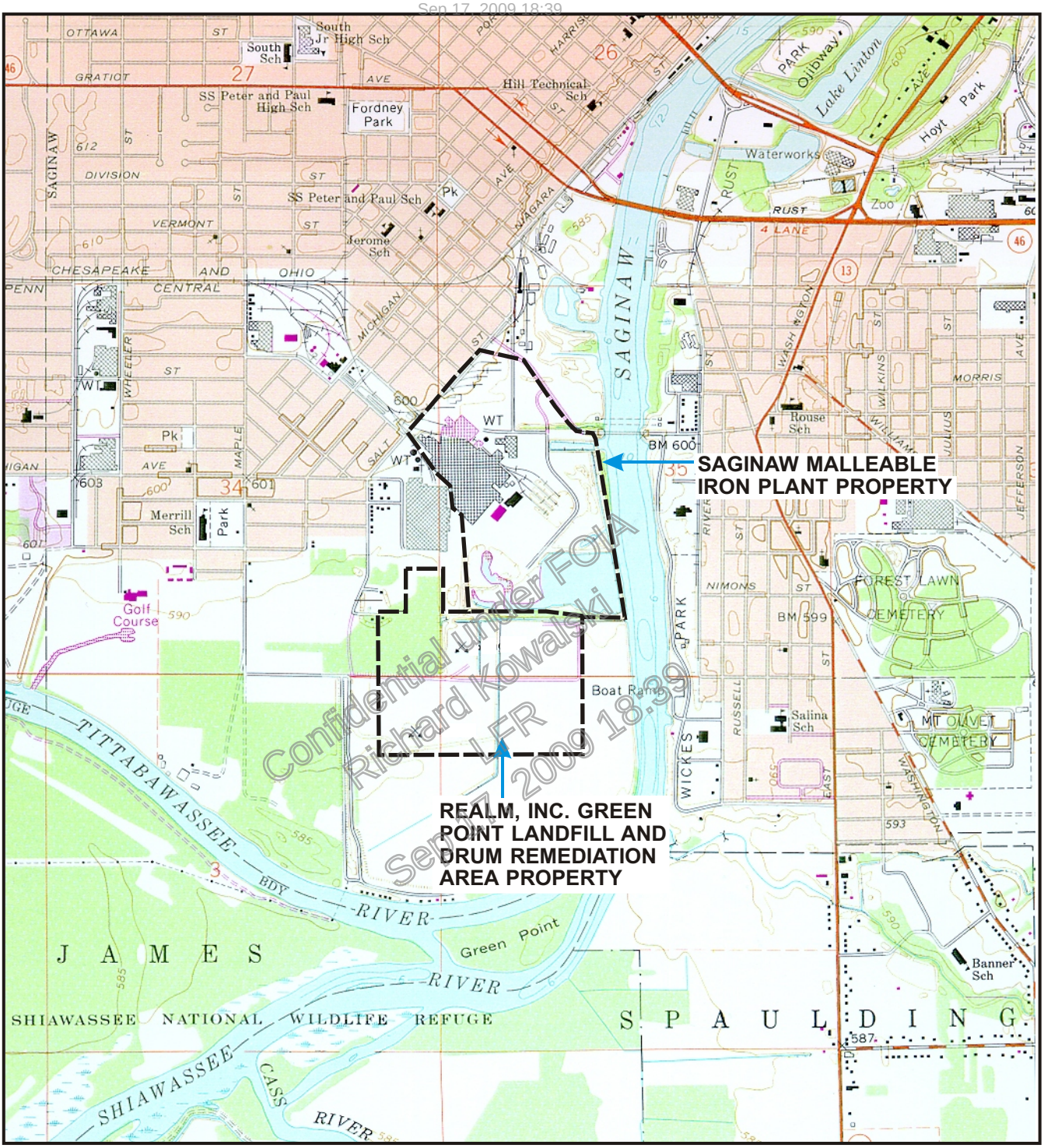
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NOTES:

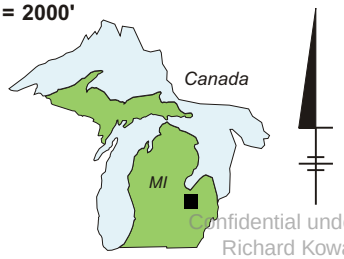
1. Base map source: USGS 7.5 Min. Topo. Quad., Saginaw, Mich. (1967, Photorevised 1973).
2. All property boundary lines are approximate.

2000' 0 2000'

Approximate Scale: 1" = 2000'

LEGEND:

Site Boundary



Area Location

GM SIGAINAW MALLEABLE IRON PLANT PROPERTY, AND REALM, INC. GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

REMEDIAL ACTION PLAN

SITE LOCATION MAP

ARCADIS

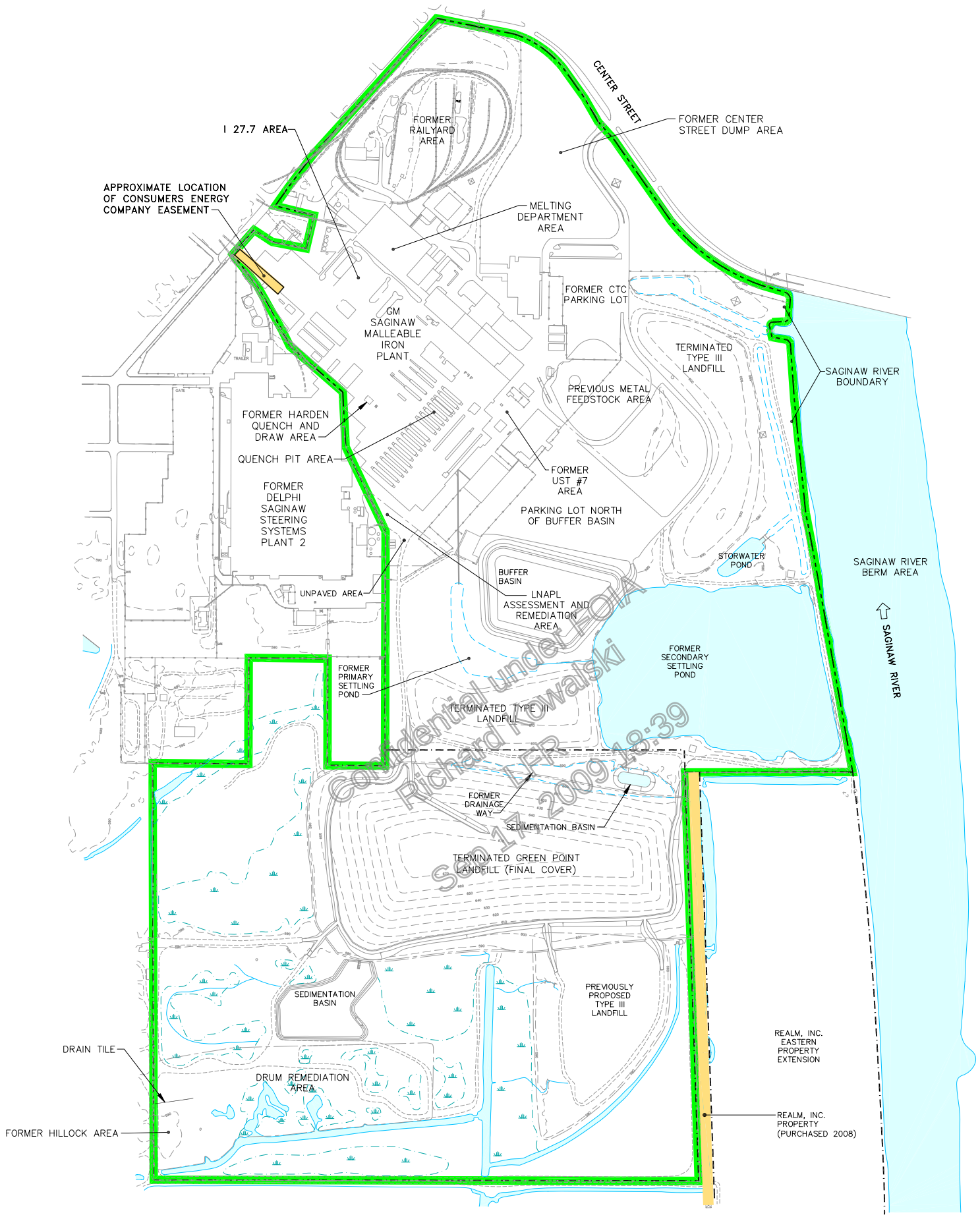
FIGURE
1-1

07/24/08 SYRACUSE, NY-141-DJH-KLS
B0027608/0000/00110/CDR/27608N04.CDR

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XREFS: IMAGES: PROJECTNAME: —
27608X01



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NOTES:

1. THIS PHOTOGRAMMETRIC BASE MAP FOR THE GM SAGINAW MALLEABLE IRON PLANT AND DELPHI SAGINAW STEERING SYSTEMS PLANT 2 PROPERTIES WAS PREPARED BY LOCKWOOD MAPPING, INC. OF ROCHESTER, NEW YORK. AERIAL PHOTOGRAPHY WAS CONDUCTED ON 11/11/94. ORIGINAL LOCKWOOD MAP WAS AT A SCALE OF 1"=100' AND WAS INTERPRETED FOR TWO-FOOT CONTOURS.
2. BASE MAP HAS BEEN MODIFIED TO INCORPORATE BUFFER BASIN, SEDIMENTATION BASINS, WETLANDS MITIGATION AREA, AND GREEN POINT LANDFILL (GPL) FINAL COVER FROM THE FINAL ENGINEERING DESIGN REPORT PREPARED BY BBL FOR THE GPL, DATED JANUARY 1998.
3. VERTICAL DATUM REFERENCED TO NGVD OF 1929, HORIZONTAL DATUM REFERENCED TO MICHIGAN SPC-NAD 1983.
4. PROPERTY BOUNDARY FOR REALM, INC, DIGITIZED FROM SPICER GROUP DRAWING NO. A-21854-1, DATED 3/27/98.
5. BASE MAP INFORMATION SOUTH OF MAIN REALM, INC. PROPERTY LINE FROM AIR-LAND SURVEYS, INC. PHOTO DATE 11/90, MAPPING DATE 10/91.

LEGEND:

- GM SAGINAW MALLEABLE IRON PLANT PROPERTY LINE (APPROX.)
- REALM, INC. PROPERTY LINE (APPROX.)
- UNPAVED ROAD
- GROUND SURFACE ELEVATION CONTOUR (10 FT INTERVAL)
- FENCE LINE
- SWAMPY AREA
- APPROXIMATE LOCATION OF POWER COMPANY EASEMENT
- SITE

0 300' 600'
GRAPHIC SCALE

SAGINAW MALLEABLE IRON PLANT PROPERTY,
GREEN POINT LANDFILL, AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN
REMEDIAL ACTION PLAN

SITE PLAN

ARCADIS

FIGURE
1-2

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27608X01

S1155 AREA EXCAVATED
S1157 AREA EXCAVATED
S1159 AREA EXCAVATED
S1161 AREA EXCAVATED
S1163 AREA EXCAVATED
S1165 AREA EXCAVATED
S1167 AREA EXCAVATED
S1169 AREA EXCAVATED
S1171 AREA EXCAVATED
S1173 AREA EXCAVATED
S1175 AREA EXCAVATED
S1177 AREA EXCAVATED
S2031 AREA EXCAVATED
S1158 AREA EXCAVATED
S1160 AREA EXCAVATED
S1162 AREA EXCAVATED
S1164 AREA EXCAVATED
S1166 AREA EXCAVATED
S1168 AREA EXCAVATED
S1170 AREA EXCAVATED
S1172 AREA EXCAVATED
S1174 AREA EXCAVATED
S1176 AREA EXCAVATED
S1178 AREA EXCAVATED
RAILYARD
S2032 AREA EXCAVATED
S2033 AREA EXCAVATED
S2034 AREA EXCAVATED
S2035 AREA EXCAVATED
S2036 AREA EXCAVATED
S1179 AREA EXCAVATED
S1180 AREA EXCAVATED
S1181 AREA EXCAVATED
S1182 AREA EXCAVATED
S1183 AREA EXCAVATED

BH07-98	1 – 3 (ft)	7 – 9 (ft)	13 – 15 (ft)
Volatiles			
Benzene	NS	NS	NS
PCBs			
Total PCBs	ND(0.33)	ND(0.33)	1500 (IDC)
Inorganics			
Lead	NS	NS	NS

BH01-98	1 – 3 (ft)	5 – 7 (ft)	9 – 11 (ft)
Volatiles			
Benzene	NS	NS	NS
PCBs			
Total PCBs	100 (IDC)	35 (IDC)	0.4
Inorganics			
Lead	NS	NS	NS

BH08-98	1 – 3 (ft)	7 – 9 (ft)
Volatiles		
Benzene	NS	NS
PCBs		
Total PCBs	0.51	0.71
Inorganics		
Lead	NS	NS

BH05-98	1 – 3 (ft)	5 – 7 (ft)	7 – 9 (ft)
Volatiles			
Benzene	NS	NS	NS
PCBs			
Total PCBs	4900 (IDC)	3.6	3.9
Inorganics			
Lead	NS	NS	NS

BH06-98	1 – 3 (ft)	7 – 9 (ft)	13 – 15 (ft)
Volatiles			
Benzene	NS	NS	NS
PCBs			
Total PCBs	93 (IDC)	ND(0.33)	ND(0.33)
Inorganics			
Lead	NS	NS	NS

BH02-98	1 – 3 (ft)	5 – 7 (ft)	9 – 11 (ft)
Volatiles			
Benzene	NS	NS	NS
PCBs			
Total PCBs	2	1.5	ND(0.33)
Inorganics			
Lead	NS	NS	NS

BH03-98	1 – 3 (ft)	3 – 5 (ft)	5 – 6.5 (ft)
Volatiles			
Benzene	NS	NS	NS
PCBs			
Total PCBs	0.44	0.37	29 (IDC)
Inorganics			
Lead	NS	NS	NS

BH04-98	1 – 3 (ft)	5 – 7 (ft)	7 – 7.25 (ft)
Volatiles			
Benzene	NS	NS	NS
PCBs			
Total PCBs	42 (IDC)	0.71	19.8 (IDC)
Inorganics			
Lead	NS	NS	NS

S3043	0 – 0.5 (ft)
Volatiles	
Benzene	NS
PCBs	
Total PCBs	6.3
Inorganics	
Lead	NS

S3044	0 – 0.5 (ft)
Volatiles	
Benzene	NS
PCBs	
Total PCBs	0.67
Inorganics	
Lead	NS

S3045	0 – 0.5 (ft)
Volatiles	
Benzene	NS
PCBs	
Total PCBs	1.4
Inorganics	
Lead	NS

S3046	0 – 0.5 (ft)
Volatiles	
Benzene	NS
PCBs	
Total PCBs	3.1
Inorganics	
Lead	NS

S3047	0 – 0.5 (ft)
Volatiles	
Benzene	NS
PCBs	
Total PCBs	ND(1)
Inorganics	
Lead	NS

S3048	0 – 0.5 (ft)
Volatiles	
Benzene	NS
PCBs	
Total PCBs	2.1
Inorganics	
Lead	NS

S1188	3 – 5 (ft)
Volatiles	
Benzene	NS
PCBs	
Total PCBs	41 (IDC)
Inorganics	
Lead	NS

S1189	3 – 5 (ft)
Volatiles	
Benzene	NS
PCBs	
Total PCBs	1.3
Inorganics	
Lead	NS

BBL-MW2	4 – 6 (ft)
Volatiles	
Benzene	0.003 J
PCBs	
Total PCBs	ND(0.19)
Inorganics	
Lead	12

BBL-MW3	6 – 8 (ft)
Volatiles	
Benzene	7.3 J
PCBs	
Total PCBs	ND(0.19)
Inorganics	
Lead	13.2

BBL-MW1	4 – 6 (ft)
Volatiles	
Benzene	ND(0.013)
PCBs	
Total PCBs	1.6
Inorganics	
Lead	38

BBL-SB3	6 – 8 (ft)	8 – 10 (ft)
Volatiles		
Benzene	0.043	21 J (ISVIA)
PCBs		
Total PCBs	ND(0.2)	ND(0.19)
Inorganics		
Lead	38.2	25.5

BBL-SB4	0 – 2 (ft)	8 – 10 (ft)
Volatiles		
Benzene	2.7 J	3
PCBs		
Total PCBs	ND(0.18)	ND(0.21)
Inorganics		
Lead	14.8	14.9

BBL-SB1	4 – 6 (ft)	8 – 10 (ft)
Volatiles		
Benzene	ND(0.0057)	ND(3.5)
PCBs		
Total PCBs	ND(0.19)	ND(0.18)
Inorganics		
Lead	4.39	17.8

BBL-MW5	4 – 6 (ft)
Volatiles	
Benzene	ND(0.0056)
PCBs	
Total PCBs	ND(0.18)
Inorganics	
Lead	2.55

BBL-SB2	0 – 2 (ft)	8 – 10 (ft)
Volatiles		
Benzene	0.0025 J	0.01
PCBs		
Total PCBs	ND(0.18)	ND(0.19)
Inorganics		
Lead	28.3	NS

BBL-MW4	4 – 6 (ft)
Volatiles	
Benzene	ND(0.0055 J)
PCBs	
Total PCBs	ND(0.18)
Inorganics	
Lead	4.48

SB-362	0 – 2 (ft)	4 – 6 (ft)	8 – 10 (ft)
Volatiles			
Benzene	ND(0.0059)	ND(0.011)	ND(0.031)
PCBs			
Total PCBs	9.6	0.12 J	0.65
Inorganics			
Lead	1020 (IDC)	93.2	13.2

SB-363	0 – 2 (ft)	4 – 6 (ft)	8 – 10 (ft)
Volatiles			
Benzene	0.0026 J	ND(0.0055)	0.0075
PCBs			
Total PCBs	5.5	2.97	0.24
Inorganics			
Lead	1320 (IDC)	1780 (IDC)	26.5

P1-B46	2 – 4 (ft)
Volatiles	
Benzene	ND(0.01)
PCBs	
Total PCBs	NS
Inorganics	
Lead	NS

P1-B45	4 – 6 (ft)
Volatiles	
Benzene	0.13
PCBs	
Total PCBs	NS
Inorganics	
Lead	NS

P1-B44	2 – 4 (ft)
Volatiles	
Benzene	0.025
PCBs	
Total PCBs	NS
Inorganics	
Lead	NS

P1-B43	2 – 4 (ft)
Volatiles	
Benzene	ND(0.01)
PCBs	
Total PCBs	NS
Inorganics	
Lead	NS

P1-B42	4 – 6 (ft)
Volatiles	
Benzene	ND(0.01)
PCBs	
Total PCBs	NS
Inorganics	
Lead	NS

US-2	0 – 1 (ft)
Volatiles	
Benzene	ND(0.0054)
PCBs	
Total PCBs	0.15 J
Inorganics	
Lead	14.7 J

US-5-5	0 – 1 (ft)
Volatiles	
Benzene	NS
PCBs	
Total PCBs	0.73 J
Inorganics	
Lead	NS

US-5-8	0 – 1 (ft)
Volatiles	
Benzene	NS
PCBs	
Total PCBs	ND(0.19)
Inorganics	
Lead	NS

US-5-4	0 – 1 (ft)
Volatiles	
Benzene	NS
PCBs	
Total PCBs	4.4 J
Inorganics	
Lead	NS

US-6	0 – 1 (ft)
Volatiles	
Benzene	ND(0.0052)
PCBs	
Total PCBs	3.8
Inorganics	
Lead	49.2 J

US-1	0 – 1 (ft)
Volatiles	
Benzene	ND(0.0063)
PCBs	
Total PCBs	0.13 J
Inorganics	
Lead	16.4 J

SB-325	8 – 10 (ft)
Volatiles	
Benzene	0.067 J
PCBs	
Total PCBs	ND(0.2)
Inorganics	
Lead	NS

US-3	0 – 1 (ft)
Volatiles	
Benzene	ND(0.0053)
PCBs	
Total PCBs	0.04 J
Inorganics	
Lead	13 J

US-4	0 – 1 (ft)
Volatiles	
Benzene	ND(0.0053)
PCBs	
Total PCBs	0.44
Inorganics	
Lead	33.5 J

US-5-6	0 – 1 (ft)
Volatiles	
Benzene	NS
PCBs	
Total PCBs	2.2 J
Inorganics	
Lead	NS

US-7	0 – 1 (ft)
Volatiles	
Benzene	ND(0.0051)
PCBs	
Total PCBs	1
Inorganics	
Lead	12.6 J

US-5-2	0 – 1 (ft)
Volatiles	
Benzene	NS
PCBs	
Total PCBs	3.1 J
Inorganics	
Lead	NS

US-8	0 – 1 (ft)
Volatiles	
Benzene	ND(0.0051)
PCBs	
Total PCBs	5
Inorganics	
Lead	40.8 J

US-5-1 AREA EXCAVATED
US-5 AREA EXCAVATED
US-5-3 AREA EXCAVATED
US-5-7 AREA EXCAVATED
GATE
I27.7 AREA
MELTING DEPARTMENT
GM SAGINAW MALLEABLE IRON PLANT
QUENCH PIT AREA
FORMER UST #7
FORMER DELPHI SAGINAW STEERING SYSTEMS PLANT 2 (DEMOLISHED TO SLAB)
UNPAVED/LNAPL AREA
BUFFER BASIN

RS-8	(0 – 1 ft)
Inorganics	
Manganese	2,060 (IPSIC)

SAMPLE LOCATION ID
SAMPLE DEPTH
RELEVANT GENERIC MDEQ CRITERIA EXCEEDED IN SAMPLE
CONCENTRATION IN MILLIGRAMS PER KILOGRAM (mg/kg); PARTS PER MILLION (ppm)
DETECTED CONSTITUENT

NOTES:

1. THIS PHOTOGRAMMETRIC BASE MAP FOR THE GM SAGINAW MALLEABLE IRON PLANT AND DELPHI SAGINAW STEERING SYSTEMS PLANT 2 PROPERTIES WAS PREPARED BY LOCKWOOD MAPPING, INC. OF ROCHESTER, NEW YORK. AERIAL PHOTOGRAPHY WAS CONDUCTED ON 11/11/94. ORIGINAL LOCKWOOD MAP WAS AT A SCALE OF 1"=100' AND WAS INTERPRETED FOR TWO-FOOT CONTOURS.
2. SAMPLING LOCATIONS SURVEYED BY ATWELL-HICKS, INC. UTICA, MICHIGAN, FILE NO. M1014SU2, FILE DATE 3/22/96, REVISED 8/8/96, OR SPICER GROUP.
3. VERTICAL DATUM REFERENCED TO NGVD OF 1929, HORIZONTAL DATUM REFERENCED TO MICHIGAN SPC-NAD 1983.
4. CONSTITUENTS PRESENTED HERE ARE THOSE WHICH EXCEED ONE OR MORE RELEVANT MICHIGAN PART 201 GENERIC INDUSTRIAL SCREENING CRITERIA (GCCP, IDC, IPSIC, ISVIA, VSIC) IN SOIL SAMPLES COLLECTED IN THE AREA SHOWN ON THIS FIGURE.
5. ALL CONCENTRATIONS PRESENTED IN DRY-WEIGHT MILLIGRAMS PER KILOGRAM (mg/kg).
6. DUPLICATE ANALYSES SHOWN WITHIN BRACKETS.
7. NS-NOT ANALYZED FOR THIS CONSTITUENT.

LEGEND:

- GM SAGINAW MALLEABLE IRON PLANT PROPERTY LINE (APPROX.)
- UNPAVED ROAD
- 620 GROUND SURFACE ELEVATION CONTOUR (10 FT INTERVAL)
- FENCE LINE
- SB-318 SOIL BORING
- RS-3 SURFACE SOIL SAMPLE
- US-S1 CONFIRMATION SOIL SAMPLE
- MONITORING WELL WITH OBSERVED LNAPL (2004 AND 2005)
- X-11AR MONITORING WELL
- MW-122WT,S1,S2 MONITORING WELL CLUSTER
- TW-223 TEMPORARY MONITORING WELL
- TP-1 PIEZOMETER
- RW-1 RECOVERY WELL

(IDC) – INDUSTRIAL DIRECT CONTACT
(IPSIC) – CONCENTRATION IS ABOVE THE GENERIC INDUSTRIAL PARTICULATE SOIL INHALATION CRITERIA.
(ISVIA) – INDUSTRIAL SOIL VOLATILIZATION TO INDOOR AIR

DATA QUALIFIERS
J – ESTIMATED CONCENTRATION

0 100' 200'
GRAPHIC SCALE

SAGINAW MALLEABLE IRON PLANT PROPERTY,
GREEN POINT LANDFILL, AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN
REMEDIAL ACTION PLAN

SMI PLANT AREA (I27.7, MELTING DEPARTMENT, FORMER UST #7, UNPAVED/LNAPL AREA AND QUENCH PIT AREA) SOIL ANALYTICAL DATA AND LNAPL EXTENT

ARCADIS

FIGURE
2-1

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PL-3	
DEPTH	0.67 – 1.67 (ft)
Manganese	10700 (IPSIC)

VE-1	
DEPTH	0.75 – 1.58 (ft)
Manganese	150

PL-2	
DEPTH	0.75 – 1.67 (ft)
Manganese	6600 (IPSIC)/7700 (IPSIC)

VE-2	
DEPTH	0.92 – 1.67 (ft)
Manganese	1300

PL-1	
DEPTH	0.75 – 1.21 (ft)
Manganese	11600 (IPSIC)

PL-4	
DEPTH	0.75 – 1.5 (ft)
Manganese	1800 (IPSIC)

FS-2	
DEPTH	0 – 1 (ft)
Manganese	330 J

SB-352	
DEPTH	0 – 2 (ft)
Manganese	1120 *

FS-1	
DEPTH	0 – 1 (ft)
Manganese	398 J

FS-3	
DEPTH	0 – 1 (ft)
Manganese	1200 J

SB-353	
DEPTH	0 – 2 (ft)
Manganese	1230 *

FS-4	
DEPTH	0 – 1 (ft)
Manganese	290 J

SB-354	
DEPTH	0 – 2 (ft)
Manganese	474

SB-355
EXCAVATED

BH9		
DEPTH	0 – 2 (ft)	2 – 4 (ft)
Manganese	965	255

BH10		
DEPTH	0 – 2 (ft)	2 – 4 (ft)
Manganese	9,200 (IPSIC)	11,900 (IPSIC)

SB-342
EXCAVATED

SB-336
EXCAVATED

FS-5	
DEPTH	0 – 1 (ft)
Manganese	371 J

SB-305		
DEPTH	0 – 1 (ft)	2 – 4 (ft)	6 – 8 (ft)
Manganese	232	6820 (IPSIC)	3830 (IPSIC)

FS-8	
DEPTH	0 – 1 (ft)
Manganese	681 J

FS-6	
DEPTH	0 – 1 (ft)
Manganese	174 J /280 J

SB-304		
DEPTH	0 – 1 (ft)	2 – 4 (ft)	6 – 8 (ft)
Manganese	6140 (IPSIC)	9190 (IPSIC)	1040

FS-7	
DEPTH	0 – 1 (ft)
Manganese	162 J

SAMPLE LOCATION ID
SAMPLE DEPTH
RELEVANT GENERIC MDEQ CRITERIA EXCEEDED IN SAMPLE
CONCENTRATION IN MILLIGRAMS PER KILOGRAM (mg/kg); PARTS PER MILLION (ppm)
DETECTED CONSTITUENT

NOTES:

1. THIS PHOTOGRAMMETRIC BASE MAP FOR THE GM SAGINAW MALLEABLE IRON PLANT AND DELPHI SAGINAW STEERING SYSTEMS PLANT 2 PROPERTIES WAS PREPARED BY LOCKWOOD MAPPING, INC. OF ROCHESTER, NEW YORK. AERIAL PHOTOGRAPHY WAS CONDUCTED ON 11/11/94. ORIGINAL LOCKWOOD MAP WAS AT A SCALE OF 1"=100' AND WAS INTERPRETED FOR TWO-FOOT CONTOURS.
2. AERIAL PHOTOGRAPH FROM 10/29/1965.
3. SAMPLING LOCATIONS SURVEYED BY ATWELL-HICKS, INC. UTICA, MICHIGAN, FILE NO. M1014SU2, FILE DATE 3/22/96, REVISED 8/8/96, OR SPICER GROUP.
4. VERTICAL DATUM REFERENCED TO NGVD OF 1929, HORIZONTAL DATUM REFERENCED TO MICHIGAN SPC-NAD 1983.
5. CONSTITUENTS PRESENTED HERE ARE THOSE WHICH EXCEED ONE OR MORE RELEVANT MICHIGAN PART 201 GENERIC INDUSTRIAL SCREENING CRITERIA (GCCP, IDC, IPSIC, ISVIA, IVSICI) IN SOIL SAMPLES COLLECTED IN THE AREA SHOWN ON THIS FIGURE.
6. ALL CONCENTRATIONS PRESENTED IN DRY-WEIGHT MILLIGRAMS PER KILOGRAM (mg/kg).
7. DUPLICATE ANALYSES SHOWN WITHIN BRACKETS.

LEGEND:

- GM SAGINAW MALLEABLE IRON PLANT PROPERTY LINE (APPROX.)
- UNPAVED ROAD
- GROUND SURFACE ELEVATION CONTOUR (10 FT INTERVAL)
- FENCE LINE
- SB-318 ▲ SOIL BORING
- RS-3 ▲ SURFACE SOIL SAMPLE

(IPSIC) – CONCENTRATION IS ABOVE THE GENERIC INDUSTRIAL PARTICULATE SOIL INHALATION CRITERIA.

DATA QUALIFIERS

* – DUPLICATE ANALYSIS NOT WITHIN CONTROL LIMITS

J – ESTIMATED CONCENTRATION

0 100' 200'
GRAPHIC SCALE

SAGINAW MALLEABLE IRON PLANT PROPERTY,
GREEN POINT LANDFILL, AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN
REMEDIAL ACTION PLAN

PREVIOUS METAL FEEDSTOCK AREA AND FORMER PARKING LOT SOIL ANALYTICAL DATA

ARCADIS

FIGURE
2-2

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RS-2-6	
DEPTH	0 – 1 (ft)
PCBs	
Total PCBs	NS
Inorganics	
Lead	214 J /1370 J (IDC)
Manganese	NS

RS-2-1	
DEPTH	0 – 1 (ft)
PCBs	
Total PCBs	NS
Inorganics	
Lead	279 J
Manganese	NS

RS-2	
DEPTH	0 – 1 (ft)
PCBs	
Total PCBs	3.9
Inorganics	
Lead	530 J
Manganese	3320 J (IPSIC)

RS-2-2	
DEPTH	0 – 1 (ft)
PCBs	
Total PCBs	NS
Inorganics	
Lead	237 J
Manganese	NS

RS-2-3	
DEPTH	0 – 1 (ft)
PCBs	
Total PCBs	NS
Inorganics	
Lead	335 J
Manganese	NS

RS-2-4	
DEPTH	0 – 1 (ft)
PCBs	
Total PCBs	NS
Inorganics	
Lead	456 J
Manganese	NS

RS-2-5	
DEPTH	0 – 1 (ft)
PCBs	
Total PCBs	NS
Inorganics	
Lead	769 J
Manganese	NS

RS-5-1	
DEPTH	0 – 1 (ft)
PCBs	
Total PCBs	2.7 J
Inorganics	
Lead	NS
Manganese	NS

RS-5-2	
DEPTH	0 – 1 (ft)
PCBs	
Total PCBs	0.7 J
Inorganics	
Lead	NS
Manganese	NS

RS-2-8	
DEPTH	0 – 1 (ft)
PCBs	
Total PCBs	NS
Inorganics	
Lead	209 J
Manganese	NS

RS-2-7	
DEPTH	0 – 1 (ft)
PCBs	
Total PCBs	NS
Inorganics	
Lead	159 J
Manganese	NS

RS-1	
DEPTH	0 – 1 (ft)
PCBs	
Total PCBs	0.83
Inorganics	
Lead	97.9 J
Manganese	955 J

RS-10	
DEPTH	0 – 1 (ft)
PCBs	
Total PCBs	NS
Inorganics	
Lead	NS
Manganese	449

RS-9	
DEPTH	0 – 1 (ft)
PCBs	
Total PCBs	NS
Inorganics	
Lead	NS
Manganese	1560 (IPSIC)

RS-17	
DEPTH	0 – 1 (ft)
PCBs	
Total PCBs	NS
Inorganics	
Lead	NS
Manganese	5470 (IPSIC)

RS-16	
DEPTH	0 – 1 (ft)
PCBs	
Total PCBs	NS
Inorganics	
Lead	NS
Manganese	632

RS-15	
DEPTH	0 – 1 (ft)
PCBs	
Total PCBs	NS
Inorganics	
Lead	NS
Manganese	329

BH11		
DEPTH	0 – 2 (ft)	2 – 4 (ft)
PCBs		
Total PCBs	0.33	ND(0.31)
Inorganics		
Lead	217	NS
Manganese	2,540 (IPSIC)	191

RS-18	
DEPTH	0 – 1 (ft)
PCBs	
Total PCBs	NS
Inorganics	
Lead	NS
Manganese	25

RS-4	
DEPTH	0 – 1 (ft)
PCBs	
Total PCBs	ND(0.17) /ND(0.17)
Inorganics	
Lead	30.1 J /29.8 J
Manganese	300 /463

RS-5-8	
DEPTH	0 – 1 (ft)
PCBs	
Total PCBs	2.1 J
Inorganics	
Lead	NS
Manganese	NS

BH12		
DEPTH	0 – 2 (ft)	2 – 4 (ft)
PCBs		
Total PCBs	11 [11]	0.11 J
Inorganics		
Lead	400 J [56.8 J]	NS
Manganese	7,380 (IPSIC) [6,770 (IPSIC)]	7,470 (IPSIC)

RS-3	
DEPTH	0 – 1 (ft)
PCBs	
Total PCBs	6.9
Inorganics	
Lead	161 J
Manganese	5030 J (IPSIC)

RS-11	
DEPTH	0 – 1 (ft)
PCBs	
Total PCBs	NS
Inorganics	
Lead	NS
Manganese	3650 (IPSIC)

RS-5-3	
DEPTH	0 – 1 (ft)
PCBs	
Total PCBs	1 J
Inorganics	
Lead	NS
Manganese	NS

RS-12	
DEPTH	0 – 1 (ft)
PCBs	
Total PCBs	NS
Inorganics	
Lead	NS
Manganese	2310 (IPSIC)

RS-5-4	
DEPTH	0 – 1 (ft)
PCBs	
Total PCBs	4.4 J
Inorganics	
Lead	NS
Manganese	NS

RS-6	
DEPTH	0 – 1 (ft)
PCBs	
Total PCBs	7
Inorganics	
Lead	98.1 J
Manganese	2020 (IPSIC)

RS-5-5	
DEPTH	0 – 1 (ft)
PCBs	
Total PCBs	1.9
Inorganics	
Lead	NS
Manganese	NS

RS-5
AREA EXCAVATED

RS-7	
DEPTH	0 – 1 (ft)
PCBs	
Total PCBs	ND(0.18)
Inorganics	
Lead	6.91 J
Manganese	551

RS-5-7	
DEPTH	0 – 1 (ft)
PCBs	
Total PCBs	1.59 J /1.4
Inorganics	
Lead	NS
Manganese	NS

RS-14	
DEPTH	0 – 1 (ft)
PCBs	
Total PCBs	NS
Inorganics	
Lead	NS
Manganese	2380 (IPSIC)

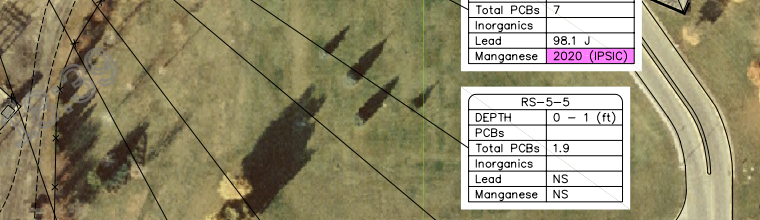
RS-13	
DEPTH	0 – 1 (ft)
PCBs	
Total PCBs	NS
Inorganics	
Lead	NS
Manganese	2360 (IPSIC) /1530 (IPSIC)

RS-8	
DEPTH	0 – 1 (ft)
PCBs	
Total PCBs	5.3
Inorganics	
Lead	72.2 J
Manganese	2060 (IPSIC)

RS-5-6	
DEPTH	0 – 1 (ft)
PCBs	
Total PCBs	4.2 J
Inorganics	
Lead	NS
Manganese	NS

RY-B2	
DEPTH	NA
PCBs	
Total PCBs	ND(0.33)
Inorganics	
Lead	NS
Manganese	NS

RY-B1	
DEPTH	NA
PCBs	
Total PCBs	ND(0.33)
Inorganics	
Lead	NS
Manganese	NS



NOTES:

1. THIS PHOTOGRAMMETRIC BASE MAP FOR THE GM SAGINAW MALLEABLE IRON PLANT AND DELPHI SAGINAW STEERING SYSTEMS PLANT 2 PROPERTIES WAS PREPARED BY LOCKWOOD MAPPING, INC. OF ROCHESTER, NEW YORK. AERIAL PHOTOGRAPHY WAS CONDUCTED ON 11/11/94. ORIGINAL LOCKWOOD MAP WAS AT A SCALE OF 1"=100' AND WAS INTERPRETED FOR TWO-FOOT CONTOURS.
2. BASE MAP HAS BEEN MODIFIED TO INCORPORATE BUFFER BASIN, SEDIMENTATION BASINS, WETLANDS MITIGATION AREA, AND GREEN POINT LANDFILL (GPL) FINAL COVER FROM THE FINAL ENGINEERING DESIGN REPORT PREPARED BY BBL FOR THE GPL, DATED JANUARY 1998.
3. AERIAL PHOTOGRAPH FROM ADVANCED MAPPING TECHNOLOGIES (NOVEMBER 1997)
4. SAMPLING LOCATIONS SURVEYED BY ATWELL-HICKS, INC. UTICA, MICHIGAN, FILE NO. M1014SU2, FILE DATE 3/22/96, REVISED 8/8/96, OR SPICER GROUP.
5. VERTICAL DATUM REFERENCED TO NGVD OF 1929, HORIZONTAL DATUM REFERENCED TO MICHIGAN SPC-NAD 1983.
6. CONSTITUENTS PRESENTED HERE ARE THOSE WHICH EXCEED ONE OR MORE RELEVANT MICHIGAN PART 201 GENERIC INDUSTRIAL SCREENING CRITERIA (GCCP, IDC, IPSIC, ISVIA, IVSICI) IN SOIL SAMPLES COLLECTED IN THE AREA SHOWN ON THIS FIGURE.
7. ALL CONCENTRATIONS PRESENTED IN DRY-WEIGHT MILLIGRAMS PER KILOGRAM (mg/kg).
8. DUPLICATE ANALYSES SHOWN WITHIN BRACKETS.
9. NS-NOT ANALYZED FOR THIS CONSTITUENT.

LEGEND:

- GM SAGINAW MALLEABLE IRON PLANT PROPERTY LINE (APPROX.)
- UNPAVED ROAD
- GROUND SURFACE ELEVATION CONTOUR (10 FT INTERVAL)
- FENCE LINE
- SB-318 ▲ SOIL BORING
- RS-3 ▲ SURFACE SOIL SAMPLE

(IPSIC) – CONCENTRATION IS ABOVE THE GENERIC INDUSTRIAL PARTICULATE SOIL INHALATION CRITERIA.

(IDC) – INDUSTRIAL DIRECT CONTACT

DATA QUALIFIERS

J – ESTIMATED CONCENTRATION

0 100' 200'
GRAPHIC SCALE

SAGINAW MALLEABLE IRON PLANT PROPERTY,
GREEN POINT LANDFILL, AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN
REMEDIAL ACTION PLAN

FORMER RAILYARD AREA SOIL ANALYTICAL DATA

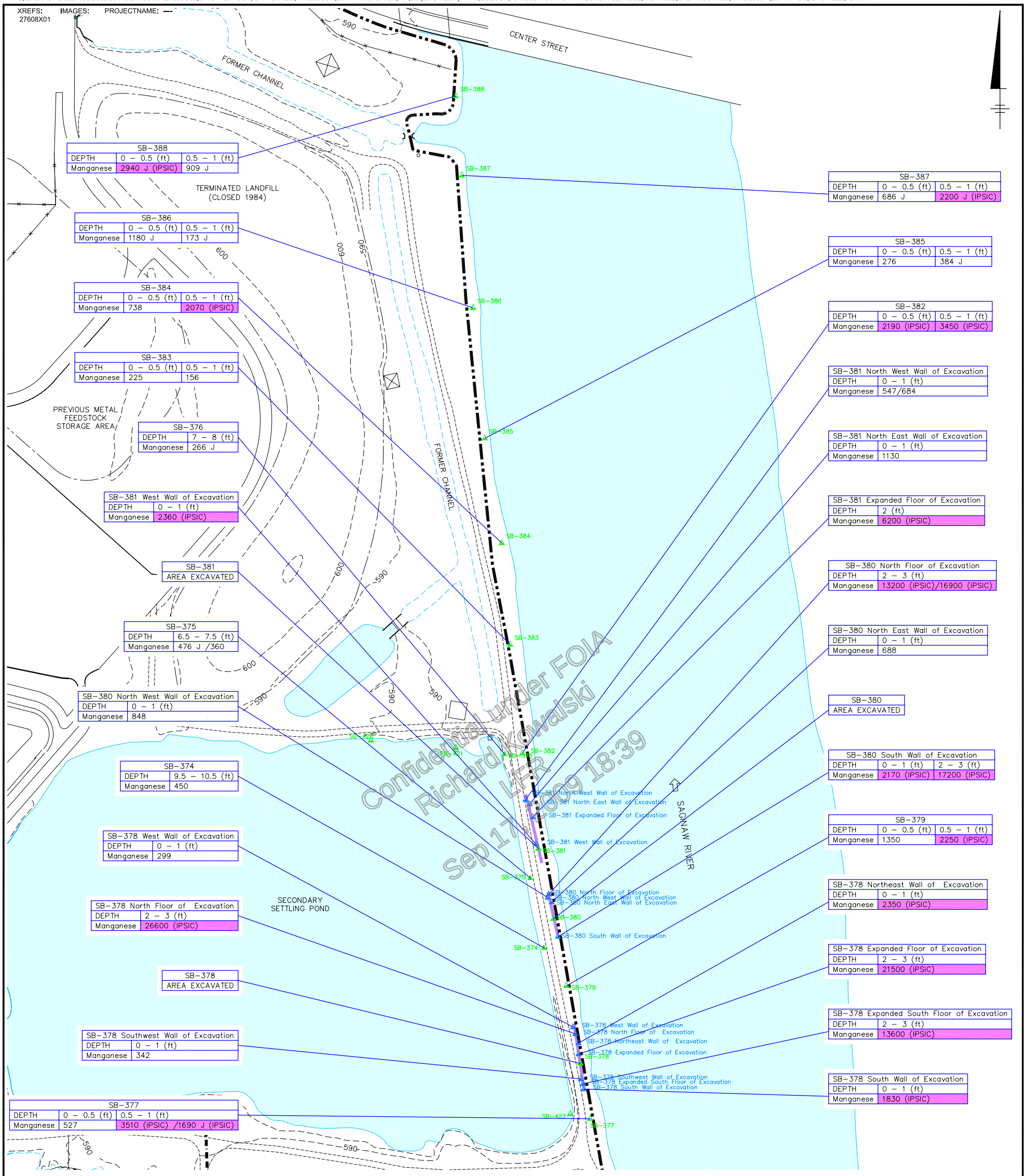
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FIGURE
2-3

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NOTES:

1. THIS PHOTOGRAMMETRIC BASE MAP FOR THE GM SAGINAW MALLEABLE IRON PLANT AND DELPHI SAGINAW STEERING SYSTEMS PLANT 2 PROPERTIES WAS PREPARED BY LOCKWOOD MAPPING, INC. OF ROCHESTER, NEW YORK. AERIAL PHOTOGRAPHY WAS CONDUCTED ON 11/11/94. ORIGINAL LOCKWOOD MAP WAS AT A SCALE OF 1"=100' AND WAS INTERPRETED FOR TWO-FOOT CONTOURS.
2. SAMPLING LOCATIONS SURVEYED BY ATWELL-HICKS, INC. UTICA, MICHIGAN, FILE NO. M1014SU2, FILE DATE 3/22/96, REVISED 8/8/96, OR SPICER GROUP.
3. VERTICAL DATUM REFERENCED TO NGVD OF 1929, HORIZONTAL DATUM REFERENCED TO MICHIGAN SPC-NAD 1983.
4. CONSTITUENTS PRESENTED HERE ARE THOSE WHICH EXCEED ONE OR MORE RELEVANT MICHIGAN PART 201 GENERIC INDUSTRIAL SCREENING CRITERIA (GCCP, IDC, IPSIC, ISVIA, IVSICI) IN SOIL SAMPLES COLLECTED IN THE AREA SHOWN ON THIS FIGURE.
5. ALL CONCENTRATIONS PRESENTED IN DRY-WEIGHT MILLIGRAMS PER KILOGRAM (mg/kg).
6. DUPLICATE ANALYSES SHOWN WITHIN BRACKETS.

LEGEND:

- GM SAGINAW MALLEABLE IRON PLANT PROPERTY LINE (APPROX.)
- UNPAVED ROAD
- GROUND SURFACE ELEVATION CONTOUR (10 FT INTERVAL)
- FENCE LINE
- SOIL EXCAVATION AREA
- SB-318 ▲ SOIL BORING
- RS-3 △ SURFACE SOIL SAMPLE
- SB-380 △ CONFIRMATION SOIL SAMPLE

(IPSIC) – CONCENTRATION IS ABOVE THE GENERIC INDUSTRIAL PARTICULATE SOIL INHALATION CRITERIA.

DATA QUALIFIERS

J – ESTIMATED CONCENTRATION

0 100' 200'
GRAPHIC SCALE

SAGINAW MALLEABLE IRON PLANT PROPERTY,
GREEN POINT LANDFILL, AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN
REMEDIAL ACTION PLAN

SAGINAW RIVER BERM AREA SOIL ANALYTICAL DATA

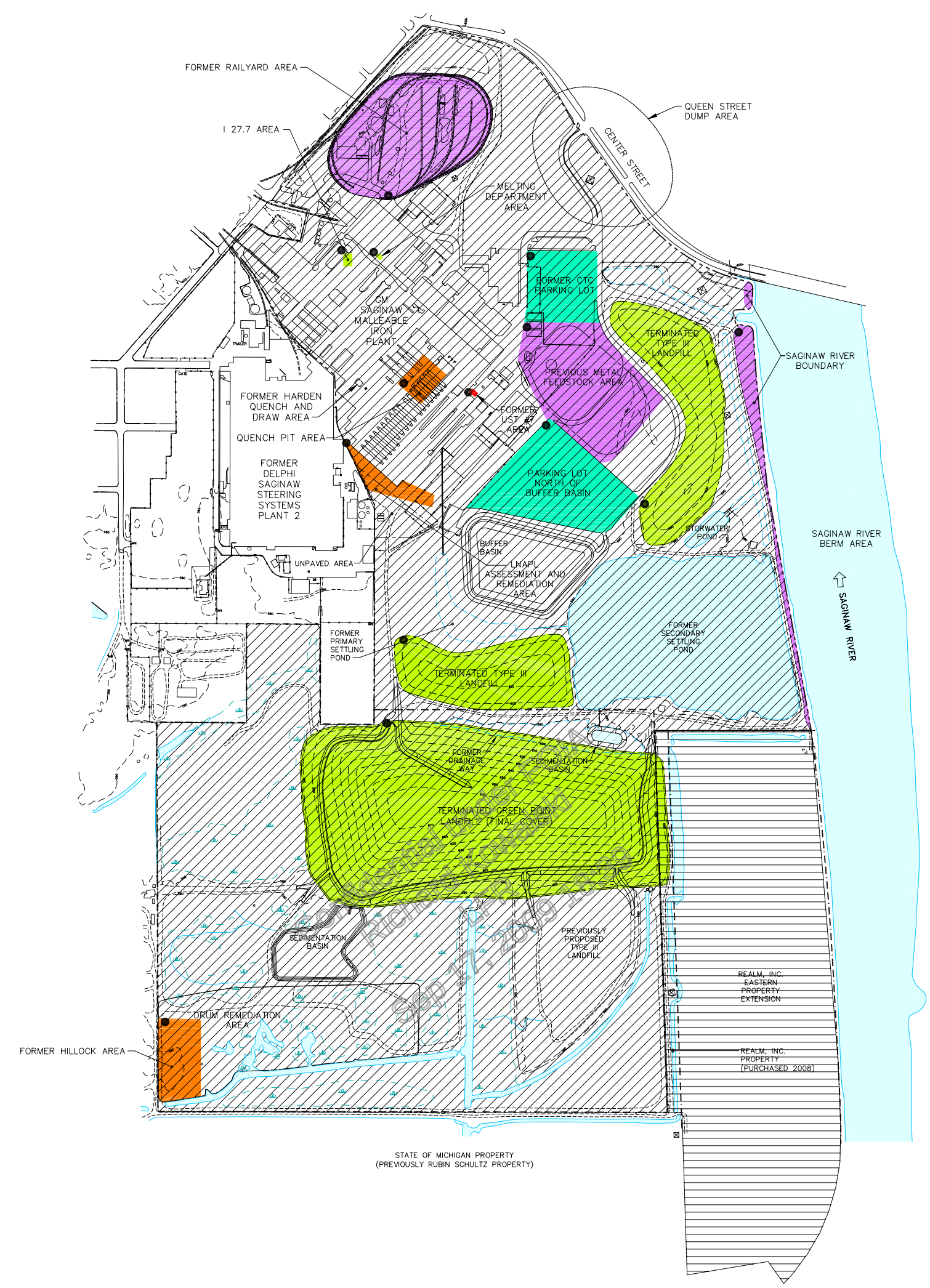
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FIGURE
2-4

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NOTES:

1. THIS PHOTOGRAMMETRIC BASE MAP FOR THE GM SAGINAW MALLEABLE IRON PLANT AND DELPHI SAGINAW STEERING SYSTEMS PLANT 2 PROPERTIES WAS PREPARED BY LOCKWOOD MAPPING, INC. OF ROCHESTER, NEW YORK. AERIAL PHOTOGRAPHY WAS CONDUCTED ON 11/11/94. ORIGINAL LOCKWOOD MAP WAS AT A SCALE OF 1"=100' AND WAS INTERPRETED FOR TWO-FOOT CONTOURS.
2. BASE MAP HAS BEEN MODIFIED TO INCORPORATE BUFFER BASIN, SEDIMENTATION BASINS, WETLANDS MITIGATION AREA, AND GREEN POINT LANDFILL (GPL) FINAL COVER FROM THE FINAL ENGINEERING DESIGN REPORT PREPARED BY BBL FOR THE GPL, DATED JANUARY 1998.
3. VERTICAL DATUM REFERENCED TO NGVD OF 1929, HORIZONTAL DATUM REFERENCED TO MICHIGAN SPC-NAD 1983.
4. PROPERTY BOUNDARY FOR REALM, INC, DIGITIZED FROM SPICER GROUP DRAWING NO. A-21854-1, DATED 3/27/98.
5. BASE MAP INFORMATION SOUTH OF MAIN REALM, INC. PROPERTY LINE FROM AIR-LAND SURVEYS, INC. PHOTO DATE 11/90, MAPPING DATE 10/91.

LEGEND:

- GM SAGINAW MALLEABLE IRON PLANT PROPERTY LINE (APPROX.)
- REALM, INC. PROPERTY LINE (APPROX.)
- UNPAVED ROAD
- GROUND SURFACE ELEVATION CONTOUR (10 FT INTERVAL)
- FENCE LINE
- SWAMPY AREA
- AREA SUBJECT TO RESTRICTIVE COVENANT THAT LIMITS PROPERTY USE TO INDUSTRIAL AND COMMERCIAL II AND PROHIBITS THE INSTALLATION OF POTABLE WATER SUPPLY WELLS.
- AREA SUBJECT TO RESTRICTIVE COVENANT THAT PLACES RESTRICTIONS ON BUILDING CONSTRUCTION.
- AREA SUBJECT TO RESTRICTIVE COVENANT THAT PROHIBITS THE INSTALLATION OF POTABLE WATER SUPPLY WELLS.
- AREA SUBJECT TO RESTRICTIVE COVENANT THAT PLACES RESTRICTIONS ON INTRUSIVE ACTIVITIES AND PROVIDES FOR THE MAINTENANCE OF CAP OR COVER MATERIALS.
- AREA SUBJECT TO RESTRICTIVE COVENANT THAT PLACES RESTRICTIONS ON INTRUSIVE ACTIVITIES. WORKER DURATION RESTRICTIONS APPLY AS DETAILED IN THE RAP AND PROPOSED RESTRICTIVE CONVENANT.
- AREA SUBJECT TO RESTRICTIVE COVENANT THAT RESTRICTS INTRUSIVE ACTIVITIES AND PROVIDES FOR THE MAINTENANCE OF EXISTING COVER MATERIALS. WORKER DURATION RESTRICTIONS APPLY AS DETAILED IN THE RAP AND PROPOSED RESTRICTIVE CONVENANT.
- AREA SUBJECT TO RESTRICTIVE COVENANT THAT RESTRICTS INTRUSIVE ACTIVITIES, PROHIBITS THE INSTALLATION OF DIRT ROADWAYS AND REQUIRES MAINTENANCE OF 50% OR GREATER VEGETATIVE COVER. WORKER DURATION RESTRICTIONS APPLY AS DETAILED IN THE RAP AND PROPOSED RESTRICTIVE CONVENANT.
- PERMANENT MARKER LOCATION

0 300' 600'
GRAPHIC SCALE

SAGINAW MALLEABLE IRON PLANT PROPERTY,
GREEN POINT LANDFILL, AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN
REMEDIAL ACTION PLAN

AREAS SUBJECT TO PROPOSED RESTRICTIVE COVENANTS

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FIGURE
2-5

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R-2
RO-1
R-2
R-1
R-1A
R-1A

I 27.7 AREA
FORMER RAILYARD AREA
MELTING DEPARTMENT AREA
QUEENS STREET DUMP AREA
CENTER STREET
QUENCH PIT AREA
GM SAGINAW MALLEABLE IRON PLANT
TERMINATED TYPE III LANDFILL
SAGINAW RIVER BOUNDARY
PREVIOUS METAL FEEDSTOCK AREA
FORMER HARDEN QUENCH AND DRAW AREA
DELPHI SAGINAW STEERING SYSTEMS PLANT 2
FORMER UST #7 AREA
PARKING LOT NORTH OF BUFFER BASIN
BUFFER BASIN
STORMWATER POND
SAGINAW RIVER BERM AREA
UNPAVED AREA
LNAPL ASSESSMENT AND REMEDIATION AREA
FORMER PRIMARY SETTLING POND
FORMER SECONDARY SETTLING POND
TERMINATED TYPE III LANDFILL
SAGINAW RIVER
FORMER DRAINAGE WAY
SEDIMENTATION BASIN
TERMINATED GREEN POINT LANDFILL (FINAL COVER)
SEDIMENTATION BASIN
PREVIOUSLY PROPOSED TYPE III LANDFILL
REALM, INC. EASTERN PROPERTY EXTENSION
FORMER HILLOCK AREA
DRUM REMEDIATION AREA
REALM, INC. PROPERTY (PURCHASED 2008)
STATE OF MICHIGAN PROPERTY (PREVIOUSLY RUBIN SCHULTZ PROPERTY)
TITTABAWASEE RIVER
GREEN POINT
SHIAWASSEE RIVER
SHIAWASSEE NATIONAL WILDLIFE REFUGE

LEGEND

- GM SAGINAW MALLEABLE IRON PLANT PROPERTY LINE (APPROX.)
- REALM, INC PROPERTY LINE (APPROX.)
- APPROXIMATE LIMITS OF SITE AREA SUBJECT TO AREA-SPECIFIC REMEDIAL ACTION
- INDUSTRIAL ZONING AREA (GENERAL)
- INDUSTRIAL ZONING AREA (LIGHT)
- **R-1** RESIDENTIAL (1) FAMILY
- **R-2** RESIDENTIAL (2) FAMILY
- **RO-1** RESTRICTED OFFICE
- **R-1A** RESIDENTIAL/AGRICULTURAL

NOTES:

1. THIS PHOTOGRAMMETRIC BASE MAP FOR THE GM SAGINAW MALLEABLE IRON PLANT AND DELPHI SAGINAW STEERING SYSTEMS PLANT 2 PROPERTIES WAS PREPARED BY LOCKWOOD MAPPING, INC. OF ROCHESTER, NEW YORK. AERIAL PHOTOGRAPHY WAS CONDUCTED ON 11/11/94. ORIGINAL LOCKWOOD MAP WAS AT A SCALE OF 1"=100' AND WAS INTERPRETED FOR TWO-FOOT CONTOURS.
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4. PROPERTY BOUNDARY FOR REALM, INC, DIGITIZED FROM SPICER GROUP DRAWING NO. A-21854-1, DATED 3/27/98.
5. BASE MAP INFORMATION SOUTH OF MAIN REALM, INC. PROPERTY LINE FROM AIR-LAND SURVEYS, INC. PHOTO DATE 11/90, MAPPING DATE 10/91.
6. ZONING AREAS ARE BASED ON THE 2002 CITY OF SAGINAW, MICHIGAN ZONING MAP OBTAINED FROM THE CITY OF SAGINAW IN AUGUST 2003.

0 600' 1200'
GRAPHIC SCALE

SAGINAW MALLEABLE IRON PLANT PROPERTY,
GREEN POINT LANDFILL, AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN
REMEDIAL ACTION PLAN

ZONING MAP

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FIGURE
3-1

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APPENDICES

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Appendix A

Data Summary Tables

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Flammability and Explosivity Screening Level (FE)	Groundwater Surface Water Interface (GSI)	Industrial & Commercial II, III & IV Drinking Water Criteria (IDW)	Residential & Commercial I Drinking Water Criteria (RDW)	Residential & Commercial I Groundwater Volatilization to Indoor Air (RGVIA)	Industrial & Commercial II, III & IV Groundwater Volatilization to Indoor Air Inhalation Criteria (IGVIA)	Acute Inhalation Screening Level (GAI)	Groundwater Contact Criteria (GCC)	Water Solubility (WS)
Volatile Organics										
1,1,1,2-Tetrachloroethane	ug/L	{ID}	{ID}	30,000	{ID (X)}	320	96,000	77	15,000	1,100,000
1,1,1-Trichloroethane	ug/L	{ID}	1,300,000 {S}	1,300,000 {S}	200	200 {A}	1,300,000 {S}	200 {A}	660,000	1,330,000
1,1,2,2-Tetrachloroethane	ug/L	{ID}	{ID}	4,700	78 {X}	35	77,000	8.5	12,000	2,970,000
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	{ID}	170,000 {S}	170,000 {S}	32	170,000 {S}	170,000 {S}	170,000 {S}	170,000 {S}	170,000
1,1,2-Trichloroethane	ug/L	{NA}	{ID}	21,000	330 {X}	5 {A}	110,000	5 {A}	17,000	4,420,000
1,1-Dichloroethane	ug/L	380,000	{ID}	2,400,000	740	2,500	2,300,000	880	1,000,000	5,060,000
1,1-Dichloroethene	ug/L	97,000 {I}	140,000 {I}	11,000 {I}	65 {I,X}	7 {I,A}	1,300 {I}	7 {I,A}	200 {I}	2,250,000 {I}
1,1-Dichloropropene	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
1,2,3-Trichlorobenzene	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
1,2,3-Trichloropropane	ug/L	{NA}	{ID}	84,000	{NA}	120	{ID}	42	{ID}	1,900,000
1,2,4-Trichlorobenzene	ug/L	{NA}	300,000 {S}	19,000	30	70 {A}	300,000 {S}	70 {A}	300,000 {S}	300,000
1,2,4-Trimethylbenzene	ug/L	56,000 {I,S}	{ID}	56,000 {I,S}	17 {I}	2,900 {I,E}	56,000 {I,S}	1,000 {I,E}	56,000 {I,S}	55,890 {I}
1,2-Dibromo-3-chloropropane	ug/L	{NA}	{ID}	390	{NA}	0.2 {A}	1,200 {S}	0.2 {A}	1,200 {S}	1,230
1,2-Dibromoethane	ug/L	{ID}	{ID}	25	0.2 {X}	0.05 {A}	15,000	0.05 {A}	2,400	4,200,000
1,2-Dichlorobenzene	ug/L	{NA}	160,000 {S}	160,000 {S}	16	600 {A}	160,000 {S}	600 {A}	160,000 {S}	156,000
1,2-Dichloroethane	ug/L	2,500,000 {I}	{ID}	19,000 {I}	360 {I,X}	5 {I,A}	59,000 {I}	5 {I,A}	9,600 {I}	8,520,000 {I}
1,2-Dichloroethene (total)	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
1,2-Dichloropropane	ug/L	550,000 {I}	2,800,000 {I,S}	16,000 {I}	290 {I,X}	5 {I,A}	36,000 {I}	5 {I,A}	16,000 {I}	2,800,000 {I}
1,3,5-Trimethylbenzene	ug/L	{ID}	{ID}	61,000 {I,S}	45 {I}	2,900 {I,E}	61,000 {I,S}	1,000 {I,E}	61,000 {I,S}	61,150 {I}
1,3-Dichlorobenzene	ug/L	{ID}	{ID}	2,000	38	19	{ID}	6.6	{ID}	111,000
1,3-Dichloropropane	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
1,4-Dichlorobenzene	ug/L	{NA}	{ID}	6,400	13	75 {A}	74,000 {S}	75 {A}	16,000	73,800
1,4-Dioxane	ug/L	140,000,000 {I}	{ID}	1,700,000 {I}	2,800 {I,X}	350 {I}	{NLV}	85 {I}	{NLV}	900,000,000 {I}
2,2-Dichloropropane	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
2-Butanone	ug/L	{ID}	240,000,000 {I,S}	240,000,000 {I,S}	2,200 {I}	38,000 {I}	240,000,000 {I,S}	13,000 {I}	240,000,000 {I,S}	240,000,000 {I}
2-Chloro-1,3-butadiene	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
2-Chloroethylvinylether	ug/L	{ID}	{ID}	{ID}	{NA}	{ID}	{ID}	{ID}	{ID}	15,000,000
2-Chlorotoluene	ug/L	{ID}	{ID}	44,000 {I}	{ID}	420 {I}	370,000 {I,S}	150 {I}	220,000 {I}	373,000 {I}
2-Hexanone	ug/L	{NA}	{ID}	5,200,000	{NA}	2,900	8,700,000	1,000	4,200,000	16,000,000
3-Chloropropene	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
4-Chlorotoluene	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
4-Methyl-2-pentanone	ug/L	{ID}	20,000,000 {I,S}	13,000,000 {I}	{ID}	5,200 {I}	20,000,000 {S}	1,800 {I}	20,000,000 {I,S}	20,000,000 {I}
Acetone	ug/L	15,000,000 {I}	1,000,000,000 {I,D}	31,000,000 {I}	1,700 {I}	2,100 {I}	1,000,000,000 {I,D,S}	730 {I}	1,000,000,000 {I,D,S}	1,000,000,000 {I}
Acetonitrile	ug/L	21,000,000	200,000,000	5,600,000	{NA}	400	45,000,000	140	24,000,000	200,000,000
Acrolein	ug/L	6,700,000 {I}	340,000 {I}	3,400,000 {I}	{NA}	330 {I}	4,200 {I}	120 {I}	2,100 {I}	210,000,000 {I}
Acrylonitrile	ug/L	6,400,000 {I}	{ID}	14,000 {I}	4.9 {I,X}	11 {I}	190,000 {I}	2.6 {I}	34,000 {I}	75,000,000 {I}
Benzene	ug/L	68,000 {I}	67,000 {I}	11,000 {I}	200 {I,X}	5 {I,A}	35,000 {I}	5 {I,A}	5,600 {I}	1,750,000 {I}
Bromobenzene	ug/L	{ID}	{ID}	12,000 {I}	{NA}	50 {I}	390,000 {I}	18 {I}	180,000 {I}	413,000 {I}
Bromochloromethane	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Bromodichloromethane	ug/L	{ID}	{ID}	14,000	{ID}	80 {A,W}	37,000	80 {AW}	4,800	6,740,000
Bromoform	ug/L	{ID}	{ID}	140,000	{ID}	80 {A,W}	3,100,000 {S}	80 {AW}	470,000	3,100,000
Bromomethane	ug/L	{ID}	{ID}	70,000	35	29	9,000	10	4,000	14,500,000
Carbon Disulfide	ug/L	13,000 {I,R}	{ID}	1,200,000 {I,R,S}	{ID}	2,300 {I,R}	550,000 {I,R}	800 {I,R}	250,000 {I,R}	1,190,000 {I,R}
Carbon Tetrachloride	ug/L	{ID}	96,000	4,600	45 {X}	5 {A}	2,400	5 {A}	370	793,000
Chlorobenzene	ug/L	160,000 {I}	{ID}	86,000 {I}	47 {I}	100 {I,A}	470,000 {I,S}	100 {I,A}	210,000 {I}	472,000 {I}

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Flammability and Explosivity Screening Level (FE)	Groundwater Surface Water Interface (GSI)	Industrial & Commercial II, III & IV Drinking Water Criteria (IDW)	Residential & Commercial I Drinking Water Criteria (RDW)	Residential & Commercial I Groundwater Volatilization to Indoor Air (RGVIA)	Industrial & Commercial II, III & IV Groundwater Volatilization to Indoor Air Inhalation Criteria (IGVIA)	Acute Inhalation Screening Level (GAI)	Groundwater Contact Criteria (GCC)	Water Solubility (WS)
Volatile Organics (Cont'd.)										
Chloroethane	ug/L	110,000	{ID}	440,000	{ID}	1,700	5,700,000 {S}	430	5,700,000 {S}	5,740,000
Chloroform	ug/L	{ID}	{ID}	150,000	170 {X}	80 {A,W}	180,000	80 {A,W}	28,000	7,920,000
Chloromethane	ug/L	36,000 {I}	210,000 {I}	490,000 {I}	{ID}	1,100 {I}	45,000 {I}	260 {I}	8,600 {I}	6,340,000 {I}
cis-1,2-Dichloroethene	ug/L	530,000	{ID}	200,000	620	70 {A}	210,000	70 {A}	93,000	3,500,000
cis-1,3-Dichloropropene	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Cyclohexane	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Dibromochloromethane	ug/L	{ID}	{ID}	18,000	{ID}	80 {A,W}	110,000	80 {A,W}	14,000	2,600,000
Dibromomethane	ug/L	{ID}	{ID}	530,000	{NA}	230	{ID}	80	{ID}	11,000,000
Dichlorodifluoromethane	ug/L	{ID}	{ID}	300,000 {S}	{ID}	4,800	300,000 {S}	1,700	220,000	300,000
Ethyl Methacrylate	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Ethylbenzene	ug/L	43,000 {I}	170,000 {I,S}	170,000 {I,S}	18 {I}	700 {I,E}	170,000 {I,S}	700 {I,E}	110,000 {I}	169,000 {I}
Hexachlorobutadiene	ug/L	{ID}	{ID}	400	0.05	42	3,200 {S}	15	1,600	3,230
Iodomethane	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Isobutanol	ug/L	{ID}	{ID}	25,000,000 {I}	{NA}	6,700 {I}	76,000,000 {I,S}	2,300 {I}	76,000,000 {I,S}	76,000,000 {I}
Isopropylbenzene	ug/L	29,000	{ID}	56,000 {S}	{ID}	2,300	56,000 {S}	800	56,000 {S}	56,000
m&p-Xylene	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Methacrylonitrile	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Methyl acetate	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Methyl cyclohexane	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Methyl Methacrylate	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Methyl tert-butyl ether	ug/L	{ID}	{ID}	610,000	730 {X}	690 {E}	47,000,000 {S}	240 {E}	47,000,000 {S}	46,800,000
Methylene Chloride	ug/L	{ID}	{ID}	220,000	940 {X}	5 {A}	1,400,000	5 {A}	220,000	17,000,000
Naphthalene	ug/L	{NA}	31,000 {S}	31,000 {S}	13	1,500	31,000 {S}	520	31,000 {S}	31,000
n-Butylbenzene	ug/L	{ID}	{ID}	5,900	{ID}	230	{ID}	80	{ID}	{NA}
n-Propylbenzene	ug/L	{ID}	{ID}	15,000 {I}	{ID}	230 {I}	{ID}	80 {I}	{ID}	{NA}
o-Xylene	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
p-Isopropyltoluene	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Propionitrile	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
sec-Butylbenzene	ug/L	{ID}	{ID}	4,400	{ID}	230	{ID}	80	{ID}	{NA}
Styrene	ug/L	140,000	310,000 {S}	9,700	80	100 {A}	310,000 {S}	100 {A}	170,000	310,000
tert-Butylbenzene	ug/L	{ID}	{ID}	8,900 {I}	{ID}	230 {I}	{ID}	80 {I}	{ID}	{NA}
Tetrachloroethene	ug/L	{ID}	200,000 {S}	12,000	45 {X}	5 {A}	170,000	5 {A}	25,000	200,000
Toluene	ug/L	61,000 {I}	{ID}	530,000 {I,S}	140 {I}	1,000 {I,E}	530,000 {I,S}	1,000 {I,E}	530,000 {I,S}	526,000 {I}
trans-1,2-Dichloroethene	ug/L	230,000	{ID}	220,000	1,500	100 {A}	200,000	100 {A}	85,000	6,300,000
trans-1,3-Dichloropropene	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
trans-1,4-Dichloro-2-butene	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Trichloroethene	ug/L	{ID}	1,100,000 {S}	22,000	200 {X}	5 {A}	97,000	5 {A}	15,000	1,100,000
Trichlorofluoromethane	ug/L	{ID}	1,100,000 {S}	1,100,000 {S}	{NA}	7,300	1,100,000 {S}	2,600	1,100,000 {S}	1,100,000
Vinyl Acetate	ug/L	1,800,000 {I}	4,800,000 {I}	8,000,000 {I}	{NA}	1,800 {I}	8,900,000 {I}	640 {I}	4,100,000 {I}	20,000,000 {I}
Vinyl Chloride	ug/L	33,000	{ID}	1,000	15	2 {A}	13,000	2 {A}	1,100	2,760,000
Total 1,3-Dichloropropenes	ug/L	130,000	{ID}	5,500	{NA}	35	26,000	8.5	3,900	2,800,000
Total Xylenes	ug/L	70,000 {I}	190,000 {I,S}	190,000 {I,S}	35 {I}	10,000 {I,E}	190,000 {I,S}	10,000 {I,E}	190,000 {I,S}	186,000 {I}

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Semivolatile Organics										
1,2,4,5-Tetrachlorobenzene	ug/L	{ID}	{ID}	1,300 {S}	2.9 {X}	1,300 {S}	{ID}	1,300 {S}	{ID}	1,300
1,2,4-Trichlorobenzene	ug/L	{NA}	300,000 {S}	19,000	30	70 {A}	300,000 {S}	70 {A}	300,000 {S}	300,000
1,2,4-Trimethylbenzene	ug/L	56,000 {I,S}	{ID}	56,000 {I,S}	17 {I}	2,900 {I,E}	56,000 {I,S}	1,000 {I,E}	56,000 {I,S}	55,890 {I}
1,2-Dichlorobenzene	ug/L	{NA}	160,000 {S}	160,000 {S}	16	600 {A}	160,000 {S}	600 {A}	160,000 {S}	156,000
1,3,5-Trimethylbenzene	ug/L	{ID}	{ID}	61,000 {I,S}	45 {I}	2,900 {I,E}	61,000 {I,S}	1,000 {I,E}	61,000 {I,S}	61,150 {I}
1,3,5-Trinitrobenzene	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
1,3-Dichlorobenzene	ug/L	{ID}	{ID}	2,000	38	19	{ID}	6.6	{ID}	111,000
1,3-Dinitrobenzene	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
1,4-Dichlorobenzene	ug/L	{NA}	{ID}	6,400	13	75 {A}	74,000 {S}	75 {A}	16,000	73,800
1,4-Naphthoquinone	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
1-Naphthylamine	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
2,3,4,6-Tetrachlorophenol	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
2,4,5-Trichlorophenol	ug/L	{ID}	{ID}	170,000	{NA}	2,100	{NLV}	730	{NLV}	1,200,000
2,4,6-Trichlorophenol	ug/L	{ID}	{ID}	10,000	4.4	470	{NLV}	120	{NLV}	800,000
2,4-Dichlorophenol	ug/L	{ID}	{ID}	48,000	19	210	{NLV}	73	{NLV}	4,500,000
2,4-Dimethylphenol	ug/L	{ID}	{ID}	520,000	380	1,000	{NLV}	370	{NLV}	7,870,000
2,4-Dinitrophenol	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
2,4-Dinitrotoluene	ug/L	{ID}	{ID}	8,600	{NA}	32	{NLV}	7.7	{NLV}	270,000
2,6-Dichlorophenol	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
2,6-Dinitrotoluene	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
2-Acetylaminofluorene	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
2-Chloronaphthalene	ug/L	{ID}	{ID}	6,700 {S}	{NA}	5,200	{ID}	1,800	{ID}	6,740
2-Chlorophenol	ug/L	{ID}	{ID}	94,000	22	130	{ID}	45	{ID}	22,000,000
2-Methylnaphthalene	ug/L	{ID}	{ID}	25,000 {S}	{ID}	750	{ID}	260	{ID}	24,600
2-Methylphenol	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
2-Naphthylamine	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
2-Nitroaniline	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
2-Nitrophenol	ug/L	{ID}	{ID}	79,000	{ID}	58	{NLV}	20	{NLV}	2,500,000
2-Picoline	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
3&4-Methylphenol	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
3,3'-Dichlorobenzidine	ug/L	{ID}	{ID}	180	0.3 {X}	4.3	{NLV}	1.1	{NLV}	3,110
3,3'-Dimethylbenzidine	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
3-Methylcholanthrene	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
3-Methylphenol	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
3-Nitroaniline	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
4,6-Dinitro-2-methylphenol	ug/L	{ID}	{ID}	9,500	{NA}	20 {M}	{NLV}	20 {M}	{NLV}	200,000
4-Aminobiphenyl	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
4-Bromophenyl-phenylether	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
4-Chloro-3-Methylphenol	ug/L	{ID}	{ID}	79,000	7.4	420	{NLV}	150	{NLV}	3,900,000
4-Chloroaniline	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
4-Chlorobenzilate	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
4-Chlorophenyl-phenylether	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
4-Methylphenol	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -

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Semivolatile Organics (Cont'd.)										
4-Nitroaniline	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
4-Nitrophenol	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
4-Nitroquinoline-1-oxide	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
4-Phenylenediamine	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
5-Nitro-o-toluidine	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
7,12-Dimethylbenz(a)anthracene	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
a,a'-Dimethylphenethylamine	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Acenaphthene	ug/L	{ID}	{ID}	4,200 {S}	19	3,800	4,200 {S}	1,300	4,200 {S}	4,240
Acenaphthylene	ug/L	{ID}	{ID}	3,900 {S}	{ID}	150	3,900 {S}	52	3,900 {S}	3,930
Acetophenone	ug/L	{ID}	{ID}	6,100,000 {S}	{ID}	4,400	6,100,000 {S}	1,500	6,100,000 {S}	6,100,000
Aniline	ug/L	{NA}	{ID}	140,000	4	220	{NLV}	53	{NLV}	36,000,000
Anthracene	ug/L	{ID}	{ID}	43 {S}	{ID}	43 {S}	43 {S}	43 {S}	43 {S}	43.4
Atrazine	ug/L	{ID}	{ID}	5,400	7.3 {X}	3 {A}	{NLV}	3 {A}	{NLV}	70,000
Benzaldehyde	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Benzo(a)anthracene	ug/L	{ID}	{ID}	9.4 {Q,S,AA}	{ID}	8.5 {Q}	{NLV}	2.1 {Q}	{NLV}	9.4 {Q}
Benzo(a)pyrene	ug/L	{ID}	{ID}	1 {Q,M,AA}	{ID}	5 {Q,A}	{NLV}	5 {Q,A}	{NLV}	1.62 {Q}
Benzo(b)fluoranthene	ug/L	{ID}	{ID}	1.5 {Q,S,AA}	{ID}	1.5 {Q,S,AA}	{ID}	1.5 {Q,S,AA}	{ID}	1.5 {Q}
Benzo(g,h,i)perylene	ug/L	{ID}	{ID}	1 {M,A,A}	{NA}	1 {M}	{NLV}	1 {M}	{NLV}	0.26
Benzo(k)fluoranthene	ug/L	{ID}	{ID}	1 {Q,M,AA}	{NA}	1 {Q,M}	{NLV}	1 {Q}	{NLV}	0.8 {Q}
Benzyl Alcohol	ug/L	{ID}	{ID}	44,000,000 {S}	{NA}	29,000	{NLV}	10,000	{NLV}	44,000,000
Biphenyl	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
bis(2-Chloroethoxy)methane	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
bis(2-Chloroethyl)ether	ug/L	17,000,000 {I,S}	17,000,000 {I,S}	5,700 {I}	15 {I,X}	8.3 {I}	210,000 {I}	2 {I}	38,000 {I}	17,200,000 {I}
bis(2-Ethylhexyl)phthalate	ug/L	{NA}	340 {S}	320 {AA}	32	6 {A}	{NLV}	6 {A}	{NLV}	340
Butylbenzylphthalate	ug/L	{ID}	{ID}	2,700 {S}	14 {X}	2,700 {S}	{NLV}	1,200	{NLV}	2,690
Caprolactam	ug/L	{NA}	1,000,000,000 {D}	390,000,000	{NA}	17,000	{NLV}	5,800	{NLV}	5,250,000,000
Carbazole	ug/L	{ID}	{ID}	7,400	10 {M}	350	{NLV}	85	{NLV}	7,480
Chrysene	ug/L	{ID}	{ID}	1.6 {Q,S,AA}	{ID}	1.6 {Q,S}	{ID}	1.6 {S,Q}	{ID}	1.6 {Q}
Diallate	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Dibenzo(a,h)anthracene	ug/L	{ID}	{ID}	2 {Q,M,AA}	{ID}	2 {Q,M}	{NLV}	2 {Q,M}	{NLV}	2.49 {Q}
Dibenzofuran	ug/L	{ID}	{ID}	{ID}	4	{ID}	{ID}	{ID}	{ID}	10,000
Diethylphthalate	ug/L	{NA}	{ID}	1,100,000 {S}	110	16,000	{NLV}	5,500	{NLV}	1,080,000
Dimethylphthalate	ug/L	{NA}	{ID}	4,200,000 {S}	{NA}	210,000	{NLV}	73,000	{NLV}	4,190,000
Di-n-Butylphthalate	ug/L	{NA}	{ID}	11,000 {S}	9.7	2,500	{NLV}	880	{NLV}	11,200
Di-n-Octylphthalate	ug/L	{ID}	{ID}	400	{ID}	380	{NLV}	130	{NLV}	3,000
Diphenylamine	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Ethyl Methanesulfonate	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Fluoranthene	ug/L	{ID}	{ID}	210 {S}	1.6	210 {S}	210 {S}	210 {S}	210 {S}	206
Fluorene	ug/L	{ID}	{ID}	2,000 {S}	12	2,000 {S}	2,000 {S}	880	2,000 {S}	1,980
Hexachlorobenzene	ug/L	{ID}	{ID}	4.6	0.2 {M}	1 {A}	3,000	1 {A}	440	6,200
Hexachlorobutadiene	ug/L	{ID}	{ID}	400	0.05	42	3,200 {S}	15	1,600	3,230
Hexachlorocyclopentadiene	ug/L	{ID}	{ID}	1,600	{ID}	50 {A}	420	50 {A}	130	1,800
Hexachloroethane	ug/L	{ID}	{ID}	1,900	6.7 {X}	21	50,000 {S}	7.3	27,000	50,000
Hexachloropropene	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Indeno(1,2,3-cd)pyrene	ug/L	{ID}	{ID}	2 {Q,M,AA}	{ID}	2 {Q,M}	{NLV}	2 {Q,M}	{NLV}	0.022 {Q}

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Flammability and Explosivity Screening Level (FE)	Groundwater Surface Water Interface (GSI)	Industrial & Commercial II, III & IV Drinking Water Criteria (IDW)	Residential & Commercial I Drinking Water Criteria (RDW)	Residential & Commercial I Groundwater Volatilization to Indoor Air (RGVIA)	Industrial & Commercial II, III & IV Groundwater Volatilization to Indoor Air Inhalation Criteria (IGVIA)	Acute Inhalation Screening Level (GAI)	Groundwater Contact Criteria (GCC)	Water Solubility (WS)
Semivolatile Organics (Cont'd.)										
Isophorone	ug/L	{ID}	12,000,000 {S}	990,000	570 {X}	3,100	{NLV}	770	{NLV}	12,000,000
Isosafrole	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Methapyrilene	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Methyl Methanesulfonate	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Naphthalene	ug/L	{NA}	31,000 {S}	31,000 {S}	13	1,500	31,000 {S}	520	31,000 {S}	31,000
Nitrobenzene	ug/L	{NA}	{ID}	11,000 {I}	180 {I,X}	9.6 {I}	550,000 {I}	3.4 {I}	280,000 {I}	2,090,000 {I}
N-Nitrosodiethylamine	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
N-Nitrosodimethylamine	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
N-Nitroso-di-n-butylamine	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
N-Nitroso-di-n-propylamine	ug/L	{ID}	{ID}	360	{NA}	5 {M}	{NLV}	5 {M}	{NLV}	9,890,000
N-Nitrosodiphenylamine	ug/L	{ID}	{ID}	35,000 {S}	{NA}	1,100	{NLV}	270	{NLV}	35,100
N-Nitrosomethylethylamine	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
N-Nitrosomorpholine	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
N-Nitrosopiperidine	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
N-Nitrosopyrrolidine	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
o-Toluidine	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
p-Dimethylaminoazobenzene	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Pentachlorobenzene	ug/L	{ID}	{ID}	240	5 {M}	17	{ID}	6.1	{ID}	650
Pentachloroethane	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Pentachloronitrobenzene	ug/L	{ID}	{ID}	32 {S}	{NA}	32 {S}	32 {S}	32 {S}	32 {S}	32
Pentachlorophenol	ug/L	{ID}	{ID}	200	2.8 {G,X}	1 {A}	{NLV}	1 {A}	{NLV}	1,850,000
Phenacetin	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Phenanthrene	ug/L	{ID}	{ID}	1,000 {S}	2.4	150	1,000 {S}	52	1,000 {S}	1,000
Phenol	ug/L	{NA}	{ID}	29,000,000	210	13,000	{NLV}	4,400	{NLV}	82,800,000
Pronamide	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Pyrene	ug/L	{ID}	{ID}	140 {S}	{ID}	140 {S}	140 {S}	140 {S}	140 {S}	135
Pyridine	ug/L	81,000 {I}	{ID}	94,000 {I}	{NA}	21 {I}	12,000 {I}	20 {I}	5,500 {I}	300,000 {I}
Safrole	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Total Methylphenols	ug/L	{NA}	{ID}	810,000 {J}	71 {J}	1,000 {J}	{NLV}	370 {J}	{NLV}	28,000,000 {J}
PCBs										
Aroclor-1016	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Aroclor-1221	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Aroclor-1232	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Aroclor-1242	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Aroclor-1248	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Aroclor-1254	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Aroclor-1260	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Aroclor-1262	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Aroclor-1268 (PCB-1268)	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Total PCBs	ug/L	{ID}	{ID}	3.3 {J,T,AA}	0.2 {J,T,M}	0.5 {J,T,A}	45 {J,T,S}	0.5 {J,T,A}	45 {J,T,S}	44.7 {J,T}
PCBs-Dissolved										
Aroclor-1016 (Dissolved)	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Aroclor-1221 (Dissolved)	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Aroclor-1232 (Dissolved)	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Aroclor-1242 (Dissolved)	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -

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SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Flammability and Explosivity Screening Level (FE)	Groundwater Surface Water Interface (GSI)	Industrial & Commercial II, III & IV Drinking Water Criteria (IDW)	Residential & Commercial I Drinking Water Criteria (RDW)	Residential & Commercial I Groundwater Volatilization to Indoor Air (RGVIA)	Industrial & Commercial II, III & IV Groundwater Volatilization to Indoor Air Inhalation Criteria (IGVIA)	Acute Inhalation Screening Level (GAI)	Groundwater Contact Criteria (GCC)	Water Solubility (WS)
PCBs-Dissolved (Cont'd.)										
Aroclor-1248 (Dissolved)	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Aroclor-1254 (Dissolved)	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Aroclor-1260 (Dissolved)	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Aroclor-1262 (Dissolved)	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Aroclor-1268 (Dissolved)	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Total PCBs (Dissolved)	ug/L	{ID}	{ID}	3.3 {J,T,AA}	0.2 {J,T,M}	0.5 {J,T,A}	45 {J,T,S}	0.5 {J,T,A}	45 {J,T,S}	44.7 {J,T}
Organochlorine Pesticides										
4,4'-DDD	ug/L	{ID}	{ID}	44 {AA}	{NA}	37	{NLV}	9.1	{NLV}	90
4,4'-DDE	ug/L	{ID}	{ID}	27 {AA}	{NA}	15	{NLV}	4.3	{NLV}	120
4,4'-DDT	ug/L	{NA}	{ID}	13 {AA}	0.02 {M}	10	{NLV}	3.6	{NLV}	25
Aldrin	ug/L	{ID}	{ID}	0.34 {AA}	0.01 {M,X}	0.4	180 {S}	0.098	180 {S}	180
Alpha-BHC	ug/L	{ID}	{ID}	60	{NA}	1.7	2,000 {S}	0.43	2,000 {S}	2,000
Alpha-Chlordane	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Aroclor-1016	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Aroclor-1221	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Aroclor-1232	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Aroclor-1242	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Aroclor-1248	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Aroclor-1254	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Aroclor-1260	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Aroclor-1262	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Aroclor-1268 (PCB-1268)	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Beta-BHC	ug/L	{ID}	{ID}	120	{ID}	3.6	{NLV}	0.88	{NLV}	240
Delta-BHC	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Dieldrin	ug/L	{ID}	{ID}	2.4 {AA}	0.02 {M}	0.43	200 {S}	0.11	200 {S}	195
Endosulfan I	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Endosulfan II	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Endosulfan Sulfate	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Endrin	ug/L	{ID}	{ID}	160 {AA}	{NA}	2 {A}	{NLV}	2 {A}	{NLV}	250
Endrin Aldehyde	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Endrin Ketone	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Gamma-BHC (Lindane)	ug/L	{ID}	{ID}	190	0.03	0.2 {A}	{ID}	0.2 {A}	{ID}	6,800
Gamma-Chlordane	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Heptachlor	ug/L	{ID}	{ID}	2.9 {AA}	0.01 {M,X}	0.4 {A}	180 {S}	0.4 {A}	180 {S}	180
Heptachlor Epoxide	ug/L	{ID}	{ID}	9 {AA}	{ID}	0.2 {A}	{NLV}	0.2 {A}	{NLV}	200
Isodrin	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Kepone	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Methoxychlor	ug/L	{ID}	{ID}	45 {S}	{NA}	40 {A}	{ID}	40 {A}	{ID}	45
Toxaphene	ug/L	{ID}	740 {S}	44	1 {M}	3 {A}	{NLV}	3 {A}	{NLV}	740
Organophosphate Pesticides										
4,4'-DDD	ug/L	{ID}	{ID}	44 {AA}	{NA}	37	{NLV}	9.1	{NLV}	90
4,4'-DDE	ug/L	{ID}	{ID}	27 {AA}	{NA}	15	{NLV}	4.3	{NLV}	120
4,4'-DDT	ug/L	{NA}	{ID}	13 {AA}	0.02 {M}	10	{NLV}	3.6	{NLV}	25
Aldrin	ug/L	{ID}	{ID}	0.34 {AA}	0.01 {M,X}	0.4	180 {S}	0.098	180 {S}	180
Alpha-BHC	ug/L	{ID}	{ID}	60	{NA}	1.7	2,000 {S}	0.43	2,000 {S}	2,000

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Organophosphate Pesticides (Cont'd.)										
Alpha-Chlordane	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Beta-BHC	ug/L	{ID}	{ID}	120	{ID}	3.6	{NLV}	0.88	{NLV}	240
Delta-BHC	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Dieldrin	ug/L	{ID}	{ID}	2.4 {AA}	0.02 {M}	0.43	200 {S}	0.11	200 {S}	195
Dimethoate	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Disulfoton	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Endosulfan I	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Endosulfan II	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Endosulfan Sulfate	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Endrin	ug/L	{ID}	{ID}	160 {AA}	{NA}	2 {A}	{NLV}	2 {A}	{NLV}	250
Endrin Aldehyde	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Endrin Ketone	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Ethyl Parathion	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Famphur	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Gamma-BHC (Lindane)	ug/L	{ID}	{ID}	190	0.03	0.2 {A}	{ID}	0.2 {A}	{ID}	6,800
Gamma-Chlordane	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Heptachlor	ug/L	{ID}	{ID}	2.9 {AA}	0.01 {M,X}	0.4 {A}	180 {S}	0.4 {A}	180 {S}	180
Heptachlor Epoxide	ug/L	{ID}	{ID}	9 {AA}	{ID}	0.2 {A}	{NLV}	0.2 {A}	{NLV}	200
Methoxychlor	ug/L	{ID}	{ID}	45 {S}	{NA}	40 {A}	{ID}	40 {A}	{ID}	45
Methyl Parathion	ug/L	{ID}	{ID}	3,000	{NA}	5.2	{NLV}	1.8	{NLV}	50,000
o,o,o-Triethylphosphorothioate	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Phorate	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Sulfotep	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Thionazin	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Toxaphene	ug/L	{ID}	740 {S}	44	1 {M}	3 {A}	{NLV}	3 {A}	{NLV}	740
Herbicides										
2,4,5-T	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
2,4,5-TP	ug/L	{ID}	{ID}	43,000	30	50 {A}	{NLV}	50 {A}	{NLV}	140,000
2,4-D	ug/L	{ID}	{ID}	120,000	220	70 {A}	{NLV}	70 {A}	{NLV}	680,000
Dinoseb	ug/L	{ID}	{ID}	7,000	1 {M}	7 {A}	{NLV}	7 {A}	{NLV}	52,000
Dioxins/Furans										
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
1,2,3,4,6,7,8-HpCDD	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
1,2,3,4,6,7,8-HpCDF	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
1,2,3,4,7,8,9-HpCDF	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
1,2,3,4,7,8-HxCDD	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
1,2,3,4,7,8-HxCDF	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
1,2,3,6,7,8-HxCDD	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
1,2,3,6,7,8-HxCDF	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
1,2,3,7,8,9-HxCDD	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
1,2,3,7,8,9-HxCDF	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
1,2,3,7,8-PeCDD	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
1,2,3,7,8-PeCDF	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
2,3,4,6,7,8-HxCDF	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Flammability and Explosivity Screening Level (FE)	Groundwater Surface Water Interface (GSI)	Industrial & Commercial II, III & IV Drinking Water Criteria (IDW)	Residential & Commercial I Drinking Water Criteria (RDW)	Residential & Commercial I Groundwater Volatilization to Indoor Air (RGVIA)	Industrial & Commercial II, III & IV Groundwater Volatilization to Indoor Air Inhalation Criteria (IGVIA)	Acute Inhalation Screening Level (GAI)	Groundwater Contact Criteria (GCC)	Water Solubility (WS)
Dioxins/Furans (Cont'd.)										
2,3,4,7,8-PeCDF	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
2,3,7,8-TCDD	ug/L	{ID}	{ID}	0.00001 {M,O,AA}	0.00001 {O,M}	0.00003 {O,A}	{NLV}	0.00003 {O,A}	{NLV}	0.019 {O}
2,3,7,8-TCDF	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Total Heptachlorodibenzofuran (HpCDF)	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Total Hexachlorodibenzofuran (HxCDF)	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Total Pentachlorodibenzofuran (PeCDF)	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Total Tetrachlorodibenzofuran (TCDF)	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -
2,3,7,8-TCDD (TEQ)	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Center Street Area MW-4 2 - 12 07/29/95	Center Street Area MW-4 2 - 12 06/10/96	Center Street Area MW-4 2 - 12 05/18/00	Center Street Area MW-101WT 13 - 23 07/28/95	Center Street Area MW-101WT 13 - 23 06/05/96	Center Street Area MW-102S1 27 - 32 07/25/95	Center Street Area MW-102WT 9 - 19 07/25/95	Center Street Area MW-103S1 32.5 - 37.5 07/12/95
Volatile Organics									
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ
1,2-Dichloroethene (total)	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	50 U	50 U	NA	50 UJ	50 U	50 U	50 U	50 UJ
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	50 U	50 U	NA	50 U	50 U	R	50 U	50 U
3-Chloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U	50 U	NA	50 U	50 U	50 U	50 U	50 U
Acetone	ug/L	34 J	48 J	NA	50 UJ	100 U	50 U	50 U	50 UJ
Acetonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	1.0 U	5.0 U	NA	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	ug/L	1.0 U	1.0 UJ	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Disulfide	ug/L	50 U	50 U	NA	50 U	50 U	50 U	50 U	50 U
Carbon Tetrachloride	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

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TABLE A-1
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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
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SAGINAW, MICHIGAN

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Volatile Organics (Cont'd.)									
Chloroethane	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	1.0 U	5.0 U	NA	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.2 U	1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 UJ	1.0 UJ	1.0 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total 1,3-Dichloropropenes	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total Xylenes	ug/L	3.0 U	3.0 U	NA	3.0 U	3.0 U	3.0 U	2.5 U	3.0 U

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Semivolatile Organics									
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	1.0 U	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	1.0 U	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	1.0 U	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	50 U	50 U	5.0 U	50 U	50 U	50 U	50 U	50 U
2,4,6-Trichlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dichlorophenol	ug/L	5.0 U	5.0 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dimethylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dinitrophenol	ug/L	20 UJ	20 U	20 U	20 U	20 U	20 U	20 U	20 U
2,4-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Chlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Methylnaphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
2-Nitrophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Picoline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
4,6-Dinitro-2-methylphenol	ug/L	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloro-3-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloroaniline	ug/L	20 U	20 U	10 U	20 U	20 U	20 U	20 U	20 U
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

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Semivolatile Organics (Cont'd.)									
4-Nitroaniline	ug/L	20 UJ	20 U	20 U	20 U	20 U	20 U	20 U	20 U
4-Nitrophenol	ug/L	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acenaphthylene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(a)pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(b)fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(g,h,i)perylene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U
Benzo(k)fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Chloroethyl)ether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Ethylhexyl)phthalate	ug/L	23	5.0 U	5.0 U	0.98 J	5.0 U	5.0 U	5.0 U	6.0
Butylbenzylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Diallate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U
Dibenzofuran	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Diethylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dimethylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Di-n-Butylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Di-n-Octylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Diphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Fluorene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ
Hexachlorobutadiene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorocyclopentadiene	ug/L	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachloroethane	ug/L	5.0 U	2.0 U	5.0 U	5.0 U	2.0 U	5.0 U	5.0 U	5.0 U
Hexachloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U

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TABLE A-1
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GENERAL MOTORS CORPORATION
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SAGINAW, MICHIGAN

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Semivolatile Organics (Cont'd.)									
Isophorone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Isosafrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Nitrobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosodiphenylamine	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	25 U	25 U	1.0 U	25 U	25 U	25 U	25 U	20 U
Phenacetin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Phenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Pronamide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
PCBs									
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
PCBs-Dissolved									
Aroclor-1016 (Dissolved)	ug/L	NA	0.2 UJ	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1221 (Dissolved)	ug/L	NA	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1232 (Dissolved)	ug/L	NA	0.4 U	NA	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Aroclor-1242 (Dissolved)	ug/L	NA	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U

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SAGINAW, MICHIGAN

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PCBs-Dissolved (Cont'd.)									
Aroclor-1248 (Dissolved)	ug/L	NA	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1254 (Dissolved)	ug/L	NA	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1260 (Dissolved)	ug/L	NA	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	0.4 U	NA	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Organochlorine Pesticides									
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	0.31 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1221	ug/L	0.31 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1232	ug/L	0.62 U	0.4 U	NA	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Aroclor-1242	ug/L	0.31 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1248	ug/L	0.31 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1254	ug/L	0.31 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1260	ug/L	0.31 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Organophosphate Pesticides									
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

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Organophosphate Pesticides (Cont'd.)									
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides									
2,4,5-T	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans									
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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Dioxins/Furans (Cont'd.)									
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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Volatile Organics									
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	5.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	NA	NA	1.0 UJ	1.0 UJ	1.0 U	1.0 UJ	1.0 UJ	1.0 UJ
1,2-Dichloroethene (total)	ug/L	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	5.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	5.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	NA	NA	50 UJ	50 UJ	50 U	50 UJ	50 UJ	50 UJ
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	NA	NA	50 U	50 U	50 U	50 U	50 U	50 U
3-Chloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	NA	NA	50 U	50 U	50 U	50 U	50 U	50 U
Acetone	ug/L	NA	NA	50 UJ	50 UJ	100 U	50 UJ	50 UJ	50 UJ
Acetonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	NA	NA	1.0 U	3.1	2.8 J	1.0 U	1.0 U	1.0 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	ug/L	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Disulfide	ug/L	NA	NA	50 U	50 U	50 U	50 U	50 U	50 U
Carbon Tetrachloride	ug/L	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Center Street Area MW-103S1 32.5 - 37.5 06/04/96	Center Street Area MW-103S1 32.5 - 37.5 05/18/00	Center Street Area MW-103S2 47.5 - 52.5 07/12/95	Center Street Area MW-103WT 8 - 18 07/12/95	Center Street Area MW-103WT 8 - 18 06/04/96	Center Street Area MW-104S1 33 - 38 07/12/95	Center Street Area MW-104S2 45 - 50 07/12/95	Center Street Area MW-104WT 7 - 17 07/12/95
Volatile Organics (Cont'd.)									
Chloroethane	ug/L	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	ug/L	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	ug/L	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	NA	NA	1.0 U	0.60 J	0.42 J	1.0 U	1.0 U	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	NA	NA	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	ug/L	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total 1,3-Dichloropropenes	ug/L	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total Xylenes	ug/L	NA	NA	3.0 U	4.7	3.1	3.0 U	3.0 U	3.0 U

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Semivolatile Organics									
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	1.0 U	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	1.0 U	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	1.0 U	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	50 U	5.0 U	50 U	50 U	NA	50 U	50 U	50 U
2,4,6-Trichlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
2,4-Dichlorophenol	ug/L	5.0 U	10 U	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
2,4-Dimethylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
2,4-Dinitrophenol	ug/L	20 U	20 U	20 U	20 U	NA	20 U	20 U	20 U
2,4-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
2-Chlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
2-Methylnaphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
2-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	20 U	20 U	20 U	20 U	NA	20 U	20 U	20 U
2-Nitrophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
2-Picoline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	20 U	20 U	20 U	20 UJ	NA	20 U	20 U	20 UJ
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	20 U	20 U	20 U	20 U	NA	20 U	20 U	20 U
4,6-Dinitro-2-methylphenol	ug/L	20 U	20 U	20 U	20 U	NA	20 U	20 U	20 U
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
4-Chloro-3-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
4-Chloroaniline	ug/L	20 U	10 U	20 U	20 U	NA	20 U	20 U	20 U
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
4-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U

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ORGANIC COMPOUNDS

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SAGINAW, MICHIGAN

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Semivolatile Organics (Cont'd.)									
4-Nitroaniline	ug/L	20 U	20 U	20 U	20 U	NA	20 U	20 U	20 U
4-Nitrophenol	ug/L	20 U	20 U	20 U	20 U	NA	20 U	20 U	20 U
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
Acenaphthylene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ	NA	5.0 U	5.0 U	5.0 UJ
Benzo(a)pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ	NA	5.0 U	5.0 U	5.0 U
Benzo(b)fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ	NA	5.0 U	5.0 U	5.0 U
Benzo(g,h,i)perylene	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ	NA	5.0 U	5.0 U	5.0 U
Benzo(k)fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ	NA	5.0 U	5.0 U	5.0 U
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
bis(2-Chloroethyl)ether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
bis(2-Ethylhexyl)phthalate	ug/L	5.0 U	5.0 U	5.0 U	0.60 J	NA	5.0 U	0.80 J	0.80 J
Butylbenzylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ	NA	5.0 U	5.0 U	5.0 UJ
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	10 U	10 U	10 U	10 U	NA	10 U	10 U	10 U
Chrysene	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ	NA	5.0 U	5.0 U	5.0 UJ
Diallate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ	NA	5.0 U	5.0 U	5.0 U
Dibenzofuran	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
Diethylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.0 U	5.0 U	0.50 J
Dimethylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
Di-n-Butylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
Di-n-Octylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ	NA	5.0 U	5.0 U	5.0 U
Diphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
Fluorene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
Hexachlorobenzene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	NA	5.0 UJ	5.0 UJ	5.0 UJ
Hexachlorobutadiene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
Hexachlorocyclopentadiene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
Hexachloroethane	ug/L	2.0 U	5.0 U	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
Hexachloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ	NA	5.0 U	5.0 U	5.0 U

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Semivolatile Organics (Cont'd.)									
Isophorone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
Isosafrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
Nitrobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
N-Nitrosodiphenylamine	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	25 U	1.0 U	20 U	20 U	NA	20 U	20 U	20 U
Phenacetin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
Phenol	ug/L	5.0 U	5.0 U	0.60 J	5.0 U	NA	2.4 J	1.1 J	5.0 U
Pronamide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ	NA	5.0 U	5.0 U	5.0 UJ
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
PCBs									
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
PCBs-Dissolved									
Aroclor-1016 (Dissolved)	ug/L	NA	NA	0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U
Aroclor-1221 (Dissolved)	ug/L	NA	NA	0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U
Aroclor-1232 (Dissolved)	ug/L	NA	NA	0.4 U	0.4 U	NA	0.4 U	0.4 U	0.4 U
Aroclor-1242 (Dissolved)	ug/L	NA	NA	0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U

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TABLE A-1
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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

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PCBs-Dissolved (Cont'd.)									
Aroclor-1248 (Dissolved)	ug/L	NA	NA	0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U
Aroclor-1254 (Dissolved)	ug/L	NA	NA	0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U
Aroclor-1260 (Dissolved)	ug/L	NA	NA	0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	0.4 U	0.4 U	NA	0.4 U	0.4 U	0.4 U
Organochlorine Pesticides									
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	NA	NA	0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U
Aroclor-1221	ug/L	NA	NA	0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U
Aroclor-1232	ug/L	NA	NA	0.4 U	0.4 U	NA	0.4 U	0.4 U	0.4 U
Aroclor-1242	ug/L	NA	NA	0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U
Aroclor-1248	ug/L	NA	NA	0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U
Aroclor-1254	ug/L	NA	NA	0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U
Aroclor-1260	ug/L	NA	NA	0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Organophosphate Pesticides									
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

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Organophosphate Pesticides (Cont'd.)									
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides									
2,4,5-T	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans									
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

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Dioxins/Furans (Cont'd.)									
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

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Volatile Organics									
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	1.0 UJ	1.0 UJ	1.0 UJ	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U
1,2-Dichloroethene (total)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	50 UJ	50 UJ	50 UJ	50 U	50 U	50 UJ	50 UJ	50 UJ
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	50 U	50 U	50 U	50 UJ	50 UJ	50 U	50 UJ	50 UJ
3-Chloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U	50 U	50 U	50 U	50 U	50 U	50 UJ	50 UJ
Acetone	ug/L	50 UJ	50 UJ	50 UJ	50 U	50 U	50 UJ	50 UJ	50 UJ
Acetonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Disulfide	ug/L	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Carbon Tetrachloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

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Volatile Organics (Cont'd.)									
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 UJ
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total 1,3-Dichloropropenes	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total Xylenes	ug/L	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Center Street Area MW-105S1 36.5 - 41.5 07/12/95	Center Street Area MW-105S2 43 - 48 07/12/95	Center Street Area MW-105WT 5 - 15 07/12/95	Center Street Area MW-106S1 16.5 - 19 07/12/95	Center Street Area MW-106S2 23 - 25.5 07/12/95	Center Street Area MW-106WT 8 - 13 07/12/95	Center Street Area MW-136S1 37 - 42 07/20/95	Center Street Area MW-136S2 44 - 49 07/20/95
Semivolatile Organics									
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
2,4,6-Trichlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dichlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dimethylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dinitrophenol	ug/L	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
2,4-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Chlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Methylnaphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
2-Nitrophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Picoline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	20 U	20 U	20 UJ	20 U	20 U	20 U	20 U	20 U
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
4,6-Dinitro-2-methylphenol	ug/L	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloro-3-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloroaniline	ug/L	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

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Semivolatile Organics (Cont'd.)									
4-Nitroaniline	ug/L	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
4-Nitrophenol	ug/L	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	1.1 J	5.0 U	5.0 U	5.0 U
Acenaphthylene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(a)pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(b)fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(g,h,i)perylene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(k)fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Chloroethyl)ether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Ethylhexyl)phthalate	ug/L	1.2 J	5.0 U	5.0 U	5.0 U	0.70 J	0.80 J	0.95 U	1.4 U
Butylbenzylphthalate	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Diallate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibenzofuran	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Diethylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dimethylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Di-n-Butylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Di-n-Octylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Diphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Fluorene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobenzene	ug/L	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobutadiene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorocyclopentadiene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachloroethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

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SAGINAW, MICHIGAN

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Semivolatile Organics (Cont'd.)									
Isophorone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Isosafrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Nitrobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosodiphenylamine	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	20 U	25 U	20 U	20 U	20 U	20 U	25 U	25 U
Phenacetin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Phenol	ug/L	0.60 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 J
Pronamide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
PCBs									
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
PCBs-Dissolved									
Aroclor-1016 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1221 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1232 (Dissolved)	ug/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Aroclor-1242 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U

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PCBs-Dissolved (Cont'd.)									
Aroclor-1248 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1254 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1260 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Organochlorine Pesticides									
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1221	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1232	ug/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Aroclor-1242	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1248	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1254	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1260	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Organophosphate Pesticides									
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Center Street Area MW-105S1 36.5 - 41.5 07/12/95	Center Street Area MW-105S2 43 - 48 07/12/95	Center Street Area MW-105WT 5 - 15 07/12/95	Center Street Area MW-106S1 16.5 - 19 07/12/95	Center Street Area MW-106S2 23 - 25.5 07/12/95	Center Street Area MW-106WT 8 - 13 07/12/95	Center Street Area MW-136S1 37 - 42 07/20/95	Center Street Area MW-136S2 44 - 49 07/20/95
Organophosphate Pesticides (Cont'd.)									
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides									
2,4,5-T	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans									
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Center Street Area MW-105S1 36.5 - 41.5 07/12/95	Center Street Area MW-105S2 43 - 48 07/12/95	Center Street Area MW-105WT 5 - 15 07/12/95	Center Street Area MW-106S1 16.5 - 19 07/12/95	Center Street Area MW-106S2 23 - 25.5 07/12/95	Center Street Area MW-106WT 8 - 13 07/12/95	Center Street Area MW-136S1 37 - 42 07/20/95	Center Street Area MW-136S2 44 - 49 07/20/95
Dioxins/Furans (Cont'd.)									
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Center Street Area MW-136S2 44 - 49 06/05/96	Center Street Area MW-136WT 13 - 23 07/20/95	Center Street Area MW-136WT 13 - 23 06/06/96	Center Street Area MW-140S1 28.5 - 33.5 07/20/95	Center Street Area MW-140S1 28.5 - 33.5 06/05/96	Center Street Area MW-140S2 45.5 - 50.5 07/20/95	Center Street Area MW-140S2 45.5 - 50.5 06/05/96	Center Street Area MW-140S2 45.5 - 50.5 05/17/00
Volatile Organics									
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA
1,1,2,2-Tetrachloroethane	ug/L	NA	1.0 U	NA	1.0 UJ	NA	1.0 UJ	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA
1,1-Dichloroethane	ug/L	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA
1,1-Dichloroethene	ug/L	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	5.0 U [5.0 U]	1.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	NA
1,2-Dichloroethane	ug/L	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA
1,2-Dichloroethene (total)	ug/L	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA
1,2-Dichloropropane	ug/L	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	5.0 U [5.0 U]	1.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	NA
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	5.0 U [5.0 U]	1.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	NA
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	NA	50 UJ	NA	50 U	NA	50 U	NA	NA
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	NA	50 U	NA	R	NA	R	NA	NA
3-Chloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	NA	50 U	NA	50 UJ	NA	50 UJ	NA	NA
Acetone	ug/L	NA	50 UJ	NA	50 U	NA	50 U	NA	NA
Acetonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA
Bromoform	ug/L	NA	1.0 U	NA	1.0 UJ	NA	1.0 UJ	NA	NA
Bromomethane	ug/L	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA
Carbon Disulfide	ug/L	NA	50 U	NA	50 U	NA	50 U	NA	NA
Carbon Tetrachloride	ug/L	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA
Chlorobenzene	ug/L	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Center Street Area MW-136S2 44 - 49 06/05/96	Center Street Area MW-136WT 13 - 23 07/20/95	Center Street Area MW-136WT 13 - 23 06/06/96	Center Street Area MW-140S1 28.5 - 33.5 07/20/95	Center Street Area MW-140S1 28.5 - 33.5 06/05/96	Center Street Area MW-140S2 45.5 - 50.5 07/20/95	Center Street Area MW-140S2 45.5 - 50.5 06/05/96	Center Street Area MW-140S2 45.5 - 50.5 05/17/00
Volatile Organics (Cont'd.)									
Chloroethane	ug/L	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA
Chloroform	ug/L	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA
Chloromethane	ug/L	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA
cis-1,2-Dichloroethene	ug/L	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA
cis-1,3-Dichloropropene	ug/L	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA
Cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA
Toluene	ug/L	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA
trans-1,2-Dichloroethene	ug/L	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA
trans-1,3-Dichloropropene	ug/L	NA	1.0 U	NA	1.0 UJ	NA	1.0 UJ	NA	NA
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA
Total 1,3-Dichloropropenes	ug/L	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA
Total Xylenes	ug/L	NA	3.0 U	NA	3.0 U	NA	3.0 U	NA	NA

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SAGINAW, MICHIGAN

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Semivolatile Organics									
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	1.0 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	1.0 U
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	1.0 U
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	50 U [50 U]	50 U	50 U	R	50 U	50 U	50 U	5.0 U
2,4,6-Trichlorophenol	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	R	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dichlorophenol	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	R	5.0 U	5.0 U	5.0 U	10 U
2,4-Dimethylphenol	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	R	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dinitrophenol	ug/L	20 U [20 U]	20 U	20 UJ	R	20 U	20 U	20 U	20 U
2,4-Dinitrotoluene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Chlorophenol	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	R	5.0 U	5.0 U	5.0 U	5.0 U
2-Methylnaphthalene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Methylphenol	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	R	5.0 U	5.0 U	5.0 U	5.0 U
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	20 U [20 U]	20 U	20 U	20 U	20 U	20 U	20 U	20 U
2-Nitrophenol	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	R	5.0 U	5.0 U	5.0 U	5.0 U
2-Picoline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	20 U [20 U]	20 U	20 U	20 U	20 U	20 U	20 U	20 U
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	20 U [20 U]	20 U	20 U	20 U	20 U	20 U	20 U	20 U
4,6-Dinitro-2-methylphenol	ug/L	20 U [20 U]	20 U	20 U	R	20 U	20 U	20 U	20 U
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloro-3-Methylphenol	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	R	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloroaniline	ug/L	20 U [20 U]	20 U	20 U	20 U	20 U	20 U	20 U	10 U
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methylphenol	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	R	5.0 U	5.0 U	5.0 U	5.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Center Street Area MW-136S2 44 - 49 06/05/96	Center Street Area MW-136WT 13 - 23 07/20/95	Center Street Area MW-136WT 13 - 23 06/06/96	Center Street Area MW-140S1 28.5 - 33.5 07/20/95	Center Street Area MW-140S1 28.5 - 33.5 06/05/96	Center Street Area MW-140S2 45.5 - 50.5 07/20/95	Center Street Area MW-140S2 45.5 - 50.5 06/05/96	Center Street Area MW-140S2 45.5 - 50.5 05/17/00
Semivolatile Organics (Cont'd.)									
4-Nitroaniline	ug/L	20 U [20 U]	20 U	20 U	20 U	20 U	20 U	20 U	20 U
4-Nitrophenol	ug/L	20 U [20 U]	20 U	20 U	R	20 U	20 U	20 U	20 U
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acenaphthylene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(a)pyrene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(b)fluoranthene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(g,h,i)perylene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U
Benzo(k)fluoranthene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Chloroethyl)ether	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Ethylhexyl)phthalate	ug/L	2.9 J [5.0 U]	4.0 U	5.0 UJ	1.2 J	5.0 U	0.70 J	5.0 U	5.0 U
Butylbenzylphthalate	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	10 U [10 U]	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Diallate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U
Dibenzofuran	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Diethylphthalate	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dimethylphthalate	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Di-n-Butylphthalate	ug/L	5.0 U [5.0 U]	1.8 J	5.0 U	5.0 U	5.0 U	0.84 J	5.0 U	5.0 U
Di-n-Octylphthalate	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Diphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Fluorene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobenzene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobutadiene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorocyclopentadiene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachloroethane	ug/L	2.0 U [2.0 U]	5.0 U	2.0 U	5.0 U	2.0 U	5.0 U	2.0 U	5.0 U
Hexachloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Center Street Area MW-136S2 44 - 49 06/05/96	Center Street Area MW-136WT 13 - 23 07/20/95	Center Street Area MW-136WT 13 - 23 06/06/96	Center Street Area MW-140S1 28.5 - 33.5 07/20/95	Center Street Area MW-140S1 28.5 - 33.5 06/05/96	Center Street Area MW-140S2 45.5 - 50.5 07/20/95	Center Street Area MW-140S2 45.5 - 50.5 06/05/96	Center Street Area MW-140S2 45.5 - 50.5 05/17/00
Semivolatile Organics (Cont'd.)									
Isophorone	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Isosafrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Nitrobenzene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosodiphenylamine	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	25 U [25 U]	25 U	25 U	R	25 U	25 U	25 U	1.0 U
Phenacetin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Phenol	ug/L	1.4 J [1.7 J]	1.2 J	5.0 U	R	5.0 U	5.0 U	5.0 U	5.0 U
Pronamide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	R	5.0 U	5.0 U	5.0 U	5.0 U
PCBs									
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
PCBs-Dissolved									
Aroclor-1016 (Dissolved)	ug/L	NA	0.2 U	NA	0.2 U	NA	0.2 U	NA	NA
Aroclor-1221 (Dissolved)	ug/L	NA	0.2 U	NA	0.2 U	NA	0.2 U	NA	NA
Aroclor-1232 (Dissolved)	ug/L	NA	0.4 U	NA	0.4 U	NA	0.4 U	NA	NA
Aroclor-1242 (Dissolved)	ug/L	NA	0.2 U	NA	0.2 U	NA	0.2 U	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

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PCBs-Dissolved (Cont'd.)									
Aroclor-1248 (Dissolved)	ug/L	NA	0.2 U	NA	0.2 U	NA	0.2 U	NA	NA
Aroclor-1254 (Dissolved)	ug/L	NA	0.2 U	NA	0.2 U	NA	0.2 U	NA	NA
Aroclor-1260 (Dissolved)	ug/L	NA	0.2 U	NA	0.2 U	NA	0.2 U	NA	NA
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	0.4 U	NA	0.4 U	NA	0.4 U	NA	NA
Organochlorine Pesticides									
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	NA	0.2 U	NA	0.2 U	NA	0.2 U	NA	NA
Aroclor-1221	ug/L	NA	0.2 U	NA	0.2 U	NA	0.2 U	NA	NA
Aroclor-1232	ug/L	NA	0.4 U	NA	0.4 U	NA	0.4 U	NA	NA
Aroclor-1242	ug/L	NA	0.2 U	NA	0.2 U	NA	0.2 U	NA	NA
Aroclor-1248	ug/L	NA	0.2 U	NA	0.2 U	NA	0.2 U	NA	NA
Aroclor-1254	ug/L	NA	0.2 U	NA	0.2 U	NA	0.2 U	NA	NA
Aroclor-1260	ug/L	NA	0.2 U	NA	0.2 U	NA	0.2 U	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Organophosphate Pesticides									
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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ORGANIC COMPOUNDS

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

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Organophosphate Pesticides (Cont'd.)									
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides									
2,4,5-T	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans									
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	Center Street Area MW-136S2 44 - 49 06/05/96	Center Street Area MW-136WT 13 - 23 07/20/95	Center Street Area MW-136WT 13 - 23 06/06/96	Center Street Area MW-140S1 28.5 - 33.5 07/20/95	Center Street Area MW-140S1 28.5 - 33.5 06/05/96	Center Street Area MW-140S2 45.5 - 50.5 07/20/95	Center Street Area MW-140S2 45.5 - 50.5 06/05/96	Center Street Area MW-140S2 45.5 - 50.5 05/17/00
Dioxins/Furans (Cont'd.)									
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Center Street Area MW-140WT 11 - 21 07/20/95	Center Street Area MW-140WT 11 - 21 06/05/96	Center Street Area MW-140WT 11 - 21 05/17/00	Center Street Area MW-141WT 4 - 14 07/28/95	Center Street Area MW-145WT 7 - 17 07/28/95	Center Street Area MW-145WT 7 - 17 06/04/96	Center Street Area MW-146WT 7 - 17 07/28/95	Center Street Area MW-146WT 7 - 17 06/12/96
Volatile Organics									
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	1.0 U	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	NA	1.0 U	NA
1,1,2,2-Tetrachloroethane	ug/L	1.0 UJ	NA	NA	1.0 U	1.0 U	NA	1.0 U	NA
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	NA	1.0 U	NA
1,1-Dichloroethane	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	NA	1.0 U	NA
1,1-Dichloroethene	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	NA	1.0 U	NA
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	1.0 U	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	R	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	1.0 U	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	1.0 U	5.0 U	NA	1.0 U	1.0 U	5.0 U	1.0 U	5.0 U
1,2-Dichloroethane	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	NA	1.0 U	NA
1,2-Dichloroethene (total)	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	NA	1.0 U	NA
1,2-Dichloropropane	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	NA	1.0 U	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1.0 U	5.0 U	NA	1.0 U	1.0 U	5.0 U	1.0 U	5.0 U
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	1.0 U	5.0 U	NA	1.0 U	1.0 U	5.0 U	1.0 U	5.0 U
1,4-Dioxane	ug/L	NA	NA	NA	R	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	50 U	NA	NA	5.0 UJ	50 U	NA	50 U	NA
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	1.0 U	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	R	NA	NA	5.0 U	50 U	NA	R	NA
3-Chloropropene	ug/L	NA	NA	NA	2.0 U	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 UJ	NA	NA	5.0 U	50 U	NA	50 U	NA
Acetone	ug/L	4.1 J	NA	NA	10 UJ	50 U	NA	50 U	NA
Acetonitrile	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	R	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
Benzene	ug/L	1.0 U	NA	NA	1.0 U	1.9	NA	2.4	NA
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	NA	1.0 U	NA
Bromoform	ug/L	1.0 UJ	NA	NA	1.0 U	1.0 U	NA	1.0 U	NA
Bromomethane	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	NA	1.0 U	NA
Carbon Disulfide	ug/L	50 U	NA	NA	1.0 U	50 U	NA	50 U	NA
Carbon Tetrachloride	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	NA	1.0 U	NA
Chlorobenzene	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	NA	1.0 U	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Center Street Area MW-140WT 11 - 21 07/20/95	Center Street Area MW-140WT 11 - 21 06/05/96	Center Street Area MW-140WT 11 - 21 05/17/00	Center Street Area MW-141WT 4 - 14 07/28/95	Center Street Area MW-145WT 7 - 17 07/28/95	Center Street Area MW-145WT 7 - 17 06/04/96	Center Street Area MW-146WT 7 - 17 07/28/95	Center Street Area MW-146WT 7 - 17 06/12/96
Volatile Organics (Cont'd.)									
Chloroethane	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	NA	1.0 U	NA
Chloroform	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	NA	1.0 U	NA
Chloromethane	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	NA	1.0 U	NA
cis-1,2-Dichloroethene	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	NA	1.0 U	NA
cis-1,3-Dichloropropene	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	NA	1.0 U	NA
Cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	NA	1.0 U	NA
Dibromomethane	ug/L	NA	NA	NA	1.0 U	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	1.0 U	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	1.0 U	NA	NA	NA	NA
Ethylbenzene	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	NA	1.0 U	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	1.0 U	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	R	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	1.0 U	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	1.0 U	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	NA	1.8	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	R	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	NA	1.0 U	NA
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	NA	1.0 U	NA
Toluene	ug/L	1.2 U	NA	NA	1.0 U	1.0 U	NA	1.0 U	NA
trans-1,2-Dichloroethene	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	NA	1.0 U	NA
trans-1,3-Dichloropropene	ug/L	1.0 UJ	NA	NA	1.0 U	1.0 U	NA	1.0 U	NA
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	R	NA	NA	NA	NA
Trichloroethene	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	NA	1.0 U	NA
Trichlorofluoromethane	ug/L	NA	NA	NA	1.0 U	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	2.0 U	NA	NA	NA	NA
Vinyl Chloride	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	NA	1.0 U	NA
Total 1,3-Dichloropropenes	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	NA	1.0 U	NA
Total Xylenes	ug/L	3.0 U	NA	NA	1.0 U	3.0 U	NA	1.7 J	NA

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Center Street Area MW-140WT 11 - 21 07/20/95	Center Street Area MW-140WT 11 - 21 06/05/96	Center Street Area MW-140WT 11 - 21 05/17/00	Center Street Area MW-141WT 4 - 14 07/28/95	Center Street Area MW-145WT 7 - 17 07/28/95	Center Street Area MW-145WT 7 - 17 06/04/96	Center Street Area MW-146WT 7 - 17 07/28/95	Center Street Area MW-146WT 7 - 17 06/12/96
Semivolatile Organics									
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	5.0 U	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	1.0 U	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	R	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	1.0 U	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	5.0 U	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	1.0 U	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	50 U	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	50 U	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	50 U	50 U	5.0 U	10 U	50 U	50 U	50 U	50 U
2,4,6-Trichlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dichlorophenol	ug/L	5.0 U	5.0 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dimethylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dinitrophenol	ug/L	20 U	20 UJ	20 U	20 U	20 U	20 U	20 U	20 U
2,4-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,6-Dichlorophenol	ug/L	NA	NA	NA	5.0 U	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Acetylaminofluorene	ug/L	NA	NA	NA	100 U	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Chlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Methylnaphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0.91 J	5.0 U
2-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Naphthylamine	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
2-Nitroaniline	ug/L	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
2-Nitrophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Picoline	ug/L	NA	NA	NA	20 U	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	20 U	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	5.0 U	NA	NA	NA	NA
3-Nitroaniline	ug/L	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
4,6-Dinitro-2-methylphenol	ug/L	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
4-Aminobiphenyl	ug/L	NA	NA	NA	50 U	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloro-3-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloroaniline	ug/L	20 U	20 U	10 U	10 U	20 U	20 U	20 U	20 U
4-Chlorobenzilate	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Center Street Area MW-140WT 11 - 21 07/20/95	Center Street Area MW-140WT 11 - 21 06/05/96	Center Street Area MW-140WT 11 - 21 05/17/00	Center Street Area MW-141WT 4 - 14 07/28/95	Center Street Area MW-145WT 7 - 17 07/28/95	Center Street Area MW-145WT 7 - 17 06/04/96	Center Street Area MW-146WT 7 - 17 07/28/95	Center Street Area MW-146WT 7 - 17 06/12/96
Semivolatile Organics (Cont'd.)									
4-Nitroaniline	ug/L	20 U	20 U	20 U	20 UJ	20 U	20 U	20 U	20 U
4-Nitrophenol	ug/L	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	100 U	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	100 U	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	20 U	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	20 U	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	50 UJ	NA	NA	NA	NA
Acenaphthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0.63 J	5.0 U
Acenaphthylene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetophenone	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
Anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(a)pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(b)fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(g,h,i)perylene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(k)fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzyl Alcohol	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Chloroethyl)ether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Ethylhexyl)phthalate	ug/L	19	12	5.0 U	5.0 U	0.81 J	5.0 U	4.4 J	5.0 U
Butylbenzylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	10 U	10 U	10 U	NA	10 U	10 U	10 U	10 U
Chrysene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Diallate	ug/L	NA	NA	NA	5.0 U	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibenzofuran	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Diethylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dimethylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Di-n-Butylphthalate	ug/L	1.0 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Di-n-Octylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Diphenylamine	ug/L	NA	NA	NA	5.0 U	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
Fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Fluorene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobutadiene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorocyclopentadiene	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U
Hexachloroethane	ug/L	5.0 U	2.0 U	5.0 U	5.0 U	5.0 U	2.0 U	5.0 U	2.0 U
Hexachloropropene	ug/L	NA	NA	NA	100 U	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

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Semivolatile Organics (Cont'd.)									
Isophorone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Isosafrole	ug/L	NA	NA	NA	20 U	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	50 U	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
Naphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	4.3 J	3.9 J
Nitrobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosodiethylamine	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	5.0 U	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosodiphenylamine	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	20 U	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	20 U	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	5.0 U	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	50 U	NA	NA	NA	NA
Pentachlorophenol	ug/L	25 U	25 U	1.0 U	25 U	25 U	25 U	25 U	25 U
Phenacetin	ug/L	NA	NA	NA	20 U	NA	NA	NA	NA
Phenanthrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Phenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Pronamide	ug/L	NA	NA	NA	20 U	NA	NA	NA	NA
Pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Pyridine	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	20 U	NA	NA	NA	NA
Total Methylphenols	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
PCBs									
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
PCBs-Dissolved									
Aroclor-1016 (Dissolved)	ug/L	0.2 U	0.2 U	NA	0.2 U	0.2 U	NA	0.2 U	NA
Aroclor-1221 (Dissolved)	ug/L	0.2 U	0.2 U	NA	0.2 U	0.2 U	NA	0.2 U	NA
Aroclor-1232 (Dissolved)	ug/L	0.4 U	0.4 U	NA	0.4 U	0.4 U	NA	0.4 U	NA
Aroclor-1242 (Dissolved)	ug/L	0.2 U	0.2 U	NA	0.2 U	0.2 U	NA	0.2 U	NA

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PCBs-Dissolved (Cont'd.)									
Aroclor-1248 (Dissolved)	ug/L	0.2 U	0.2 U	NA	0.2 U	0.2 U	NA	0.2 U	NA
Aroclor-1254 (Dissolved)	ug/L	0.2 U	0.2 U	NA	0.2 U	0.2 U	NA	0.2 U	NA
Aroclor-1260 (Dissolved)	ug/L	0.2 U	0.2 U	NA	0.2 U	0.2 U	NA	0.2 U	NA
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	0.4 U	0.4 U	NA	0.4 U	0.4 U	NA	0.4 U	NA
Organochlorine Pesticides									
4,4'-DDD	ug/L	NA	NA	NA	0.02 U	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	0.02 U	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	0.02 U	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	0.01 U	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	0.01 U	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	0.02 U	NA	NA	NA	NA
Aroclor-1016	ug/L	0.2 U	0.2 U	NA	0.2 U	0.2 U	NA	0.2 U	NA
Aroclor-1221	ug/L	0.2 U	0.2 U	NA	0.2 U	0.2 U	NA	0.2 U	NA
Aroclor-1232	ug/L	0.4 U	0.4 U	NA	0.4 U	0.4 U	NA	0.4 U	NA
Aroclor-1242	ug/L	0.2 U	0.2 U	NA	0.2 U	0.2 U	NA	0.2 U	NA
Aroclor-1248	ug/L	0.2 U	0.24	NA	0.2 U	0.2 U	NA	0.2 U	NA
Aroclor-1254	ug/L	0.2 U	0.2 U	NA	0.2 U	0.2 U	NA	0.2 U	NA
Aroclor-1260	ug/L	0.2 U	0.2 U	NA	0.2 U	0.2 U	NA	0.2 U	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	0.01 U	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	0.01 U	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	0.02 U	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	0.01 U	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	0.02 U	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	0.02 U	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	0.02 U	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	0.02 U	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	0.01 U	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	0.02 U	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	0.01 U	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	0.01 U	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	0.1 U	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	0.1 UJ	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA
Organophosphate Pesticides									
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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Organophosphate Pesticides (Cont'd.)									
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides									
2,4,5-T	ug/L	NA	NA	NA	1 UJ	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	1 UJ	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	4 UJ	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	0.6 UJ	NA	NA	NA	NA
Dioxins/Furans									
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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Dioxins/Furans (Cont'd.)									
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	0.0046 U	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	0.003 U	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	0.0057 U	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	0.011 U	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	0.028 U	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	0.0036 U	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	0.0046 U	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Center Street Area MW-176WT 7 - 16.5 09/27/96	Center Street Area TW-201WT 02/06/95	Center Street Area TW-203S1 05/23/95	Center Street Area TW-203S2 05/24/95	Center Street Area TW-203WT 02/03/95	Center Street Area TW-205S1 38 - 42 02/07/95	Center Street Area TW-205S2 46 - 50 02/07/95	Center Street Area TW-205WT 10 - 14 02/06/95
Volatile Organics									
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethene (total)	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	50 U [50 U]	50 U	50 UJ	50 UJ	50 U	50 U	50 U	50 U
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	50 U [50 U]	R	50 U	50 U	R	R	R	R
3-Chloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U [50 U]	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Acetone	ug/L	100 U [100 U]	50 UJ	50 U	50 U	50 UJ	50 UJ	50 UJ	50 UJ
Acetonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	5.0 U [5.0 U]	1.0 U	1.0 U	1.0 U	1.4	1.0 U	1.0 U	1.0 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	1.0 U [1.0 U]	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Disulfide	ug/L	50 U [50 U]	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Carbon Tetrachloride	ug/L	1.0 U [1.0 U]	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Center Street Area MW-176WT 7 - 16.5 09/27/96	Center Street Area TW-201WT 02/06/95	Center Street Area TW-203S1 05/23/95	Center Street Area TW-203S2 05/24/95	Center Street Area TW-203WT 02/03/95	Center Street Area TW-205S1 38 - 42 02/07/95	Center Street Area TW-205S2 46 - 50 02/07/95	Center Street Area TW-205WT 10 - 14 02/06/95
Volatile Organics (Cont'd.)									
Chloroethane	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.1	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	5.0 U [5.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total 1,3-Dichloropropenes	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total Xylenes	ug/L	3.0 U [3.0 U]	3.0 U	3.0 UJ	3.0 UJ	3.0 U	3.0 U	3.0 U	3.0 U

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TABLE A-1
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ORGANIC COMPOUNDS

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

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Semivolatile Organics									
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	5.0 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	5.0 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	NA	5.0 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	5.0 U
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	50 U	50 U	50 U	100 U	50 U	50 U	50 U
2,4,6-Trichlorophenol	ug/L	NA	5.0 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	5.0 U
2,4-Dichlorophenol	ug/L	NA	5.0 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	5.0 U
2,4-Dimethylphenol	ug/L	NA	5.0 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	5.0 U
2,4-Dinitrophenol	ug/L	NA	20 U	20 U	20 U	40 U	20 U	20 U	20 U
2,4-Dinitrotoluene	ug/L	NA	5.0 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	5.0 U
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	5.0 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	5.0 U
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	5.0 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	5.0 U
2-Chlorophenol	ug/L	NA	5.0 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	5.0 U
2-Methylnaphthalene	ug/L	NA	5.0 U	5.0 U	5.0 U	1.3 J	5.0 U	5.0 U	5.0 U
2-Methylphenol	ug/L	NA	5.0 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	5.0 U
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	20 U	20 U	20 U	40 U	20 U	20 U	20 U
2-Nitrophenol	ug/L	NA	5.0 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	5.0 U
2-Picoline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	20 U	20 U	20 U	40 U	20 U	20 U	20 U
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	20 U	20 U	20 U	40 U	20 U	20 U	20 U
4,6-Dinitro-2-methylphenol	ug/L	NA	20 U	20 U	20 U	40 U	20 U	20 U	20 U
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	5.0 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	5.0 U
4-Chloro-3-Methylphenol	ug/L	NA	5.0 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	5.0 U
4-Chloroaniline	ug/L	NA	20 U	20 U	20 U	40 U	20 U	20 U	20 U
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	5.0 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	5.0 U
4-Methylphenol	ug/L	NA	5.0 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	5.0 U

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Semivolatile Organics (Cont'd.)									
4-Nitroaniline	ug/L	NA	20 U	20 U	20 U	40 U	20 U	20 U	20 U
4-Nitrophenol	ug/L	NA	20 U	20 U	20 U	40 U	20 U	20 U	20 U
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	5.0 U	5.0 U	5.0 U	1.5 J	5.0 U	5.0 U	5.0 U
Acenaphthylene	ug/L	NA	5.0 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	5.0 U
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	5.0 U	5.0 U	5.0 U	2.0 J	5.0 U	5.0 U	5.0 U
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.3 J	5.0 U	5.0 U	5.0 U
Benzo(a)pyrene	ug/L	NA	5.0 U	5.0 U	5.0 U	4.7 J	5.0 U	5.0 U	5.0 U
Benzo(b)fluoranthene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.9 J	5.0 U	5.0 U	5.0 U
Benzo(g,h,i)perylene	ug/L	NA	5.0 U	5.0 U	5.0 U	2.1 J	5.0 U	5.0 U	5.0 U
Benzo(k)fluoranthene	ug/L	NA	5.0 U	5.0 U	5.0 U	2.9 J	5.0 U	5.0 U	5.0 U
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	5.0 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	5.0 U
bis(2-Chloroethyl)ether	ug/L	NA	5.0 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	5.0 U
bis(2-Ethylhexyl)phthalate	ug/L	NA	3.5 J	5.0 U	5.0 U	10 U	12	1.9 J	18
Butylbenzylphthalate	ug/L	NA	5.0 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	5.0 U
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	5.0 U	5.0 U	5.0 U	1.6 J	5.0 U	5.0 U	5.0 U
Chrysene	ug/L	NA	5.0 U	5.0 U	5.0 U	7.0 J	5.0 U	5.0 U	5.0 U
Diallate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	5.0 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	5.0 U
Dibenzofuran	ug/L	NA	5.0 U	5.0 U	5.0 U	1.7 J	5.0 U	5.0 U	5.0 U
Diethylphthalate	ug/L	NA	5.0 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	5.0 U
Dimethylphthalate	ug/L	NA	5.0 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	5.0 U
Di-n-Butylphthalate	ug/L	NA	4.0 J	5.0 U	5.0 U	10 U	5.0 U	0.91 J	5.0 U
Di-n-Octylphthalate	ug/L	NA	5.0 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	5.0 U
Diphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	5.0 U	5.0 U	5.0 U	12	5.0 U	5.0 U	5.0 U
Fluorene	ug/L	NA	5.0 U	5.0 U	5.0 U	3.0 J	5.0 U	5.0 U	5.0 U
Hexachlorobenzene	ug/L	NA	5.0 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	5.0 U
Hexachlorobutadiene	ug/L	NA	5.0 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	5.0 U
Hexachlorocyclopentadiene	ug/L	NA	5.0 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	5.0 U
Hexachloroethane	ug/L	NA	5.0 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	5.0 U
Hexachloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	5.0 U	5.0 U	5.0 U	2.2 J	5.0 U	5.0 U	5.0 U

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

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Semivolatile Organics (Cont'd.)									
Isophorone	ug/L	NA	5.0 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	5.0 U
Isosafrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	5.0 U	5.0 U	5.0 U	4.3 J	5.0 U	5.0 U	5.0 U
Nitrobenzene	ug/L	NA	5.0 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	5.0 U
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	5.0 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	5.0 U
N-Nitrosodiphenylamine	ug/L	NA	5.0 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	5.0 U
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	20 U	20 U	20 U	40 U	20 U	20 U	20 U
Phenacetin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	5.0 U	5.0 U	5.0 U	8.6 J	5.0 U	5.0 U	5.0 U
Phenol	ug/L	NA	5.0 U	5.0 U	5.0 U	10 U	5.0 U	0.76 J	5.0 U
Pronamide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	5.0 U	5.0 U	5.0 U	9.4 J	5.0 U	5.0 U	5.0 U
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	NA	5.0 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	5.0 U
PCBs									
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
PCBs-Dissolved									
Aroclor-1016 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1221 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1232 (Dissolved)	ug/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Aroclor-1242 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U

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SAGINAW, MICHIGAN

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PCBs-Dissolved (Cont'd.)									
Aroclor-1248 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1254 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1260 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Organochlorine Pesticides									
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1221	ug/L	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1232	ug/L	0.4 U [0.4 U]	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Aroclor-1242	ug/L	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1248	ug/L	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1254	ug/L	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1260	ug/L	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Organophosphate Pesticides									
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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Organophosphate Pesticides (Cont'd.)									
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides									
2,4,5-T	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans									
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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Dioxins/Furans (Cont'd.)									
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Central Type III Landfill B-3BAUG 22.2 - 27.2 07/25/95	Central Type III Landfill B-3BAUG 22.2 - 27.2 06/06/96	Central Type III Landfill B-3BAUG 22.2 - 27.2 05/18/00	Central Type III Landfill B-3R 16 - 26 07/26/95	Central Type III Landfill MW-143WT 6 - 16 07/25/95	Central Type III Landfill MW-143WT 6 - 16 06/08/96	Central Type III Landfill X-2A 8.6 - 11.6 07/15/95
Volatile Organics								
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 UJ	1.0 U	1.0 U	1.0 UJ	1.0 UJ	NA	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	0.11 J	1.0 U	1.0 U	NA	1.0 U
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	5.0 U	1.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
1,2-Dichloroethene (total)	ug/L	6.2	2.7	1.0 U	1.0 U	1.0 U	NA	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	5.0 U	1.0 U
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	5.0 U	1.0 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	50 U	50 U	10 U	50 U	50 U	NA	50 UJ
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	R	50 U	10 U	R	R	NA	50 U
3-Chloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U	50 U	10 U	50 U	50 U	NA	50 U
Acetone	ug/L	50 U	100 U	10 U	50 U	50 U	NA	50 UJ
Acetonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	1.0 U	5.0 U	1.0 U	1.0 U	1.5	NA	1.0 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
Bromomethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
Carbon Disulfide	ug/L	50 U	50 U	1.0 U	50 U	50 U	NA	50 U
Carbon Tetrachloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U

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TABLE A-1
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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

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Volatile Organics (Cont'd.)								
Chloroethane	ug/L	1.0 U	1.0 U	0.19 J	1.0 U	1.0 U	NA	1.0 U
Chloroform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
Chloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
cis-1,2-Dichloroethene	ug/L	6.2	2.7	0.50 U	1.0 U	1.0 U	NA	1.0 U
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
Cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
Toluene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	0.50 U	1.0 U	1.0 U	NA	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 UJ	1.0 U	1.0 U	1.0 UJ	1.0 UJ	NA	1.0 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	31	18	1.0 U	1.0 U	1.0 U	NA	1.0 U
Total 1,3-Dichloropropenes	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
Total Xylenes	ug/L	3.0 U	3.0 U	1.0 U	3.0 U	1.8 U	NA	3.0 U

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Semivolatile Organics								
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5.0 U	NA	NA	50 U	5.0 U	5.0 U	5.0 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	5.0 U	NA	NA	50 UJ	5.0 U	5.0 U	5.0 U
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	50 U	NA	NA	500 U	50 U	50 U	50 U
2,4,6-Trichlorophenol	ug/L	5.0 U	NA	NA	50 U	5.0 U	5.0 U	5.0 U
2,4-Dichlorophenol	ug/L	5.0 U	NA	NA	50 U	5.0 U	5.0 U	5.0 U
2,4-Dimethylphenol	ug/L	5.0 U	NA	NA	50 U	5.0 U	5.0 U	1.4 J
2,4-Dinitrophenol	ug/L	20 U	NA	NA	200 U	20 U	20 UJ	20 U
2,4-Dinitrotoluene	ug/L	5.0 U	NA	NA	50 U	5.0 U	5.0 U	5.0 U
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	5.0 U	NA	NA	50 U	5.0 U	5.0 U	5.0 U
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	5.0 U	NA	NA	50 U	5.0 U	5.0 U	5.0 U
2-Chlorophenol	ug/L	5.0 U	NA	NA	50 U	5.0 U	5.0 U	5.0 U
2-Methylnaphthalene	ug/L	5.0 U	NA	NA	50 U	3.4 J	6.8 JN	12
2-Methylphenol	ug/L	5.0 U	NA	NA	50 U	5.0 U	5.0 U	1.4 J
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	20 U	NA	NA	200 U	20 U	20 U	20 U
2-Nitrophenol	ug/L	5.0 U	NA	NA	50 U	5.0 U	5.0 U	5.0 U
2-Picoline	ug/L	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	20 U	NA	NA	200 U	20 U	20 U	20 U
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	20 U	NA	NA	200 U	20 U	20 U	20 U
4,6-Dinitro-2-methylphenol	ug/L	20 U	NA	NA	200 U	20 U	20 U	20 U
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	5.0 U	NA	NA	50 U	5.0 U	5.0 U	5.0 U
4-Chloro-3-Methylphenol	ug/L	5.0 U	NA	NA	50 U	5.0 U	5.0 U	5.0 U
4-Chloroaniline	ug/L	20 U	NA	NA	200 U	20 U	20 U	20 U
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	5.0 U	NA	NA	50 U	5.0 U	5.0 U	5.0 U
4-Methylphenol	ug/L	5.0 U	NA	NA	50 U	5.0 U	5.0 U	6.0

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Semivolatile Organics (Cont'd.)								
4-Nitroaniline	ug/L	20 U	NA	NA	200 U	20 U	20 U	20 U
4-Nitrophenol	ug/L	20 U	NA	NA	200 U	20 U	20 U	20 UJ
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	5.0 U	NA	NA	50 U	0.52 J	1.0 JN	5.0 U
Acenaphthylene	ug/L	5.0 U	NA	NA	50 U	5.0 U	5.0 U	5.0 U
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	5.0 U	NA	NA	50 U	5.0 U	5.0 U	5.0 U
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	5.0 U	NA	NA	50 U	5.0 U	5.0 U	5.0 U
Benzo(a)pyrene	ug/L	5.0 U	NA	NA	50 U	5.0 U	5.0 U	5.0 U
Benzo(b)fluoranthene	ug/L	5.0 U	NA	NA	50 U	5.0 U	5.0 U	5.0 U
Benzo(g,h,i)perylene	ug/L	5.0 U	NA	NA	50 U	5.0 U	5.0 U	5.0 U
Benzo(k)fluoranthene	ug/L	5.0 U	NA	NA	50 U	5.0 U	5.0 U	5.0 U
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	5.0 U	NA	NA	50 U	5.0 U	5.0 U	5.0 U
bis(2-Chloroethyl)ether	ug/L	5.0 U	NA	NA	50 U	5.0 U	5.0 U	5.0 U
bis(2-Ethylhexyl)phthalate	ug/L	5.0 U	NA	NA	50 U	5.0 U	5.0 UJ	2.7 J
Butylbenzylphthalate	ug/L	5.0 U	NA	NA	50 U	5.0 U	5.0 U	5.0 U
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	10 U	NA	NA	100 U	10 U	10 U	10 U
Chrysene	ug/L	5.0 U	NA	NA	50 U	5.0 U	5.0 U	5.0 U
Diallate	ug/L	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	5.0 U	NA	NA	50 U	5.0 U	5.0 U	5.0 U
Dibenzofuran	ug/L	5.0 U	NA	NA	50 U	5.0 U	5.0 U	0.74 J
Diethylphthalate	ug/L	5.0 U	NA	NA	50 U	5.0 U	5.0 U	5.0 U
Dimethylphthalate	ug/L	5.0 U	NA	NA	50 U	5.0 U	5.0 U	5.0 U
Di-n-Butylphthalate	ug/L	5.0 U	NA	NA	50 U	0.55 J	5.0 U	5.0 U
Di-n-Octylphthalate	ug/L	5.0 U	NA	NA	50 U	5.0 U	5.0 U	5.0 U
Diphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	5.0 U	NA	NA	50 U	5.0 U	5.0 U	5.0 U
Fluorene	ug/L	5.0 U	NA	NA	50 U	5.0 U	5.0 U	0.92 J
Hexachlorobenzene	ug/L	5.0 U	NA	NA	50 U	5.0 U	5.0 U	5.0 U
Hexachlorobutadiene	ug/L	5.0 U	NA	NA	50 U	5.0 U	5.0 U	5.0 U
Hexachlorocyclopentadiene	ug/L	5.0 U	NA	NA	50 U	5.0 U	5.0 U	5.0 U
Hexachloroethane	ug/L	5.0 U	NA	NA	50 U	5.0 U	2.0 U	5.0 U
Hexachloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	5.0 U	NA	NA	50 U	5.0 U	5.0 U	5.0 U

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Semivolatile Organics (Cont'd.)								
Isophorone	ug/L	5.0 U	NA	NA	50 U	5.0 U	5.0 U	5.0 U
Isosafrole	ug/L	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	5.0 U	NA	NA	50 U	19	26 JN	8.9
Nitrobenzene	ug/L	5.0 U	NA	NA	50 U	5.0 U	5.0 U	5.0 U
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	5.0 U	NA	NA	50 U	5.0 U	5.0 U	5.0 U
N-Nitrosodiphenylamine	ug/L	5.0 U	NA	NA	50 U	5.0 U	5.0 U	5.0 U
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	25 U	NA	NA	250 U	25 U	25 U	25 U
Phenacetin	ug/L	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	5.0 U	NA	NA	50 U	5.0 U	5.0 U	2.6 J
Phenol	ug/L	5.0 U	NA	NA	50 U	5.0 U	5.0 U	5.0 U
Pronamide	ug/L	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	5.0 U	NA	NA	50 U	5.0 U	5.0 U	0.72 J
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	5.0 U	NA	NA	50 U	5.0 U	5.0 U	1.4 J
PCBs								
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA
PCBs-Dissolved								
Aroclor-1016 (Dissolved)	ug/L	0.2 U	NA	NA	0.2 U	0.21 U	NA	0.2 U
Aroclor-1221 (Dissolved)	ug/L	0.2 U	NA	NA	0.2 U	0.21 U	NA	0.8 U*
Aroclor-1232 (Dissolved)	ug/L	0.4 U	NA	NA	0.4 U	0.42 U	NA	0.4 U
Aroclor-1242 (Dissolved)	ug/L	0.2 U	NA	NA	0.2 U	0.21 U	NA	0.2 U

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PCBs-Dissolved (Cont'd.)								
Aroclor-1248 (Dissolved)	ug/L	0.2 U	NA	NA	0.2 U	0.21 U	NA	0.2 U
Aroclor-1254 (Dissolved)	ug/L	0.2 U	NA	NA	0.2 U	0.21 U	NA	0.2 U
Aroclor-1260 (Dissolved)	ug/L	0.2 U	NA	NA	0.2 U	0.21 U	NA	0.2 U
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	0.4 U	NA	NA	0.4 U	0.42 U	NA	0.8 U
Organochlorine Pesticides								
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	0.2 U	NA	NA	0.2 U	0.2 U	NA	0.2 UJ
Aroclor-1221	ug/L	0.2 U	NA	NA	0.2 U	0.2 U	NA	0.8 UJ*
Aroclor-1232	ug/L	0.4 U	NA	NA	0.4 U	0.4 U	NA	0.4 UJ
Aroclor-1242	ug/L	0.2 U	NA	NA	0.2 U	0.2 U	NA	0.2 UJ
Aroclor-1248	ug/L	0.2 U	NA	NA	0.2 U	0.2 U	NA	0.2 UJ
Aroclor-1254	ug/L	0.2 U	NA	NA	0.2 U	0.2 U	NA	0.2 UJ
Aroclor-1260	ug/L	0.2 U	NA	NA	0.2 U	0.2 U	NA	0.2 UJ
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA
Organophosphate Pesticides								
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Central Type III Landfill B-3BAUG 22.2 - 27.2 07/25/95	Central Type III Landfill B-3BAUG 22.2 - 27.2 06/06/96	Central Type III Landfill B-3BAUG 22.2 - 27.2 05/18/00	Central Type III Landfill B-3R 16 - 26 07/26/95	Central Type III Landfill MW-143WT 6 - 16 07/25/95	Central Type III Landfill MW-143WT 6 - 16 06/08/96	Central Type III Landfill X-2A 8.6 - 11.6 07/15/95
Organophosphate Pesticides (Cont'd.)								
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA
Herbicides								
2,4,5-T	ug/L	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans								
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Central Type III Landfill B-3BAUG 22.2 - 27.2 07/25/95	Central Type III Landfill B-3BAUG 22.2 - 27.2 06/06/96	Central Type III Landfill B-3BAUG 22.2 - 27.2 05/18/00	Central Type III Landfill B-3R 16 - 26 07/26/95	Central Type III Landfill MW-143WT 6 - 16 07/25/95	Central Type III Landfill MW-143WT 6 - 16 06/08/96	Central Type III Landfill X-2A 8.6 - 11.6 07/15/95
Dioxins/Furans (Cont'd.)								
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA	NA

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Central Type III Landfill X-2A 8.6 - 11.6 06/12/96	Central Type III Landfill X-2A 8.6 - 11.6 05/19/00	Central Type III Landfill X-2A 8.6 - 11.6 06/18/01	Central Type III Landfill X-2A 8.6 - 11.6 06/26/02	Central Type III Landfill X-2A 8.6 - 11.6 06/17/03	Central Type III Landfill X-2A 8.6 - 11.6 05/25/04	Central Type III Landfill X-2A 8.6 - 11.6 06/22/05
Volatile Organics								
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.7 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.7 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	1.0 U	NA	NA	NA
1,1,2-Trichloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.7 U	1.0 U
1,1-Dichloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.7 UJ	1.0 U
1,1-Dichloroethene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.7 U	1.0 U
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	1.0 U	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	2.0 U	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	1.0 U	NA	NA	NA
1,2-Dichlorobenzene	ug/L	5.0 U	NA	NA	1.0 U	NA	NA	NA
1,2-Dichloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.7 UJ	1.0 U
1,2-Dichloroethene (total)	ug/L	NA	1.0 U	1.0 U	NA	NA	NA	0.70 J
1,2-Dichloropropane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.7 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	5.0 U	NA	NA	1.0 U	NA	NA	NA
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	5.0 U	NA	NA	1.0 U	NA	NA	NA
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	NA	10 U	10 U	10 U	2.0 U	3.3 UJ	25 U
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	NA	10 U	10 U	10 U	2.0 U	3.3 UJ	50 U
3-Chloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	NA	10 U	5.0 U	10 U	2.0 U	3.3 UJ	50 U
Acetone	ug/L	NA	10 U	10 U	10 UJ	2.0 UJ	8.3 UJ	25 U
Acetonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	NA	0.36 J	0.57 J	0.71 J	0.60 J	1.7 U	1.0 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.7 U	1.0 U
Bromoform	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.7 U	1.0 U
Bromomethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.7 U	1.0 U
Carbon Disulfide	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.7 U	5.0 U
Carbon Tetrachloride	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.7 U	1.0 U
Chlorobenzene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.7 U	1.0 U

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Central Type III Landfill X-2A 8.6 - 11.6 06/12/96	Central Type III Landfill X-2A 8.6 - 11.6 05/19/00	Central Type III Landfill X-2A 8.6 - 11.6 06/18/01	Central Type III Landfill X-2A 8.6 - 11.6 06/26/02	Central Type III Landfill X-2A 8.6 - 11.6 06/17/03	Central Type III Landfill X-2A 8.6 - 11.6 05/25/04	Central Type III Landfill X-2A 8.6 - 11.6 06/22/05
Volatile Organics (Cont'd.)								
Chloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.7 U	1.0 U
Chloroform	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.7 U	1.0 U
Chloromethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.7 U	1.0 U
cis-1,2-Dichloroethene	ug/L	NA	0.50 U	0.50 U	0.50 U	1.0 U	1.7 U	0.70 J
cis-1,3-Dichloropropene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.7 U	1.0 U
Cyclohexane	ug/L	NA	NA	NA	1.0 U	NA	NA	NA
Dibromochloromethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.7 U	1.0 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	1.0 U	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.7 U	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	1.0 U	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	10 U	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	1.0 U	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	5.0 U	NA	NA	NA
Methylene Chloride	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.7 UJ	5.0 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.7 U	1.0 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.7 U	1.0 U
Toluene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.7 U	1.0 U
trans-1,2-Dichloroethene	ug/L	NA	0.50 U	0.50 U	0.50 U	1.0 U	1.7 U	1.0 U
trans-1,3-Dichloropropene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.7 U	1.0 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.7 U	2.0
Trichlorofluoromethane	ug/L	NA	NA	NA	1.0 U	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.5 J	1.0 U
Total 1,3-Dichloropropenes	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.7 U	1.0 U
Total Xylenes	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.7 U	2.0 U

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Semivolatile Organics								
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5.0 U	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	5.0 U	NA	NA	NA	NA	NA	NA
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	50 U	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	5.0 U	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	5.0 U	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	5.0 U	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	20 U	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	5.0 U	NA	NA	NA	NA	NA	NA
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	5.0 U	NA	NA	NA	NA	NA	NA
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	5.0 U	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	5.0 U	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	5.0 U	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	5.0 U	NA	NA	NA	NA	NA	NA
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	20 U	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	5.0 U	NA	NA	NA	NA	NA	NA
2-Picoline	ug/L	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	20 U	NA	NA	NA	NA	NA	NA
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	20 U	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	20 U	NA	NA	NA	NA	NA	NA
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	5.0 U	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	5.0 U	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	20 U	NA	NA	NA	NA	NA	NA
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	5.0 U	NA	NA	NA	NA	NA	NA
4-Methylphenol	ug/L	5.0 U	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Central Type III Landfill X-2A 8.6 - 11.6 06/12/96	Central Type III Landfill X-2A 8.6 - 11.6 05/19/00	Central Type III Landfill X-2A 8.6 - 11.6 06/18/01	Central Type III Landfill X-2A 8.6 - 11.6 06/26/02	Central Type III Landfill X-2A 8.6 - 11.6 06/17/03	Central Type III Landfill X-2A 8.6 - 11.6 05/25/04	Central Type III Landfill X-2A 8.6 - 11.6 06/22/05
Semivolatile Organics (Cont'd.)								
4-Nitroaniline	ug/L	20 U	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	20 U	NA	NA	NA	NA	NA	NA
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	5.0 U	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	5.0 U	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	5.0 U	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	5.0 U	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	5.0 U	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	5.0 U	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	5.0 U	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	5.0 U	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	5.0 U	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	5.0 U	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	5.0 UJ	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	5.0 U	NA	NA	NA	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	10 U	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	5.0 U	NA	NA	NA	NA	NA	NA
Diallate	ug/L	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	5.0 U	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	5.0 U	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	5.0 U	NA	NA	NA	NA	NA	NA
Dimethylphthalate	ug/L	5.0 U	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	5.0 U	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	5.0 U	NA	NA	NA	NA	NA	NA
Diphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	5.0 U	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	5.0 U	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	5.0 U	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	5.0 U	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	5.0 U	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	2.0 U	NA	NA	NA	NA	NA	NA
Hexachloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	5.0 U	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Central Type III Landfill X-2A 8.6 - 11.6 06/12/96	Central Type III Landfill X-2A 8.6 - 11.6 05/19/00	Central Type III Landfill X-2A 8.6 - 11.6 06/18/01	Central Type III Landfill X-2A 8.6 - 11.6 06/26/02	Central Type III Landfill X-2A 8.6 - 11.6 06/17/03	Central Type III Landfill X-2A 8.6 - 11.6 05/25/04	Central Type III Landfill X-2A 8.6 - 11.6 06/22/05
Semivolatile Organics (Cont'd.)								
Isophorone	ug/L	5.0 U	NA	NA	NA	NA	NA	NA
Isosafrole	ug/L	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	5.0 U	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	5.0 U	NA	NA	NA	NA	NA	NA
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	5.0 U	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	5.0 U	NA	NA	NA	NA	NA	NA
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	25 U	NA	NA	NA	NA	NA	NA
Phenacetin	ug/L	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	5.0 U	NA	NA	NA	NA	NA	NA
Phenol	ug/L	5.0 U	NA	NA	NA	NA	NA	NA
Pronamide	ug/L	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	5.0 U	NA	NA	NA	NA	NA	NA
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	5.0 U	NA	NA	NA	NA	NA	NA
PCBs								
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA
PCBs-Dissolved								
Aroclor-1016 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Central Type III Landfill X-2A 8.6 - 11.6 06/12/96	Central Type III Landfill X-2A 8.6 - 11.6 05/19/00	Central Type III Landfill X-2A 8.6 - 11.6 06/18/01	Central Type III Landfill X-2A 8.6 - 11.6 06/26/02	Central Type III Landfill X-2A 8.6 - 11.6 06/17/03	Central Type III Landfill X-2A 8.6 - 11.6 05/25/04	Central Type III Landfill X-2A 8.6 - 11.6 06/22/05
PCBs-Dissolved (Cont'd.)								
Aroclor-1248 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA
Organochlorine Pesticides								
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA
Organophosphate Pesticides								
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA

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ORGANIC COMPOUNDS

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SAGINAW, MICHIGAN

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Organophosphate Pesticides (Cont'd.)								
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA
Herbicides								
2,4,5-T	ug/L	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans								
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA

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ORGANIC COMPOUNDS

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

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Dioxins/Furans (Cont'd.)								
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA	NA

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Central Type III Landfill X-2A 8.6 - 11.6 12/12/06	Central Type III Landfill X-2B 22.1 - 25.1 07/15/95	Central Type III Landfill X-2B 22.1 - 25.1 12/12/06	Central Type III Landfill X-2C 43.1 - 46.1 07/15/95	Central Type III Landfill X-2C 43.1 - 46.1 12/12/06	Central Type III Landfill X-2DAUG 32 - 37 07/15/95	Central Type III Landfill X-2DAUG 32 - 37 12/13/06
Volatile Organics								
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5.0 U	NA	5.0 U	NA	5.0 U	NA	5.0 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U
1,2-Dibromoethane	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethene (total)	ug/L	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	1.6 J	50 UJ	0.51 J	50 UJ	25 U	50 UJ	25 UJ
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	50 U	50 U	50 U	50 U	50 U	50 U	50 UJ
3-Chloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Acetone	ug/L	25 UJ	50 UJ	25 UJ	50 UJ	25 UJ	50 UJ	25 UJ
Acetonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Disulfide	ug/L	5.0 U	50 U	5.0 U	50 U	5.0 U	50 U	5.0 U
Carbon Tetrachloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Central Type III Landfill X-2A 8.6 - 11.6 12/12/06	Central Type III Landfill X-2B 22.1 - 25.1 07/15/95	Central Type III Landfill X-2B 22.1 - 25.1 12/12/06	Central Type III Landfill X-2C 43.1 - 46.1 07/15/95	Central Type III Landfill X-2C 43.1 - 46.1 12/12/06	Central Type III Landfill X-2DAUG 32 - 37 07/15/95	Central Type III Landfill X-2DAUG 32 - 37 12/13/06
Volatile Organics (Cont'd.)								
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.39 J
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 UJ
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	0.62 J	NA	5.0 U	NA	5.0 U	NA	5.0 U
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	ug/L	10 U	NA	10 U	NA	10 U	NA	10 U
Methyl cyclohexane	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	5.0 U	NA	5.0 U	NA	5.0 U	NA	5.0 U
Methylene Chloride	ug/L	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	ug/L	1.0 U	1.0 U	0.21 J	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total 1,3-Dichloropropenes	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total Xylenes	ug/L	0.55 J	3.0 U	0.53 J	3.0 U	2.0 U	3.0 U	2.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Central Type III Landfill X-2A 8.6 - 11.6 12/12/06	Central Type III Landfill X-2B 22.1 - 25.1 07/15/95	Central Type III Landfill X-2B 22.1 - 25.1 12/12/06	Central Type III Landfill X-2C 43.1 - 46.1 07/15/95	Central Type III Landfill X-2C 43.1 - 46.1 12/12/06	Central Type III Landfill X-2DAUG 32 - 37 07/15/95	Central Type III Landfill X-2DAUG 32 - 37 12/13/06
Semivolatile Organics								
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	5.0 U	NA	6.0 U	NA	5.0 U	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	NA	5.0 U	6.0 U	6.0 U	6.0 U	5.0 U	5.0 U
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	50 U	6.0 U	60 U	6.0 U	50 U	5.0 U
2,4,6-Trichlorophenol	ug/L	NA	5.0 U	4.8 U	6.0 U	4.8 U	5.0 U	4.0 U
2,4-Dichlorophenol	ug/L	NA	5.0 U	12 U	6.0 U	12 U	5.0 U	10 U
2,4-Dimethylphenol	ug/L	NA	5.0 U	6.0 U	6.0 U	6.0 U	5.0 U	5.0 U
2,4-Dinitrophenol	ug/L	NA	20 U	24 U	24 U	24 U	20 U	20 U
2,4-Dinitrotoluene	ug/L	NA	5.0 U	6.0 U	6.0 U	6.0 U	5.0 U	5.0 U
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	5.0 U	6.0 U	6.0 U	6.0 U	5.0 U	5.0 U
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	5.0 U	6.0 U	6.0 U	6.0 U	5.0 U	5.0 U
2-Chlorophenol	ug/L	NA	5.0 U	6.0 U	6.0 U	6.0 U	5.0 U	5.0 U
2-Methylnaphthalene	ug/L	NA	5.0 U	6.0 U	6.0 U	6.0 U	5.0 U	5.0 U
2-Methylphenol	ug/L	NA	5.0 U	6.0 U	6.0 U	6.0 U	5.0 U	5.0 U
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	20 U	24 U	24 U	24 U	20 U	20 U
2-Nitrophenol	ug/L	NA	5.0 U	6.0 U	6.0 U	6.0 U	5.0 U	5.0 U
2-Picoline	ug/L	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	20 U	4.8 U	24 U	4.8 U	20 U	4.0 U
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	20 U	24 U	24 U	24 U	20 U	20 U
4,6-Dinitro-2-methylphenol	ug/L	NA	20 U	24 U	24 U	24 U	20 U	20 U
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	5.0 U	6.0 U	6.0 U	6.0 U	5.0 U	5.0 U
4-Chloro-3-Methylphenol	ug/L	NA	5.0 U	6.0 U	6.0 U	6.0 U	5.0 U	5.0 U
4-Chloroaniline	ug/L	NA	20 U	12 U	24 U	12 U	20 U	10 U
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	5.0 U	6.0 U	6.0 U	6.0 U	5.0 U	5.0 U
4-Methylphenol	ug/L	NA	5.0 U	6.0 U	6.0 U	6.0 U	5.0 U	5.0 U

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Central Type III Landfill X-2A 8.6 - 11.6 12/12/06	Central Type III Landfill X-2B 22.1 - 25.1 07/15/95	Central Type III Landfill X-2B 22.1 - 25.1 12/12/06	Central Type III Landfill X-2C 43.1 - 46.1 07/15/95	Central Type III Landfill X-2C 43.1 - 46.1 12/12/06	Central Type III Landfill X-2DAUG 32 - 37 07/15/95	Central Type III Landfill X-2DAUG 32 - 37 12/13/06
Semivolatile Organics (Cont'd.)								
4-Nitroaniline	ug/L	NA	20 U	24 U	24 U	24 U	20 U	20 U
4-Nitrophenol	ug/L	NA	20 UJ	24 U	24 UJ	24 U	20 UJ	20 U
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	5.0 U	6.0 U	6.0 U	6.0 U	5.0 U	5.0 U
Acenaphthylene	ug/L	NA	5.0 U	6.0 U	6.0 U	6.0 U	5.0 U	5.0 U
Acetophenone	ug/L	NA	NA	6.0 U	NA	6.0 U	NA	5.0 U
Aniline	ug/L	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	5.0 U	6.0 U	6.0 U	6.0 U	5.0 U	5.0 U
Atrazine	ug/L	NA	NA	3.6 U	NA	3.6 U	NA	3.0 U
Benzaldehyde	ug/L	NA	NA	12 U	NA	12 U	NA	10 U
Benzo(a)anthracene	ug/L	NA	5.0 U	1.2 U	6.0 U	1.2 U	5.0 U	1.0 U
Benzo(a)pyrene	ug/L	NA	5.0 U	1.2 U	6.0 U	1.2 U	5.0 U	1.0 U
Benzo(b)fluoranthene	ug/L	NA	5.0 U	1.2 U	6.0 U	1.2 U	5.0 U	1.0 U
Benzo(g,h,i)perylene	ug/L	NA	5.0 U	1.2 U	6.0 U	1.2 U	5.0 U	1.0 U
Benzo(k)fluoranthene	ug/L	NA	5.0 U	1.2 U	6.0 U	1.2 U	5.0 U	1.0 U
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	12 U	NA	12 U	NA	10 U
bis(2-Chloroethoxy)methane	ug/L	NA	5.0 U	6.0 U	6.0 U	6.0 U	5.0 U	5.0 U
bis(2-Chloroethyl)ether	ug/L	NA	5.0 U	1.2 U	6.0 U	1.2 U	5.0 U	1.0 U
bis(2-Ethylhexyl)phthalate	ug/L	NA	5.0 U	6.0 U	6.0 U	6.0 U	5.0 U	0.92 J
Butylbenzylphthalate	ug/L	NA	5.0 U	6.0 U	6.0 U	6.0 U	5.0 U	5.0 UJ
Caprolactam	ug/L	NA	NA	12 U	NA	2.6 J	NA	10 U
Carbazole	ug/L	NA	10 U	12 U	12 U	12 U	10 U	10 U
Chrysene	ug/L	NA	5.0 U	1.2 U	6.0 U	1.2 U	5.0 U	1.0 U
Diallate	ug/L	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	5.0 U	2.4 U	6.0 U	2.4 U	5.0 U	2.0 U
Dibenzofuran	ug/L	NA	5.0 U	4.8 U	6.0 U	4.8 U	5.0 U	4.0 U
Diethylphthalate	ug/L	NA	5.0 U	6.0 U	6.0 U	6.0 U	5.0 U	R
Dimethylphthalate	ug/L	NA	5.0 U	6.0 U	6.0 U	6.0 U	5.0 U	R
Di-n-Butylphthalate	ug/L	NA	5.0 U	6.0 U	6.0 U	6.0 U	5.0 U	5.0 UJ
Di-n-Octylphthalate	ug/L	NA	5.0 U	6.0 U	6.0 U	6.0 U	5.0 U	5.0 U
Diphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	5.0 U	1.2 U	6.0 U	1.2 U	5.0 U	1.0 U
Fluorene	ug/L	NA	5.0 U	6.0 U	6.0 U	6.0 U	5.0 U	5.0 U
Hexachlorobenzene	ug/L	NA	5.0 U	0.24 U	6.0 U	0.24 U	5.0 U	0.20 U
Hexachlorobutadiene	ug/L	NA	5.0 U	1.2 U	6.0 U	1.2 U	5.0 U	1.0 U
Hexachlorocyclopentadiene	ug/L	NA	5.0 U	R	6.0 U	R	5.0 U	R
Hexachloroethane	ug/L	NA	5.0 U	6.0 U	6.0 U	6.0 U	5.0 U	5.0 U
Hexachloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	5.0 U	2.4 U	6.0 U	2.4 U	5.0 U	2.0 U

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Central Type III Landfill X-2A 8.6 - 11.6 12/12/06	Central Type III Landfill X-2B 22.1 - 25.1 07/15/95	Central Type III Landfill X-2B 22.1 - 25.1 12/12/06	Central Type III Landfill X-2C 43.1 - 46.1 07/15/95	Central Type III Landfill X-2C 43.1 - 46.1 12/12/06	Central Type III Landfill X-2DAUG 32 - 37 07/15/95	Central Type III Landfill X-2DAUG 32 - 37 12/13/06
Semivolatile Organics (Cont'd.)								
Isophorone	ug/L	NA	5.0 U	6.0 U	6.0 U	6.0 U	5.0 U	5.0 U
Isosafrole	ug/L	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	5.0 U	6.0 U	6.0 U	6.0 U	5.0 U	5.0 U
Nitrobenzene	ug/L	NA	5.0 U	3.6 U	6.0 U	3.6 U	5.0 U	3.0 U
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	5.0 U	6.0 U	6.0 U	6.0 U	5.0 U	5.0 U
N-Nitrosodiphenylamine	ug/L	NA	5.0 U	6.0 U	6.0 U	6.0 U	5.0 U	5.0 U
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	25 U	6.0 U	30 U	6.0 U	25 U	5.0 U
Phenacetin	ug/L	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	5.0 U	2.4 U	6.0 U	2.4 U	5.0 U	2.0 U
Phenol	ug/L	NA	5.0 U	6.0 U	6.0 U	6.0 U	5.0 U	5.0 U
Pronamide	ug/L	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	5.0 U	6.0 U	6.0 U	6.0 U	5.0 U	5.0 U
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	NA	5.0 U	6.0 U	6.0 U	6.0 U	5.0 U	5.0 U
PCBs								
Aroclor-1016	ug/L	NA	NA	0.20 U	NA	0.20 U	NA	0.20 U
Aroclor-1221	ug/L	NA	NA	0.20 U	NA	0.20 U	NA	0.20 U
Aroclor-1232	ug/L	NA	NA	0.20 U	NA	0.20 U	NA	0.20 U
Aroclor-1242	ug/L	NA	NA	0.20 U	NA	0.20 U	NA	0.20 U
Aroclor-1248	ug/L	NA	NA	0.20 U	NA	0.20 U	NA	0.20 U
Aroclor-1254	ug/L	NA	NA	0.20 U	NA	0.20 U	NA	0.20 U
Aroclor-1260	ug/L	NA	NA	0.20 U	NA	0.20 U	NA	0.20 U
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	0.20 U	NA	0.20 U	NA	0.20 U
PCBs-Dissolved								
Aroclor-1016 (Dissolved)	ug/L	NA	0.2 U	NA	0.2 U	NA	0.2 U	NA
Aroclor-1221 (Dissolved)	ug/L	NA	0.8 U*	NA	0.2 U	NA	0.2 U	NA
Aroclor-1232 (Dissolved)	ug/L	NA	0.4 U	NA	0.4 U	NA	0.4 U	NA
Aroclor-1242 (Dissolved)	ug/L	NA	0.2 U	NA	0.2 U	NA	0.2 U	NA

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
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SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Central Type III Landfill X-2A 8.6 - 11.6 12/12/06	Central Type III Landfill X-2B 22.1 - 25.1 07/15/95	Central Type III Landfill X-2B 22.1 - 25.1 12/12/06	Central Type III Landfill X-2C 43.1 - 46.1 07/15/95	Central Type III Landfill X-2C 43.1 - 46.1 12/12/06	Central Type III Landfill X-2DAUG 32 - 37 07/15/95	Central Type III Landfill X-2DAUG 32 - 37 12/13/06
PCBs-Dissolved (Cont'd.)								
Aroclor-1248 (Dissolved)	ug/L	NA	0.2 U	NA	0.2 U	NA	0.2 U	NA
Aroclor-1254 (Dissolved)	ug/L	NA	0.2 U	NA	0.2 U	NA	0.2 U	NA
Aroclor-1260 (Dissolved)	ug/L	NA	0.2 U	NA	0.2 U	NA	0.2 U	NA
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	0.8 U	NA	0.4 U	NA	0.4 U	NA
Organochlorine Pesticides								
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	NA	0.2 U	NA	0.2 U	NA	0.2 U	NA
Aroclor-1221	ug/L	NA	0.8 U*	NA	0.2 U	NA	0.2 U	NA
Aroclor-1232	ug/L	NA	0.4 U	NA	0.4 U	NA	0.4 U	NA
Aroclor-1242	ug/L	NA	0.2 U	NA	0.2 U	NA	0.2 U	NA
Aroclor-1248	ug/L	NA	0.2 U	NA	0.2 U	NA	0.2 U	NA
Aroclor-1254	ug/L	NA	0.2 U	NA	0.2 U	NA	0.2 U	NA
Aroclor-1260	ug/L	NA	0.2 U	NA	0.2 U	NA	0.2 U	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA
Organophosphate Pesticides								
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

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Organophosphate Pesticides (Cont'd.)								
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA
Herbicides								
2,4,5-T	ug/L	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans								
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA

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Dioxins/Furans (Cont'd.)								
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

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Volatile Organics						
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	6.2 U
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	6.2 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 UJ	1.0 UJ	6.2 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	6.2 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	210
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	6.2 U
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	6.2 U
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	R
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	6.2 U
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	6.2 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	6.2 U
1,2-Dichloroethene (total)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	120
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	6.2 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	6.2 U
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	6.2 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	R
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA
2-Butanone	ug/L	50 U	50 U	50 U	50 U	31 UJ
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	6.2 U
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA
2-Hexanone	ug/L	50 U	50 U	50 UJ	50 UJ	31 U
3-Chloropropene	ug/L	NA	NA	NA	NA	12 U
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U	50 U	50 UJ	50 UJ	31 U
Acetone	ug/L	50 U	50 U	50 U	50 U	62 UJ
Acetonitrile	ug/L	NA	NA	NA	NA	62 U
Acrolein	ug/L	NA	NA	NA	NA	R
Acrylonitrile	ug/L	NA	NA	NA	NA	62 U
Benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	6.2 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	6.2 U
Bromoform	ug/L	1.0 U	1.0 U	1.0 UJ	1.0 UJ	6.2 U
Bromomethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	6.2 U
Carbon Disulfide	ug/L	4.5 J	50 U	50 U	50 U	6.2 U
Carbon Tetrachloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	6.2 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	6.2 U

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Volatile Organics (Cont'd.)						
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	130
Chloroform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	6.2 U
Chloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	6.2 U
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	120
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	6.2 U
Cyclohexane	ug/L	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	6.2 U
Dibromomethane	ug/L	NA	NA	NA	NA	6.2 U
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	6.2 U
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	6.2 U
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	6.2 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	6.2 U
Isobutanol	ug/L	NA	NA	NA	NA	R
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	6.2 U
Methyl acetate	ug/L	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	6.2 U
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	6.2 U
Naphthalene	ug/L	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	R
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA
Styrene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	6.2 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	6.2 U
Toluene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	6.2 U
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	6.2 U
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 UJ	1.0 UJ	6.2 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	R
Trichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	12
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	6.2 U
Vinyl Acetate	ug/L	NA	NA	NA	NA	12 U
Vinyl Chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	150
Total 1,3-Dichloropropenes	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	6.2 U
Total Xylenes	ug/L	3.0 U	3.0 U	3.0 U	3.0 U	6.2 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Drum Remediation/Wetland Area MW-123S1 15 - 20 07/18/95	Drum Remediation/Wetland Area MW-123WT 3 - 8 07/18/95	Drum Remediation/Wetland Area MW-124S1 11.5 - 16.5 07/19/95	Drum Remediation/Wetland Area MW-124WT 2 - 7 07/19/95	Drum Remediation/Wetland Area MW-126WT 3 - 13 07/30/95
Semivolatile Organics						
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	5.0 U
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	50 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	R
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	5.0 U
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	50 U
1-Naphthylamine	ug/L	NA	NA	NA	NA	10 U
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	50 U
2,4,5-Trichlorophenol	ug/L	50 U	50 U	50 U	50 U	10 U
2,4,6-Trichlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dichlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dimethylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dinitrophenol	ug/L	20 U	20 U	20 U	20 U	20 U
2,4-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	5.0 U
2,6-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	100 U
2-Chloronaphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Chlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Methylnaphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Naphthylamine	ug/L	NA	NA	NA	NA	10 U
2-Nitroaniline	ug/L	20 U	20 U	20 U	20 U	20 U
2-Nitrophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Picoline	ug/L	NA	NA	NA	NA	20 U
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	20 U	20 U	20 U	20 U	20 U
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	10 U
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	20 U
3-Methylphenol	ug/L	NA	NA	NA	NA	5.0 U
3-Nitroaniline	ug/L	20 U	20 U	20 U	20 U	20 U
4,6-Dinitro-2-methylphenol	ug/L	20 U	20 U	20 U	20 U	20 U
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	50 U
4-Bromophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloro-3-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloroaniline	ug/L	20 U	20 U	20 U	20 U	10 U
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	10 U
4-Chlorophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

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Semivolatile Organics (Cont'd.)						
4-Nitroaniline	ug/L	20 U	20 U	20 U	20 U	20 UJ
4-Nitrophenol	ug/L	20 U	20 U	20 U	20 U	20 U
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	100 U
4-Phenylenediamine	ug/L	NA	NA	NA	NA	100 U
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	20 U
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	20 U
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	50 UJ
Acenaphthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acenaphthylene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetophenone	ug/L	NA	NA	NA	NA	10 U
Aniline	ug/L	NA	NA	NA	NA	10 U
Anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Atrazine	ug/L	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(a)pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(b)fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(g,h,i)perylene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(k)fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzyl Alcohol	ug/L	NA	NA	NA	NA	10 U
Biphenyl	ug/L	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Chloroethyl)ether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Ethylhexyl)phthalate	ug/L	5.0 U	6.0 U	5.0 U	5.0 U	5.0 U
Butylbenzylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Caprolactam	ug/L	NA	NA	NA	NA	NA
Carbazole	ug/L	10 U	10 U	10 U	10 U	NA
Chrysene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Diallate	ug/L	NA	NA	NA	NA	5.0 U
Dibenzo(a,h)anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibenzofuran	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Diethylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dimethylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Di-n-Butylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Di-n-Octylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Diphenylamine	ug/L	NA	NA	NA	NA	5.0 U
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	10 U
Fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Fluorene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobutadiene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorocyclopentadiene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachloroethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachloropropene	ug/L	NA	NA	NA	NA	100 U
Indeno(1,2,3-cd)pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

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Semivolatile Organics (Cont'd.)						
Isophorone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Isosafrole	ug/L	NA	NA	NA	NA	20 U
Methapyrilene	ug/L	NA	NA	NA	NA	50 U
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	10 U
Naphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Nitrobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	10 U
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	5.0 U
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	10 U
N-Nitroso-di-n-propylamine	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosodiphenylamine	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	10 U
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	10 U
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	10 U
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	10 U
o-Toluidine	ug/L	NA	NA	NA	NA	20 U
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	20 U
Pentachlorobenzene	ug/L	NA	NA	NA	NA	5.0 U
Pentachloroethane	ug/L	NA	NA	NA	NA	10 U
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	50 U
Pentachlorophenol	ug/L	25 U	25 U	25 U	25 U	25 U
Phenacetin	ug/L	NA	NA	NA	NA	20 U
Phenanthrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Phenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Pronamide	ug/L	NA	NA	NA	NA	20 U
Pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Pyridine	ug/L	NA	NA	NA	NA	10 U
Safrole	ug/L	NA	NA	NA	NA	20 U
Total Methylphenols	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
PCBs						
Aroclor-1016	ug/L	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA
PCBs-Dissolved						
Aroclor-1016 (Dissolved)	ug/L	0.2 UJ	0.2 UJ	0.2 U	0.2 U	0.2 U
Aroclor-1221 (Dissolved)	ug/L	0.2 UJ	0.2 UJ	0.2 U	0.2 U	0.2 U
Aroclor-1232 (Dissolved)	ug/L	0.4 UJ	0.4 UJ	0.4 U	0.4 U	0.4 U
Aroclor-1242 (Dissolved)	ug/L	0.2 UJ	0.2 UJ	0.2 U	0.2 U	0.2 U

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PCBs-Dissolved (Cont'd.)						
Aroclor-1248 (Dissolved)	ug/L	0.2 UJ	0.2 UJ	0.2 U	0.2 U	0.2 U
Aroclor-1254 (Dissolved)	ug/L	0.2 UJ	0.2 UJ	0.2 U	0.2 U	0.2 U
Aroclor-1260 (Dissolved)	ug/L	0.2 UJ	0.2 UJ	0.2 U	0.2 U	0.2 U
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Organochlorine Pesticides						
4,4'-DDD	ug/L	NA	NA	NA	NA	0.02 U
4,4'-DDE	ug/L	NA	NA	NA	NA	0.02 U
4,4'-DDT	ug/L	NA	NA	NA	NA	0.02 UJ
Aldrin	ug/L	NA	NA	NA	NA	0.01 U
Alpha-BHC	ug/L	NA	NA	NA	NA	0.01 U
Alpha-Chlordane	ug/L	NA	NA	NA	NA	0.02 U
Aroclor-1016	ug/L	0.2 UJ	0.2 UJ	0.2 U	0.2 U	0.2 U
Aroclor-1221	ug/L	0.2 UJ	0.2 UJ	0.2 U	0.2 U	0.2 U
Aroclor-1232	ug/L	0.4 UJ	0.4 UJ	0.4 U	0.4 U	0.4 U
Aroclor-1242	ug/L	0.2 UJ	0.2 UJ	0.2 U	0.2 U	0.2 U
Aroclor-1248	ug/L	0.2 UJ	0.2 UJ	0.2 U	0.2 U	0.2 U
Aroclor-1254	ug/L	0.2 UJ	0.2 UJ	0.2 U	0.2 U	0.2 U
Aroclor-1260	ug/L	0.2 UJ	0.2 UJ	0.2 U	0.2 U	0.2 U
Aroclor-1262	ug/L	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	0.01 U
Delta-BHC	ug/L	NA	NA	NA	NA	0.01 U
Dieldrin	ug/L	NA	NA	NA	NA	0.02 U
Endosulfan I	ug/L	NA	NA	NA	NA	0.01 U
Endosulfan II	ug/L	NA	NA	NA	NA	0.02 U
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	0.02 U
Endrin	ug/L	NA	NA	NA	NA	0.02 UJ
Endrin Aldehyde	ug/L	NA	NA	NA	NA	0.02 U
Endrin Ketone	ug/L	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	0.01 U
Gamma-Chlordane	ug/L	NA	NA	NA	NA	0.02 U
Heptachlor	ug/L	NA	NA	NA	NA	0.01 UJ
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	0.01 U
Isodrin	ug/L	NA	NA	NA	NA	0.1 UJ
Kepone	ug/L	NA	NA	NA	NA	1 UJ
Methoxychlor	ug/L	NA	NA	NA	NA	0.1 UJ
Toxaphene	ug/L	NA	NA	NA	NA	1 U
Organophosphate Pesticides						
4,4'-DDD	ug/L	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA

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Organophosphate Pesticides (Cont'd.)						
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	1 U
Disulfoton	ug/L	NA	NA	NA	NA	1 U
Endosulfan I	ug/L	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	1 U
Famphur	ug/L	NA	NA	NA	NA	1 U
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	1 U
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	1 U
Phorate	ug/L	NA	NA	NA	NA	1 U
Sulfotep	ug/L	NA	NA	NA	NA	1 U
Thionazin	ug/L	NA	NA	NA	NA	1 U
Toxaphene	ug/L	NA	NA	NA	NA	NA
Herbicides						
2,4,5-T	ug/L	NA	NA	NA	NA	1 UJ
2,4,5-TP	ug/L	NA	NA	NA	NA	1 UJ
2,4-D	ug/L	NA	NA	NA	NA	4 UJ
Dinoseb	ug/L	NA	NA	NA	NA	0.6 UJ
Dioxins/Furans						
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Drum Remediation/Wetland Area MW-123S1 15 - 20 07/18/95	Drum Remediation/Wetland Area MW-123WT 3 - 8 07/18/95	Drum Remediation/Wetland Area MW-124S1 11.5 - 16.5 07/19/95	Drum Remediation/Wetland Area MW-124WT 2 - 7 07/19/95	Drum Remediation/Wetland Area MW-126WT 3 - 13 07/30/95
Dioxins/Furans (Cont'd.)						
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	0.0044 U
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	0.0069 U
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	0.012 U
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	0.0082 U
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	0.015 U
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	0.0046 U
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	0.0044 U
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

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Volatile Organics						
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	8.3 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	8.3 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	8.3 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	180	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	8.3 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	8.3 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethene (total)	ug/L	220	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	8.3 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA
2-Butanone	ug/L	420 U	50 U	50 U	50 U	50 UJ
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA
2-Hexanone	ug/L	420 U	R	R	R	R
3-Chloropropene	ug/L	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	420 U	50 U	50 U	50 U	50 U
Acetone	ug/L	830 U	50 U	50 U	R	50 UJ
Acetonitrile	ug/L	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA
Benzene	ug/L	42 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	8.3 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	8.3 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	ug/L	8.3 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Disulfide	ug/L	420 U	50 U	50 U	50 U	50 U
Carbon Tetrachloride	ug/L	8.3 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	8.3 U	1.0 U	1.0 U	1.0 U	1.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Drum Remediation/Wetland Area MW-126WT 3 - 13 06/06/96	Drum Remediation/Wetland Area MW-127S1 16.5 - 21.5 07/26/95	Drum Remediation/Wetland Area MW-127WT 2 - 12 07/26/95	Drum Remediation/Wetland Area TW-223S1 02/01/95	Drum Remediation/Wetland Area TW-223S2 02/01/95
Volatile Organics (Cont'd.)						
Chloroethane	ug/L	40	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	ug/L	8.3 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	ug/L	8.3 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	220	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	8.3 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	8.3 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	8.3 U	1.0 U	1.0 U	1.0 U	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	42 U	1.0 U	1.0 U	1.0 U	1.0 U
Naphthalene	ug/L	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA
Styrene	ug/L	8.3 U	1.0 U	1.0 U	1.0 U	1.0 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	8.3 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	ug/L	8.3 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	8.3 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	8.3 U	1.0 UJ	1.0 UJ	1.0 U	1.0 UJ
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA
Trichloroethene	ug/L	17	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	270	1.0 U	1.0 U	1.0 U	1.0 U
Total 1,3-Dichloropropenes	ug/L	8.3 U	1.0 U	1.0 U	1.0 U	1.0 U
Total Xylenes	ug/L	25 U	3.0 U	3.0 U	3.0 U	3.0 U

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Drum Remediation/Wetland Area MW-126WT 3 - 13 06/06/96	Drum Remediation/Wetland Area MW-127S1 16.5 - 21.5 07/26/95	Drum Remediation/Wetland Area MW-127WT 2 - 12 07/26/95	Drum Remediation/Wetland Area TW-223S1 02/01/95	Drum Remediation/Wetland Area TW-223S2 02/01/95
Semivolatile Organics						
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	5.0 U	5.0 UJ	5.0 UJ	5.0 U	5.0 U
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	50 U	50 U	50 UJ	50 U	50 U
2,4,6-Trichlorophenol	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U
2,4-Dichlorophenol	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U
2,4-Dimethylphenol	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U
2,4-Dinitrophenol	ug/L	20 UJ	20 U	20 UJ	20 U	20 U
2,4-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U
2-Chlorophenol	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U
2-Methylnaphthalene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U
2-Methylphenol	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	20 U	20 U	20 UJ	20 U	20 U
2-Nitrophenol	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U
2-Picoline	ug/L	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	20 U	20 U	20 UJ	20 U	20 U
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	20 U	20 U	20 UJ	20 U	20 U
4,6-Dinitro-2-methylphenol	ug/L	20 U	20 U	20 UJ	20 U	20 U
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U
4-Chloro-3-Methylphenol	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U
4-Chloroaniline	ug/L	20 U	20 U	20 UJ	20 U	20 U
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U
4-Methylphenol	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U

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SAGINAW, MICHIGAN

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Semivolatile Organics (Cont'd.)						
4-Nitroaniline	ug/L	20 U	20 U	20 UJ	20 U	20 U
4-Nitrophenol	ug/L	20 U	20 U	20 UJ	20 U	20 U
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA
Acenaphthene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U
Acenaphthylene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U
Acetophenone	ug/L	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA
Anthracene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U
Atrazine	ug/L	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U
Benzo(a)pyrene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U
Benzo(b)fluoranthene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U
Benzo(g,h,i)perylene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U
Benzo(k)fluoranthene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U
bis(2-Chloroethyl)ether	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U
bis(2-Ethylhexyl)phthalate	ug/L	7.2 J	0.83 J	7.9 UJ	1.1 J	5.0 U
Butylbenzylphthalate	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U
Caprolactam	ug/L	NA	NA	NA	NA	NA
Carbazole	ug/L	10 U	10 U	10 UJ	5.0 U	5.0 U
Chrysene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U
Diallate	ug/L	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U
Dibenzofuran	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U
Diethylphthalate	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U
Dimethylphthalate	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U
Di-n-Butylphthalate	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U
Di-n-Octylphthalate	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U
Diphenylamine	ug/L	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA
Fluoranthene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U
Fluorene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U
Hexachlorobenzene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U
Hexachlorobutadiene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U
Hexachlorocyclopentadiene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U
Hexachloroethane	ug/L	2.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U
Hexachloropropene	ug/L	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U

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Semivolatile Organics (Cont'd.)						
Isophorone	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U
Isosafrole	ug/L	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA
Naphthalene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U
Nitrobenzene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U
N-Nitrosodiphenylamine	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	25 U	25 U	25 UJ	20 U	20 U
Phenacetin	ug/L	NA	NA	NA	NA	NA
Phenanthrene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U
Phenol	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U
Pronamide	ug/L	NA	NA	NA	NA	NA
Pyrene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U
Pyridine	ug/L	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
PCBs						
Aroclor-1016	ug/L	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA
PCBs-Dissolved						
Aroclor-1016 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 UJ	0.2 U
Aroclor-1221 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 UJ	0.2 U
Aroclor-1232 (Dissolved)	ug/L	0.4 U	0.4 U	0.4 U	0.4 UJ	0.4 U
Aroclor-1242 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 UJ	0.2 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Drum Remediation/Wetland Area MW-126WT 3 - 13 06/06/96	Drum Remediation/Wetland Area MW-127S1 16.5 - 21.5 07/26/95	Drum Remediation/Wetland Area MW-127WT 2 - 12 07/26/95	Drum Remediation/Wetland Area TW-223S1 02/01/95	Drum Remediation/Wetland Area TW-223S2 02/01/95
PCBs-Dissolved (Cont'd.)						
Aroclor-1248 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 UJ	0.2 U
Aroclor-1254 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 UJ	0.2 U
Aroclor-1260 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 UJ	0.2 U
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Organochlorine Pesticides						
4,4'-DDD	ug/L	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1221	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1232	ug/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Aroclor-1242	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1248	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1254	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1260	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1262	ug/L	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA
Organophosphate Pesticides						
4,4'-DDD	ug/L	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA

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Organophosphate Pesticides (Cont'd.)						
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA
Herbicides						
2,4,5-T	ug/L	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA
Dioxins/Furans						
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

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Dioxins/Furans (Cont'd.)						
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA

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Volatile Organics						
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethene (total)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA
2-Butanone	ug/L	50 UJ	50 UJ	50 UJ	50 U	50 UJ
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA
2-Hexanone	ug/L	R	R	R	R	R
3-Chloropropene	ug/L	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U	50 U	50 U	50 U	50 U
Acetone	ug/L	50 UJ	R	R	50 UJ	50 UJ
Acetonitrile	ug/L	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA
Benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Disulfide	ug/L	50 U	50 U	50 U	50 U	50 U
Carbon Tetrachloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

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SAGINAW, MICHIGAN

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Volatile Organics (Cont'd.)						
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Naphthalene	ug/L	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA
Styrene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total 1,3-Dichloropropenes	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total Xylenes	ug/L	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U

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Semivolatile Organics						
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	50 U	50 U	50 U	50 U	50 U
2,4,6-Trichlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dichlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dimethylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dinitrophenol	ug/L	20 U	20 U	20 U	20 U	20 U
2,4-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Chlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Methylnaphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	20 U	20 U	20 U	20 U	20 U
2-Nitrophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Picoline	ug/L	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	20 U	20 U	20 U	20 U	20 U
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	20 U	20 U	20 U	20 U	20 U
4,6-Dinitro-2-methylphenol	ug/L	20 U	20 U	20 U	20 U	20 U
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloro-3-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloroaniline	ug/L	20 U	20 U	20 U	20 U	20 U
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Drum Remediation/Wetland Area TW-223WT 02/01/95	Drum Remediation/Wetland Area TW-224S1 02/02/95	Drum Remediation/Wetland Area TW-224WT 02/02/95	Drum Remediation/Wetland Area TW-225S1 02/03/95	Drum Remediation/Wetland Area TW-225WT 02/02/95
Semivolatile Organics (Cont'd.)						
4-Nitroaniline	ug/L	20 U	20 U	20 U	20 U	20 U
4-Nitrophenol	ug/L	20 U	20 U	20 U	20 U	20 U
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA
Acenaphthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acenaphthylene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetophenone	ug/L	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA
Anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Atrazine	ug/L	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(a)pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(b)fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(g,h,i)perylene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(k)fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Chloroethyl)ether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Ethylhexyl)phthalate	ug/L	5.0 U	1.0 J	4.3 J	3.5 J	5.0 U
Butylbenzylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Caprolactam	ug/L	NA	NA	NA	NA	NA
Carbazole	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chrysene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Diallate	ug/L	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibenzofuran	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Diethylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dimethylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Di-n-Butylphthalate	ug/L	5.0 U	1.0 J	0.94 J	1.4 J	5.0 U
Di-n-Octylphthalate	ug/L	5.0 U	5.0 U	5.0 U	3.9 J	5.0 U
Diphenylamine	ug/L	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA
Fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Fluorene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobutadiene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorocyclopentadiene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachloroethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachloropropene	ug/L	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

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Semivolatile Organics (Cont'd.)						
Isophorone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Isosafrole	ug/L	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA
Naphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Nitrobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosodiphenylamine	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	20 U	20 U	20 U	20 U	20 U
Phenacetin	ug/L	NA	NA	NA	NA	NA
Phenanthrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Phenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Pronamide	ug/L	NA	NA	NA	NA	NA
Pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Pyridine	ug/L	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
PCBs						
Aroclor-1016	ug/L	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA
PCBs-Dissolved						
Aroclor-1016 (Dissolved)	ug/L	0.2 UJ	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1221 (Dissolved)	ug/L	0.2 UJ	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1232 (Dissolved)	ug/L	0.4 UJ	0.4 U	0.4 U	0.4 U	0.4 U
Aroclor-1242 (Dissolved)	ug/L	0.2 UJ	0.2 U	0.2 U	0.2 U	0.2 U

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TABLE A-1
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ORGANIC COMPOUNDS

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SAGINAW, MICHIGAN

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PCBs-Dissolved (Cont'd.)						
Aroclor-1248 (Dissolved)	ug/L	0.28 J	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1254 (Dissolved)	ug/L	0.2 UJ	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1260 (Dissolved)	ug/L	0.2 UJ	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	0.28 J	0.4 U	0.4 U	0.4 U	0.4 U
Organochlorine Pesticides						
4,4'-DDD	ug/L	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	0.2 UJ	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1221	ug/L	0.2 UJ	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1232	ug/L	0.4 UJ	0.4 U	0.4 U	0.4 U	0.4 U
Aroclor-1242	ug/L	0.2 UJ	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1248	ug/L	0.2 UJ	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1254	ug/L	0.2 UJ	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1260	ug/L	0.2 UJ	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1262	ug/L	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA
Organophosphate Pesticides						
4,4'-DDD	ug/L	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA

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Organophosphate Pesticides (Cont'd.)						
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA
Herbicides						
2,4,5-T	ug/L	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA
Dioxins/Furans						
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA

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TABLE A-1
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SAGINAW, MICHIGAN

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Dioxins/Furans (Cont'd.)						
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Drum Remediation/Wetland Area TW-226S1 02/02/95	Drum Remediation/Wetland Area TW-241WT 5 - 10 08/08/98	Drum Remediation/Wetland Area TW-242WT 5.1 - 10.1 08/08/98	Drum Remediation/Wetland Area TWW-1 1.5 - 6.5 01/25/97	Drum Remediation/Wetland Area TWW-1 1.5 - 6.5 08/08/98
Volatile Organics						
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	330 U	200 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	330 U	200 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	330 U	200 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	330 U	200 U
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	330 U	200 U
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	NA	200 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	330 U	200 U
1,2-Dichloroethene (total)	ug/L	1.0 U	1.0 U	1.5	NA	8,000
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	330 U	200 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	NA	200 U
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	NA	200 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA
2-Butanone	ug/L	50 U	50 U	50 U	17,000 U	2,000 U
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA
2-Hexanone	ug/L	R	50 U	50 U	17,000 U	2,000 U
3-Chloropropene	ug/L	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U	50 U	50 U	17,000 U	2,000 U
Acetone	ug/L	R	100 U	100 U	33,000 U	2,000 U
Acetonitrile	ug/L	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA
Benzene	ug/L	1.0 U	5.0 U	5.0 U	1,700 U	1,000 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	330 U	200 U
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	330 U	200 U
Bromomethane	ug/L	1.0 U	1.0 U	1.0 U	330 U	200 U
Carbon Disulfide	ug/L	50 U	50 U	50 U	17,000 U	1,000 U
Carbon Tetrachloride	ug/L	1.0 U	1.0 U	1.0 U	330 U	200 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	330 U	200 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Drum Remediation/Wetland Area TW-226S1 02/02/95	Drum Remediation/Wetland Area TW-241WT 5 - 10 08/08/98	Drum Remediation/Wetland Area TW-242WT 5.1 - 10.1 08/08/98	Drum Remediation/Wetland Area TWW-1 1.5 - 6.5 01/25/97	Drum Remediation/Wetland Area TWW-1 1.5 - 6.5 08/08/98
Volatile Organics (Cont'd.)						
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	330 U	200 U
Chloroform	ug/L	1.0 U	1.0 U	1.0 U	330 U	200 U
Chloromethane	ug/L	1.0 U	1.0 U	1.0 U	330 U	200 U
cis-1,2-Dichloroethene	ug/L	1.0 U	NA	NA	9,600	NA
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	330 U	200 U
Cyclohexane	ug/L	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	330 U	200 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	330 U	200 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	1.0 U	5.0 U	5.0 U	1,700 U	1,000 U
Naphthalene	ug/L	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA
Styrene	ug/L	1.0 U	1.0 U	1.0 U	330 U	200 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1.0 U	1.0 U	1.0 U	330 U	200 U
Toluene	ug/L	1.0 U	1.0 U	1.0 U	330 U	200 U
trans-1,2-Dichloroethene	ug/L	1.0 U	NA	NA	330 U	NA
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	330 U	200 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1.0 U	1.0 U	1.0 U	630	200 U
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	1.0 U	1.0 U	1.0 U	2,000	1,700
Total 1,3-Dichloropropenes	ug/L	1.0 U	1.0 U	1.0 U	330 U	200 U
Total Xylenes	ug/L	3.0 U	3.0 U	3.0 U	1,000 U	600 U

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TABLE A-1
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GENERAL MOTORS CORPORATION
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SAGINAW, MICHIGAN

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Semivolatile Organics						
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5.0 U	NA	NA	5.0 U	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	5.0 U	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	5.0 U	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	5.0 U	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	5.0 U	NA	NA	5.0 U	NA
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	50 U	NA	NA	50 U	NA
2,4,6-Trichlorophenol	ug/L	5.0 U	NA	NA	5.0 U	NA
2,4-Dichlorophenol	ug/L	5.0 U	NA	NA	5.0 U	NA
2,4-Dimethylphenol	ug/L	5.0 U	NA	NA	5.0 U	NA
2,4-Dinitrophenol	ug/L	20 U	NA	NA	20 U	NA
2,4-Dinitrotoluene	ug/L	5.0 U	NA	NA	5.0 U	NA
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	5.0 U	NA	NA	5.0 U	NA
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	5.0 U	NA	NA	5.0 U	NA
2-Chlorophenol	ug/L	5.0 U	NA	NA	5.0 U	NA
2-Methylnaphthalene	ug/L	5.0 U	NA	NA	5.0 U	NA
2-Methylphenol	ug/L	5.0 U	NA	NA	5.0 U	NA
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	20 U	NA	NA	20 U	NA
2-Nitrophenol	ug/L	5.0 U	NA	NA	5.0 U	NA
2-Picoline	ug/L	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	20 U	NA	NA	20 U	NA
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	20 U	NA	NA	20 U	NA
4,6-Dinitro-2-methylphenol	ug/L	20 U	NA	NA	20 U	NA
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	5.0 U	NA	NA	5.0 U	NA
4-Chloro-3-Methylphenol	ug/L	5.0 U	NA	NA	5.0 U	NA
4-Chloroaniline	ug/L	20 U	NA	NA	20 U	NA
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	5.0 U	NA	NA	5.0 U	NA
4-Methylphenol	ug/L	5.0 U	NA	NA	5.0 U	NA

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Semivolatile Organics (Cont'd.)						
4-Nitroaniline	ug/L	20 U	NA	NA	20 U	NA
4-Nitrophenol	ug/L	20 U	NA	NA	20 U	NA
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA
Acenaphthene	ug/L	5.0 U	NA	NA	5.0 U	NA
Acenaphthylene	ug/L	5.0 U	NA	NA	5.0 U	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA
Anthracene	ug/L	5.0 U	NA	NA	5.0 U	NA
Atrazine	ug/L	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	5.0 U	NA	NA	5.0 U	NA
Benzo(a)pyrene	ug/L	5.0 U	NA	NA	5.0 U	NA
Benzo(b)fluoranthene	ug/L	5.0 U	NA	NA	5.0 U	NA
Benzo(g,h,i)perylene	ug/L	5.0 U	NA	NA	5.0 U	NA
Benzo(k)fluoranthene	ug/L	5.0 U	NA	NA	5.0 U	NA
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	5.0 U	NA	NA	5.0 U	NA
bis(2-Chloroethyl)ether	ug/L	5.0 U	NA	NA	5.0 U	NA
bis(2-Ethylhexyl)phthalate	ug/L	17	NA	NA	5.0 U	NA
Butylbenzylphthalate	ug/L	5.0 U	NA	NA	5.0 U	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA
Carbazole	ug/L	5.0 U	NA	NA	10 U	NA
Chrysene	ug/L	5.0 U	NA	NA	5.0 U	NA
Diallate	ug/L	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	5.0 U	NA	NA	5.0 U	NA
Dibenzofuran	ug/L	5.0 U	NA	NA	5.0 U	NA
Diethylphthalate	ug/L	5.0 U	NA	NA	5.0 U	NA
Dimethylphthalate	ug/L	5.0 U	NA	NA	5.0 U	NA
Di-n-Butylphthalate	ug/L	5.0 U	NA	NA	5.0 U	NA
Di-n-Octylphthalate	ug/L	5.0 U	NA	NA	5.0 U	NA
Diphenylamine	ug/L	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA
Fluoranthene	ug/L	5.0 U	NA	NA	5.0 U	NA
Fluorene	ug/L	5.0 U	NA	NA	5.0 U	NA
Hexachlorobenzene	ug/L	5.0 U	NA	NA	5.0 U	NA
Hexachlorobutadiene	ug/L	5.0 U	NA	NA	5.0 U	NA
Hexachlorocyclopentadiene	ug/L	5.0 U	NA	NA	5.0 U	NA
Hexachloroethane	ug/L	5.0 U	NA	NA	2.0 U	NA
Hexachloropropene	ug/L	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	5.0 U	NA	NA	5.0 U	NA

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SAGINAW, MICHIGAN

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Semivolatile Organics (Cont'd.)						
Isophorone	ug/L	5.0 U	NA	NA	5.0 U	NA
Isosafrole	ug/L	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA
Naphthalene	ug/L	5.0 U	NA	NA	5.0 U	NA
Nitrobenzene	ug/L	5.0 U	NA	NA	5.0 U	NA
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	5.0 U	NA	NA	5.0 U	NA
N-Nitrosodiphenylamine	ug/L	5.0 U	NA	NA	5.0 U	NA
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	20 U	NA	NA	25 U	NA
Phenacetin	ug/L	NA	NA	NA	NA	NA
Phenanthrene	ug/L	5.0 U	NA	NA	5.0 U	NA
Phenol	ug/L	5.0 U	NA	NA	5.0 U	NA
Pronamide	ug/L	NA	NA	NA	NA	NA
Pyrene	ug/L	5.0 U	NA	NA	5.0 U	NA
Pyridine	ug/L	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	5.0 U	NA	NA	5.0 U	NA
PCBs						
Aroclor-1016	ug/L	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA
PCBs-Dissolved						
Aroclor-1016 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1221 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1232 (Dissolved)	ug/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Aroclor-1242 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U

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PCBs-Dissolved (Cont'd.)						
Aroclor-1248 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1254 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1260 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Organochlorine Pesticides						
4,4'-DDD	ug/L	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1221	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1232	ug/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Aroclor-1242	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1248	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1254	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1260	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1262	ug/L	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA
Organophosphate Pesticides						
4,4'-DDD	ug/L	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Drum Remediation/Wetland Area TW-226S1 02/02/95	Drum Remediation/Wetland Area TW-241WT 5 - 10 08/08/98	Drum Remediation/Wetland Area TW-242WT 5.1 - 10.1 08/08/98	Drum Remediation/Wetland Area TWW-1 1.5 - 6.5 01/25/97	Drum Remediation/Wetland Area TWW-1 1.5 - 6.5 08/08/98
Organophosphate Pesticides (Cont'd.)						
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA
Herbicides						
2,4,5-T	ug/L	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA
Dioxins/Furans						
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

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Dioxins/Furans (Cont'd.)						
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA

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Volatile Organics						
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	250 UD [250 UD]	250 U	1.0 U [1.0 U]	NA	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	250 UD [250 UD]	250 UJ	1.0 U [1.0 U]	NA	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	250 UD [250 UD]	250 U	1.0 U [1.0 U]	NA	1.0 U
1,1-Dichloroethane	ug/L	250 UD [250 UD]	250 U	1.0 U [1.0 U]	NA	1.0 U
1,1-Dichloroethene	ug/L	250 UD [250 UD]	51 J	1.0 U [1.0 U]	NA	1.0 U
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	1.0 U [1.0 U]	NA	1.0 U
1,2-Dichloroethane	ug/L	250 UD [250 UD]	250 U	1.0 U [1.0 U]	NA	1.0 U
1,2-Dichloroethene (total)	ug/L	11,000 D [10,000 D]	8,800	NA	NA	1.0 U
1,2-Dichloropropane	ug/L	250 UD [250 UD]	250 U	1.0 U [1.0 U]	NA	1.0 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	1.0 U [1.0 U]	NA	1.0 U
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	1.0 U [1.0 U]	NA	1.0 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA
2-Butanone	ug/L	1,300 UD [1,300 UD]	2,500 U	50 U [50 U]	NA	50 U
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA
2-Hexanone	ug/L	1,300 UD [1,300 UD]	2,500 U	50 U [50 U]	NA	R
3-Chloropropene	ug/L	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	1,300 UD [1,300 UD]	2,500 U	50 U [50 U]	NA	50 U
Acetone	ug/L	1,300 UJD [1,300 UJD]	2,500 U	100 U [100 U]	NA	5.3 J
Acetonitrile	ug/L	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA
Benzene	ug/L	250 UD [250 UD]	250 U	5.0 U [5.0 U]	NA	1.0 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	250 UD [250 UD]	250 U	1.0 U [1.0 U]	NA	1.0 U
Bromoform	ug/L	250 UD [250 UD]	250 U	1.0 U [1.0 U]	NA	1.0 U
Bromomethane	ug/L	250 UJD [250 UD]	250 U	1.0 U [1.0 U]	NA	1.0 U
Carbon Disulfide	ug/L	250 UD [250 UD]	250 U	50 U [50 U]	NA	50 U
Carbon Tetrachloride	ug/L	250 UD [250 UD]	250 U	1.0 U [1.0 U]	NA	1.0 U
Chlorobenzene	ug/L	250 UD [250 UD]	250 U	1.0 U [1.0 U]	NA	1.0 U

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SAGINAW, MICHIGAN

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Volatile Organics (Cont'd.)						
Chloroethane	ug/L	250 UJD [250 UD]	250 U	1.0 U [1.0 U]	NA	1.0 U
Chloroform	ug/L	250 UD [250 UD]	250 U	1.0 U [1.0 U]	NA	1.0 U
Chloromethane	ug/L	250 UJD [250 UD]	250 U	1.0 U [1.0 U]	NA	1.0 U
cis-1,2-Dichloroethene	ug/L	NA	8,800	1.0 U [1.0 U]	NA	1.0 U
cis-1,3-Dichloropropene	ug/L	250 UD [250 UD]	250 U	1.0 U [1.0 U]	NA	1.0 U
Cyclohexane	ug/L	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	250 UD [250 UD]	250 U	1.0 U [1.0 U]	NA	1.0 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	250 UD [250 UD]	250 U	1.0 U [1.0 U]	NA	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	500 UD [500 UD]	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	1,300 UJD [1,300 UJD]	250 U	5.0 U [5.0 U]	NA	1.0 U
Naphthalene	ug/L	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA
o-Xylene	ug/L	250 UD [250 UD]	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA
Styrene	ug/L	250 UD [250 UD]	250 U	1.0 U [1.0 U]	NA	1.0 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	250 UD [250 UD]	250 U	1.0 U [1.0 U]	NA	1.0 U
Toluene	ug/L	250 UD [250 UD]	250 U	1.0 U [1.0 U]	NA	1.0 U
trans-1,2-Dichloroethene	ug/L	NA	40 J	1.0 U [1.0 U]	NA	1.0 U
trans-1,3-Dichloropropene	ug/L	250 UD [250 UD]	250 U	1.0 U [1.0 U]	NA	1.0 UJ
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA
Trichloroethene	ug/L	250 UD [250 UD]	250 U	1.0 U [1.0 U]	NA	1.0 U
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	330 D [390 D]	2,300	1.0 U [1.0 U]	NA	1.0 U
Total 1,3-Dichloropropenes	ug/L	250 U [250 U]	250 U	1.0 U [1.0 U]	NA	1.0 U
Total Xylenes	ug/L	500 U [500 U]	250 U	3.0 U [3.0 U]	NA	3.0 U

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Semivolatile Organics						
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	5.0 U [5.0 U]	NA	5.0 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	NA	NA	5.0 U [5.0 U]	NA	5.0 UJ
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	50 U [50 U]	NA	50 U
2,4,6-Trichlorophenol	ug/L	NA	NA	5.0 U [5.0 U]	NA	5.0 U
2,4-Dichlorophenol	ug/L	NA	NA	5.0 U [5.0 U]	NA	5.0 U
2,4-Dimethylphenol	ug/L	NA	NA	5.0 U [5.0 U]	NA	5.0 U
2,4-Dinitrophenol	ug/L	NA	NA	20 U [20 U]	NA	20 U
2,4-Dinitrotoluene	ug/L	NA	NA	5.0 U [5.0 U]	NA	5.0 U
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	NA	5.0 U [5.0 U]	NA	5.0 U
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	5.0 U [5.0 U]	NA	5.0 U
2-Chlorophenol	ug/L	NA	NA	5.0 U [5.0 U]	NA	5.0 U
2-Methylnaphthalene	ug/L	NA	NA	5.0 U [5.0 U]	NA	5.0 U
2-Methylphenol	ug/L	NA	NA	5.0 U [5.0 U]	NA	5.0 U
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	20 U [20 U]	NA	20 U
2-Nitrophenol	ug/L	NA	NA	5.0 U [5.0 U]	NA	5.0 U
2-Picoline	ug/L	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	20 U [20 U]	NA	20 U
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	20 U [20 U]	NA	20 U
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	20 U [20 U]	NA	20 U
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	5.0 U [5.0 U]	NA	5.0 U
4-Chloro-3-Methylphenol	ug/L	NA	NA	5.0 U [5.0 U]	NA	5.0 U
4-Chloroaniline	ug/L	NA	NA	20 U [20 U]	NA	20 U
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	5.0 U [5.0 U]	NA	5.0 U
4-Methylphenol	ug/L	NA	NA	5.0 U [5.0 U]	NA	5.0 U

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Drum Remediation/Wetland Area TWW-1 1.5 - 6.5 05/18/99	Drum Remediation/Wetland Area TWW-1 1.5 - 6.5 05/21/00	Drum Remediation/Wetland Area TWW-2 1.5 - 6.5 01/23/97	Drum Remediation/Wetland Area TWW-2 1.5 - 6.5 01/25/97	Drum Remediation/Wetland Area X-11AR 2 - 12 07/26/95
Semivolatile Organics (Cont'd.)						
4-Nitroaniline	ug/L	NA	NA	20 U [20 U]	NA	20 U
4-Nitrophenol	ug/L	NA	NA	20 U [20 U]	NA	20 U
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	5.0 U [5.0 U]	NA	5.0 U
Acenaphthylene	ug/L	NA	NA	5.0 U [5.0 U]	NA	5.0 U
Acetophenone	ug/L	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	5.0 U [5.0 U]	NA	5.0 U
Atrazine	ug/L	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	NA	5.0 U [5.0 U]	NA	5.0 U
Benzo(a)pyrene	ug/L	NA	NA	5.0 U [5.0 U]	NA	5.0 U
Benzo(b)fluoranthene	ug/L	NA	NA	5.0 U [5.0 U]	NA	5.0 U
Benzo(g,h,i)perylene	ug/L	NA	NA	5.0 U [5.0 U]	NA	5.0 U
Benzo(k)fluoranthene	ug/L	NA	NA	5.0 U [5.0 U]	NA	5.0 U
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	5.0 U [5.0 U]	NA	5.0 U
bis(2-Chloroethyl)ether	ug/L	NA	NA	5.0 U [5.0 U]	NA	5.0 U
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	5.0 U [5.0 U]	NA	5.0 U
Butylbenzylphthalate	ug/L	NA	NA	5.0 U [5.0 U]	NA	5.0 U
Caprolactam	ug/L	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	10 U [10 U]	NA	10 U
Chrysene	ug/L	NA	NA	5.0 U [5.0 U]	NA	5.0 U
Diallate	ug/L	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	5.0 U [5.0 U]	NA	5.0 U
Dibenzofuran	ug/L	NA	NA	5.0 U [5.0 U]	NA	5.0 U
Diethylphthalate	ug/L	NA	NA	5.0 U [2.1 J]	NA	5.0 U
Dimethylphthalate	ug/L	NA	NA	5.0 U [5.0 U]	NA	5.0 U
Di-n-Butylphthalate	ug/L	NA	NA	5.0 U [5.0 U]	NA	5.0 U
Di-n-Octylphthalate	ug/L	NA	NA	5.0 U [5.0 U]	NA	5.0 U
Diphenylamine	ug/L	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	5.0 U [5.0 U]	NA	5.0 U
Fluorene	ug/L	NA	NA	5.0 U [5.0 U]	NA	5.0 U
Hexachlorobenzene	ug/L	NA	NA	5.0 U [5.0 U]	NA	5.0 U
Hexachlorobutadiene	ug/L	NA	NA	5.0 U [5.0 U]	NA	5.0 U
Hexachlorocyclopentadiene	ug/L	NA	NA	5.0 U [5.0 U]	NA	5.0 U
Hexachloroethane	ug/L	NA	NA	2.0 U [2.0 U]	NA	5.0 U
Hexachloropropene	ug/L	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	5.0 U [5.0 U]	NA	5.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

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Semivolatile Organics (Cont'd.)						
Isophorone	ug/L	NA	NA	5.0 U [5.0 U]	NA	5.0 U
Isosafrole	ug/L	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	5.0 U [5.0 U]	NA	5.0 U
Nitrobenzene	ug/L	NA	NA	5.0 U [5.0 U]	NA	5.0 U
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	5.0 U [5.0 U]	NA	5.0 U
N-Nitrosodiphenylamine	ug/L	NA	NA	5.0 U [5.0 U]	NA	5.0 U
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	25 U [25 U]	NA	25 U
Phenacetin	ug/L	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	5.0 U [5.0 U]	NA	5.0 U
Phenol	ug/L	NA	NA	5.0 U [5.0 U]	NA	5.0 U
Pronamide	ug/L	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	5.0 U [5.0 U]	NA	5.0 U
Pyridine	ug/L	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	NA	NA	5.0 U [5.0 U]	NA	5.0 U
PCBs						
Aroclor-1016	ug/L	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA
PCBs-Dissolved						
Aroclor-1016 (Dissolved)	ug/L	NA	NA	NA	0.2 U [0.2 U]	0.2 U
Aroclor-1221 (Dissolved)	ug/L	NA	NA	NA	0.2 U [0.2 U]	0.2 U
Aroclor-1232 (Dissolved)	ug/L	NA	NA	NA	0.4 U [0.4 U]	0.4 U
Aroclor-1242 (Dissolved)	ug/L	NA	NA	NA	0.2 U [0.2 U]	0.2 U

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
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SAGINAW, MICHIGAN

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PCBs-Dissolved (Cont'd.)						
Aroclor-1248 (Dissolved)	ug/L	NA	NA	NA	0.2 U [0.2 U]	0.2 U
Aroclor-1254 (Dissolved)	ug/L	NA	NA	NA	0.2 U [0.2 U]	0.2 U
Aroclor-1260 (Dissolved)	ug/L	NA	NA	NA	0.2 U [0.2 U]	0.2 U
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	NA	0.4 U [0.4 U]	0.4 U
Organochlorine Pesticides						
4,4'-DDD	ug/L	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	NA	NA	0.2 U [0.2 U]	NA	0.2 U
Aroclor-1221	ug/L	NA	NA	0.2 U [0.2 U]	NA	0.2 U
Aroclor-1232	ug/L	NA	NA	0.4 U [0.4 U]	NA	0.4 U
Aroclor-1242	ug/L	NA	NA	0.2 U [0.2 U]	NA	0.2 U
Aroclor-1248	ug/L	NA	NA	0.2 U [0.2 U]	NA	0.2 U
Aroclor-1254	ug/L	NA	NA	0.2 U [0.2 U]	NA	0.2 U
Aroclor-1260	ug/L	NA	NA	0.2 U [0.2 U]	NA	0.2 U
Aroclor-1262	ug/L	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA
Organophosphate Pesticides						
4,4'-DDD	ug/L	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA

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Organophosphate Pesticides (Cont'd.)						
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA
Herbicides						
2,4,5-T	ug/L	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA
Dioxins/Furans						
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

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Dioxins/Furans (Cont'd.)						
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA

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Volatile Organics						
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 UJ
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U
1,2-Dichloroethene (total)	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA
2-Butanone	ug/L	50 U	50 U	NA	50 U	50 U
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA
2-Hexanone	ug/L	R	R	NA	R	50 UJ
3-Chloropropene	ug/L	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U	50 U	NA	50 U	50 UJ
Acetone	ug/L	3.8 J	50 U	NA	50 U	50 U
Acetonitrile	ug/L	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA
Benzene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U
Bromoform	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 UJ
Bromomethane	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U
Carbon Disulfide	ug/L	50 U	50 U	NA	50 U	50 U
Carbon Tetrachloride	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Drum Remediation/Wetland Area X-12AR 2 - 7 07/26/95	Drum Remediation/Wetland Area X-12B 41.7 - 44.7 07/26/95	Drum Remediation/Wetland Area X-12B 41.7 - 44.7 06/05/96	Drum Remediation/Wetland Area X-12CAUG 17.5 - 20 07/26/95	Drum Remediation/Wetland Area X-15AR 2 - 12 07/19/95
Volatile Organics (Cont'd.)						
Chloroethane	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U
Chloroform	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U
Chloromethane	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U
Cyclohexane	ug/L	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U
Naphthalene	ug/L	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA
Styrene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U
Toluene	ug/L	1.0 U	1.0 U	NA	1.0 U	2.8 U
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 UJ	1.0 UJ	NA	1.0 UJ	1.0 UJ
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U
Total 1,3-Dichloropropenes	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U
Total Xylenes	ug/L	3.0 U	3.0 U	NA	3.0 U	4.4 U

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TABLE A-1
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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
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SAGINAW, MICHIGAN

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Semivolatile Organics						
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	5.0 UJ	5.0 UJ	5.0 U	5.0 UJ	5.0 U
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	50 U	50 U	50 U	50 U	50 U
2,4,6-Trichlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dichlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dimethylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dinitrophenol	ug/L	20 U	20 U	20 U	20 U	20 U
2,4-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Chlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Methylnaphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	20 U	20 U	20 U	20 U	20 U
2-Nitrophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Picoline	ug/L	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	20 U	20 U	20 U	20 U	20 U
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	20 U	20 U	20 U	20 U	20 U
4,6-Dinitro-2-methylphenol	ug/L	20 U	20 U	20 U	20 U	20 U
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloro-3-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloroaniline	ug/L	20 U	20 U	20 U	20 U	20 U
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

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Semivolatile Organics (Cont'd.)						
4-Nitroaniline	ug/L	20 U	20 U	20 U	20 U	20 U
4-Nitrophenol	ug/L	20 U	20 U	20 U	20 U	20 U
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA
Acenaphthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acenaphthylene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetophenone	ug/L	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA
Anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Atrazine	ug/L	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(a)pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(b)fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(g,h,i)perylene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(k)fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Chloroethyl)ether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Ethylhexyl)phthalate	ug/L	5.0 U	2.1 J	3.3 J	5.0 U	5.0 U
Butylbenzylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Caprolactam	ug/L	NA	NA	NA	NA	NA
Carbazole	ug/L	10 U	10 U	10 U	10 U	10 U
Chrysene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Diallate	ug/L	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibenzofuran	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Diethylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dimethylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Di-n-Butylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Di-n-Octylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Diphenylamine	ug/L	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA
Fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Fluorene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobutadiene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorocyclopentadiene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachloroethane	ug/L	5.0 U	5.0 U	2.0 U	5.0 U	5.0 U
Hexachloropropene	ug/L	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

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Semivolatile Organics (Cont'd.)						
Isophorone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Isosafrole	ug/L	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA
Naphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Nitrobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosodiphenylamine	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	25 U	25 U	25 U	25 U	25 U
Phenacetin	ug/L	NA	NA	NA	NA	NA
Phenanthrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Phenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Pronamide	ug/L	NA	NA	NA	NA	NA
Pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Pyridine	ug/L	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
PCBs						
Aroclor-1016	ug/L	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA
PCBs-Dissolved						
Aroclor-1016 (Dissolved)	ug/L	0.2 U	0.2 U	NA	0.2 U	0.2 U
Aroclor-1221 (Dissolved)	ug/L	0.2 U	0.2 U	NA	0.2 U	0.2 U
Aroclor-1232 (Dissolved)	ug/L	0.4 U	0.4 U	NA	0.4 U	0.4 U
Aroclor-1242 (Dissolved)	ug/L	0.2 U	0.2 U	NA	0.2 U	0.2 U

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PCBs-Dissolved (Cont'd.)						
Aroclor-1248 (Dissolved)	ug/L	0.2 U	0.2 U	NA	0.2 U	0.2 U
Aroclor-1254 (Dissolved)	ug/L	0.2 U	0.2 U	NA	0.2 U	0.2 U
Aroclor-1260 (Dissolved)	ug/L	0.2 U	0.2 U	NA	0.2 U	0.2 U
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	0.4 U	0.4 U	NA	0.4 U	0.4 U
Organochlorine Pesticides						
4,4'-DDD	ug/L	0.02 U	NA	NA	NA	NA
4,4'-DDE	ug/L	0.02 U	NA	NA	NA	NA
4,4'-DDT	ug/L	0.02 U	NA	NA	NA	NA
Aldrin	ug/L	0.01 U	NA	NA	NA	NA
Alpha-BHC	ug/L	0.01 U	NA	NA	NA	NA
Alpha-Chlordane	ug/L	0.01 U	NA	NA	NA	NA
Aroclor-1016	ug/L	0.2 U	0.2 U	NA	0.2 U	0.2 U
Aroclor-1221	ug/L	0.2 U	0.2 U	NA	0.2 U	0.2 U
Aroclor-1232	ug/L	0.4 U	0.4 U	NA	0.4 U	0.4 U
Aroclor-1242	ug/L	0.2 U	0.2 U	NA	0.2 U	0.2 U
Aroclor-1248	ug/L	0.2 U	0.2 U	NA	0.2 U	0.2 U
Aroclor-1254	ug/L	0.2 U	0.2 U	NA	0.2 U	0.2 U
Aroclor-1260	ug/L	0.2 U	0.2 U	NA	0.2 U	0.2 U
Aroclor-1262	ug/L	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA
Beta-BHC	ug/L	0.01 U	NA	NA	NA	NA
Delta-BHC	ug/L	0.01 U	NA	NA	NA	NA
Dieldrin	ug/L	0.02 U	NA	NA	NA	NA
Endosulfan I	ug/L	0.01 U	NA	NA	NA	NA
Endosulfan II	ug/L	0.02 U	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	0.02 U	NA	NA	NA	NA
Endrin	ug/L	0.02 U	NA	NA	NA	NA
Endrin Aldehyde	ug/L	0.02 U	NA	NA	NA	NA
Endrin Ketone	ug/L	0.02 U	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	0.01 U	NA	NA	NA	NA
Gamma-Chlordane	ug/L	0.01 U	NA	NA	NA	NA
Heptachlor	ug/L	0.01 U	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	0.01 U	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA
Methoxychlor	ug/L	0.5 UJ	NA	NA	NA	NA
Toxaphene	ug/L	1 U	NA	NA	NA	NA
Organophosphate Pesticides						
4,4'-DDD	ug/L	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Drum Remediation/Wetland Area X-12AR 2 - 7 07/26/95	Drum Remediation/Wetland Area X-12B 41.7 - 44.7 07/26/95	Drum Remediation/Wetland Area X-12B 41.7 - 44.7 06/05/96	Drum Remediation/Wetland Area X-12CAUG 17.5 - 20 07/26/95	Drum Remediation/Wetland Area X-15AR 2 - 12 07/19/95
Organophosphate Pesticides (Cont'd.)						
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA
Herbicides						
2,4,5-T	ug/L	1 UJ	NA	NA	NA	NA
2,4,5-TP	ug/L	1 UJ	NA	NA	NA	NA
2,4-D	ug/L	4 UJ	NA	NA	NA	NA
Dinoseb	ug/L	0.6 UJ	NA	NA	NA	NA
Dioxins/Furans						
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

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Dioxins/Furans (Cont'd.)						
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	0.0000013 U	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	0.0000018 U	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	0.0000044 U	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	0.0000044 U	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	0.00001 U	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	0.0000011 U	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	0.0000022 U	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

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Volatile Organics						
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	4.2 U	NA	NA	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	4.2 UJ	NA	NA	1.0 UJ	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	4.2 U	NA	NA	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	4.2 U	NA	NA	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	4.2 U	NA	NA	1.0 U	1.0 U
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	4.2 U	5.0 U	NA	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	4.2 U	NA	NA	1.0 U	1.0 U
1,2-Dichloroethene (total)	ug/L	4.2 U	NA	NA	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	4.2 U	NA	NA	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	4.2 U	5.0 U	NA	1.0 U	1.0 U
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	4.2 U	5.0 U	NA	1.0 U	1.0 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA
2-Butanone	ug/L	210 U	NA	NA	50 U	50 U
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA
2-Hexanone	ug/L	210 UJ	NA	NA	R	R
3-Chloropropene	ug/L	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	210 UJ	NA	NA	50 U	50 U
Acetone	ug/L	71 J	NA	NA	5.8 J	50 U
Acetonitrile	ug/L	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA
Benzene	ug/L	4.2 U	NA	NA	1.0 U	1.0 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	4.2 U	NA	NA	1.0 U	1.0 U
Bromoform	ug/L	4.2 UJ	NA	NA	1.0 U	1.0 U
Bromomethane	ug/L	4.2 U	NA	NA	1.0 U	1.0 U
Carbon Disulfide	ug/L	210 U	NA	NA	50 U	50 U
Carbon Tetrachloride	ug/L	4.2 U	NA	NA	1.0 U	1.0 U
Chlorobenzene	ug/L	4.2 U	NA	NA	1.0 U	1.0 U

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Volatile Organics (Cont'd.)						
Chloroethane	ug/L	4.2 U	NA	NA	1.0 U	1.0 U
Chloroform	ug/L	4.2 U	NA	NA	1.0 U	1.0 U
Chloromethane	ug/L	4.2 U	NA	NA	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	4.2 U	NA	NA	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	4.2 U	NA	NA	1.0 U	1.0 U
Cyclohexane	ug/L	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	4.2 U	NA	NA	1.0 U	1.0 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	4.2 U	NA	NA	1.0 U	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	4.2 U	NA	NA	1.0 U	1.0 U
Naphthalene	ug/L	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA
Styrene	ug/L	4.2 U	NA	NA	1.0 U	1.0 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	4.2 U	NA	NA	1.0 U	1.0 U
Toluene	ug/L	4.3 U	NA	NA	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	4.2 U	NA	NA	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	4.2 UJ	NA	NA	1.0 UJ	1.0 UJ
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA
Trichloroethene	ug/L	4.2 U	NA	NA	1.0 U	1.0 U
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	4.2 U	NA	NA	1.0 U	1.0 U
Total 1,3-Dichloropropenes	ug/L	4.2 U	NA	NA	1.0 U	1.0 U
Total Xylenes	ug/L	5.6 U	NA	NA	3.0 U	3.0 U

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Semivolatile Organics						
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	1.0 U	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	1.0 U	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	1.0 U	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	56 U	50 U	5.0 U	50 U	50 U
2,4,6-Trichlorophenol	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dichlorophenol	ug/L	6.0 U	5.0 U	10 U	5.0 U	5.0 U
2,4-Dimethylphenol	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dinitrophenol	ug/L	22 U	20 U	20 U	20 U	20 U
2,4-Dinitrotoluene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Chlorophenol	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Methylnaphthalene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Methylphenol	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	22 U	20 U	20 U	20 U	20 U
2-Nitrophenol	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Picoline	ug/L	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	22 U	20 U	20 U	20 U	20 U
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	22 U	20 U	20 U	20 U	20 U
4,6-Dinitro-2-methylphenol	ug/L	22 U	20 U	20 U	20 U	20 U
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloro-3-Methylphenol	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloroaniline	ug/L	22 U	20 U	10 U	20 U	20 U
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methylphenol	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U

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Semivolatile Organics (Cont'd.)						
4-Nitroaniline	ug/L	22 U	20 U	20 U	20 U	20 U
4-Nitrophenol	ug/L	22 U	20 U	20 U	20 U	20 U
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA
Acenaphthene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acenaphthylene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetophenone	ug/L	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA
Anthracene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Atrazine	ug/L	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(a)pyrene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(b)fluoranthene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(g,h,i)perylene	ug/L	6.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U
Benzo(k)fluoranthene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Chloroethyl)ether	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Ethylhexyl)phthalate	ug/L	500 BD	6.7	14	5.0 U	5.0 U
Butylbenzylphthalate	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Caprolactam	ug/L	NA	NA	NA	NA	NA
Carbazole	ug/L	6.0 U	10 U	10 U	10 U	10 U
Chrysene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Diallate	ug/L	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	6.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U
Dibenzofuran	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Diethylphthalate	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dimethylphthalate	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Di-n-Butylphthalate	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Di-n-Octylphthalate	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Diphenylamine	ug/L	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA
Fluoranthene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Fluorene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobenzene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobutadiene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorocyclopentadiene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachloroethane	ug/L	6.0 U	2.0 U	5.0 U	5.0 U	5.0 U
Hexachloropropene	ug/L	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	6.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Drum Remediation/Wetland Area X-15BR 35 - 40 07/19/95	Drum Remediation/Wetland Area X-15BR 35 - 40 06/05/96	Drum Remediation/Wetland Area X-15BR 35 - 40 05/19/00	Drum Remediation/Wetland Area X-20 4.7 - 7.7 07/25/95	Eastern Property Extention MW-2A 4 - 14 07/27/95
Semivolatile Organics (Cont'd.)						
Isophorone	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Isosafrole	ug/L	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA
Naphthalene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Nitrobenzene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosodiphenylamine	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	28 U	25 U	1.0 U	25 U	25 U
Phenacetin	ug/L	NA	NA	NA	NA	NA
Phenanthrene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Phenol	ug/L	0.59	5.0 U	5.0 U	5.0 U	5.0 U
Pronamide	ug/L	NA	NA	NA	NA	NA
Pyrene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Pyridine	ug/L	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U
PCBs						
Aroclor-1016	ug/L	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA
PCBs-Dissolved						
Aroclor-1016 (Dissolved)	ug/L	0.2 U	NA	NA	0.2 U	0.2 U
Aroclor-1221 (Dissolved)	ug/L	0.2 U	NA	NA	0.2 U	0.2 U
Aroclor-1232 (Dissolved)	ug/L	0.4 U	NA	NA	0.4 U	0.4 U
Aroclor-1242 (Dissolved)	ug/L	0.2 U	NA	NA	0.2 U	0.2 U

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TABLE A-1
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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Drum Remediation/Wetland Area X-15BR 35 - 40 07/19/95	Drum Remediation/Wetland Area X-15BR 35 - 40 06/05/96	Drum Remediation/Wetland Area X-15BR 35 - 40 05/19/00	Drum Remediation/Wetland Area X-20 4.7 - 7.7 07/25/95	Eastern Property Extention MW-2A 4 - 14 07/27/95
PCBs-Dissolved (Cont'd.)						
Aroclor-1248 (Dissolved)	ug/L	0.2 U	NA	NA	0.2 U	0.2 U
Aroclor-1254 (Dissolved)	ug/L	0.2 U	NA	NA	0.2 U	0.2 U
Aroclor-1260 (Dissolved)	ug/L	0.2 U	NA	NA	0.2 U	0.2 U
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	0.4 U	NA	NA	0.4 U	0.4 U
Organochlorine Pesticides						
4,4'-DDD	ug/L	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	0.2 U	NA	NA	0.2 U	0.2 U
Aroclor-1221	ug/L	0.2 U	NA	NA	0.2 U	0.2 U
Aroclor-1232	ug/L	0.4 U	NA	NA	0.4 U	0.4 U
Aroclor-1242	ug/L	0.2 U	NA	NA	0.2 U	0.2 U
Aroclor-1248	ug/L	0.2 U	NA	NA	0.2 U	0.2 U
Aroclor-1254	ug/L	0.2 U	NA	NA	0.2 U	0.2 U
Aroclor-1260	ug/L	0.2 U	NA	NA	0.2 U	0.2 U
Aroclor-1262	ug/L	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA
Organophosphate Pesticides						
4,4'-DDD	ug/L	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA

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Organophosphate Pesticides (Cont'd.)						
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA
Herbicides						
2,4,5-T	ug/L	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA
Dioxins/Furans						
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

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Dioxins/Furans (Cont'd.)						
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA

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Volatile Organics							
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	NA
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	NA
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	NA
1,1-Dichloroethane	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	NA
1,1-Dichloroethene	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	NA
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	1.0 U	5.0 U	NA	1.0 U	1.0 U	NA
1,2-Dichloroethane	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	NA
1,2-Dichloroethene (total)	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	NA
1,2-Dichloropropane	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1.0 U	5.0 U	NA	1.0 U	1.0 U	NA
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	1.0 U	5.0 U	NA	1.0 U	1.0 U	NA
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	50 U	NA	NA	50 U	50 U	NA
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	R	NA	NA	R	50 U	NA
3-Chloropropene	ug/L	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U	NA	NA	50 U	50 U	NA
Acetone	ug/L	9.1 J	NA	NA	50 U	5.1 J	NA
Acetonitrile	ug/L	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA
Benzene	ug/L	1.0 U	NA	NA	1.0 U	2.2	NA
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	NA
Bromoform	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	NA
Bromomethane	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	NA
Carbon Disulfide	ug/L	50 U	NA	NA	50 U	50 U	NA
Carbon Tetrachloride	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	NA
Chlorobenzene	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	NA

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Volatile Organics (Cont'd.)							
Chloroethane	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	NA
Chloroform	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	NA
Chloromethane	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	NA
cis-1,2-Dichloroethene	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	NA
cis-1,3-Dichloropropene	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	NA
Cyclohexane	ug/L	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	NA
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1.0 U	NA	NA	1.0 U	14	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	NA
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	NA
Toluene	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	NA
trans-1,2-Dichloroethene	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	NA
trans-1,3-Dichloropropene	ug/L	1.0 UJ	NA	NA	1.0 UJ	1.0 UJ	NA
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	NA
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	NA
Total 1,3-Dichloropropenes	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	NA
Total Xylenes	ug/L	3.0 U	NA	NA	3.0 U	2.2 U	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

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Semivolatile Organics							
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	1.0 U	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	1.0 U	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	1.0 U	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	50 U	50 U	5.0 U	50 U	50 U	NA
2,4,6-Trichlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
2,4-Dichlorophenol	ug/L	5.0 U	5.0 U	10 U	5.0 U	5.0 U	NA
2,4-Dimethylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
2,4-Dinitrophenol	ug/L	20 U	20 U	20 U	20 U	20 U	NA
2,4-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
2-Chlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
2-Methylnaphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	20	NA
2-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	20 U	20 U	20 U	20 U	20 U	NA
2-Nitrophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
2-Picoline	ug/L	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	20 U	20 U	20 U	20 U	20 U	NA
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	20 U	20 U	20 U	20 U	20 U	NA
4,6-Dinitro-2-methylphenol	ug/L	20 U	20 U	20 U	20 U	20 U	NA
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
4-Chloro-3-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
4-Chloroaniline	ug/L	20 U	20 U	10 U	20 U	20 U	NA
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
4-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	0.80 J	NA

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Semivolatile Organics (Cont'd.)							
4-Nitroaniline	ug/L	20 U	20 U	20 U	20 U	20 U	NA
4-Nitrophenol	ug/L	20 U	20 U	20 U	20 U	20 U	NA
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
Acenaphthylene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
Benzo(a)pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
Benzo(b)fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
Benzo(g,h,i)perylene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
Benzo(k)fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
bis(2-Chloroethyl)ether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
bis(2-Ethylhexyl)phthalate	ug/L	13	5.0 UJ	5.0 U	5.0 U	5.0 U	NA
Butylbenzylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	10 U	10 U	10 U	10 U	10 U	NA
Chrysene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
Diallate	ug/L	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
Dibenzofuran	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
Diethylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
Dimethylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
Di-n-Butylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
Di-n-Octylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
Diphenylamine	ug/L	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
Fluorene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
Hexachlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
Hexachlorobutadiene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
Hexachlorocyclopentadiene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
Hexachloroethane	ug/L	5.0 U	2.0 U	5.0 U	5.0 U	5.0 U	NA
Hexachloropropene	ug/L	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA

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Semivolatile Organics (Cont'd.)							
Isophorone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
Isosafrole	ug/L	NA	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	61	NA
Nitrobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
N-Nitrosodiphenylamine	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	25 U	25 U	1.0 U	25 U	25 U	NA
Phenacetin	ug/L	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
Phenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	2.8 J	NA
Pronamide	ug/L	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
Pyridine	ug/L	NA	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
PCBs							
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA
PCBs-Dissolved							
Aroclor-1016 (Dissolved)	ug/L	0.2 U	NA	NA	0.2 U	0.2 U	0.2 U
Aroclor-1221 (Dissolved)	ug/L	0.2 U	NA	NA	0.2 U	0.2 U	0.2 U
Aroclor-1232 (Dissolved)	ug/L	0.4 U	NA	NA	0.4 U	0.4 U	0.4 U
Aroclor-1242 (Dissolved)	ug/L	0.2 U	NA	NA	0.2 U	0.2 U	0.2 U

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PCBs-Dissolved (Cont'd.)							
Aroclor-1248 (Dissolved)	ug/L	0.2 U	NA	NA	0.2 U	1.5	0.2 U
Aroclor-1254 (Dissolved)	ug/L	0.2 U	NA	NA	0.2 U	1.1	0.2 U
Aroclor-1260 (Dissolved)	ug/L	0.2 U	NA	NA	0.2 U	0.4 U	0.2 U
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	0.4 U	NA	NA	0.4 U	2.6	0.4 U
Organochlorine Pesticides							
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	0.2 U	NA	NA	0.2 U	0.2 UJ	0.5 U
Aroclor-1221	ug/L	0.2 U	NA	NA	0.2 U	0.2 UJ	0.5 U
Aroclor-1232	ug/L	0.4 U	NA	NA	0.4 U	0.4 UJ	0.5 U
Aroclor-1242	ug/L	0.2 U	NA	NA	0.2 U	0.2 UJ	0.5 U
Aroclor-1248	ug/L	0.2 U	NA	NA	0.2 U	2.1 J	0.5 U
Aroclor-1254	ug/L	0.2 U	NA	NA	0.2 U	2.3 J	2.2
Aroclor-1260	ug/L	0.2 U	NA	NA	0.2 U	0.4 UJ	1 U
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA
Organophosphate Pesticides							
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA

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Organophosphate Pesticides (Cont'd.)							
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA
Herbicides							
2,4,5-T	ug/L	NA	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA	NA
Dioxins/Furans							
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Eastern Property Extention MW-2B 36 - 46 07/27/95	Eastern Property Extention MW-2B 36 - 46 06/11/96	Eastern Property Extention MW-2B 36 - 46 05/20/00	Eastern Property Extention MW-2CAUG 24 - 29 07/27/95	Eastern Type III Landfill B-4AR 22 - 27 07/25/95	Eastern Type III Landfill B-4AR 22 - 27 06/12/96
Dioxins/Furans (Cont'd.)							
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Eastern Type III Landfill B-4AR 22 - 27 06/29/99	Eastern Type III Landfill B-4AR 22 - 27 05/23/00	Eastern Type III Landfill B-4BR 31.2 - 36.2 07/25/95	Eastern Type III Landfill B-4BR 31.2 - 36.2 06/05/96	Eastern Type III Landfill B-4BR 31.2 - 36.2 09/02/99	Eastern Type III Landfill B-4BR 31.2 - 36.2 05/22/00	Eastern Type III Landfill B-4CAUG 48.2 - 53.2 07/25/95
Volatile Organics								
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	NA	NA	1.7 U	NA	NA	NA	6.2 U
1,1,2,2-Tetrachloroethane	ug/L	NA	NA	1.7 UJ	NA	NA	NA	6.2 UJ
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	NA	NA	1.7 U	NA	NA	NA	6.2 U
1,1-Dichloroethane	ug/L	NA	NA	1.7 U	NA	NA	NA	6.2 U
1,1-Dichloroethene	ug/L	NA	NA	1.7 U	NA	NA	NA	6.2 U
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	1.7 U	NA	NA	NA	6.2 U
1,2-Dichloroethane	ug/L	NA	NA	1.7 U	NA	NA	NA	6.2 U
1,2-Dichloroethene (total)	ug/L	NA	NA	1.7 U	NA	NA	NA	6.2 U
1,2-Dichloropropane	ug/L	NA	NA	1.7 U	NA	NA	NA	6.2 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	1.7 U	NA	NA	NA	6.2 U
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	1.7 U	NA	NA	NA	6.2 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	NA	NA	8.2 J	NA	NA	NA	310 U
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	NA	NA	83 UJ	NA	NA	NA	310 UJ
3-Chloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	NA	NA	83 U	NA	NA	NA	310 U
Acetone	ug/L	NA	NA	63 J	NA	NA	NA	96 J
Acetonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	NA	NA	1.7 U	NA	NA	NA	6.2 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	NA	NA	1.7 U	NA	NA	NA	6.2 U
Bromoform	ug/L	NA	NA	1.7 U	NA	NA	NA	6.2 U
Bromomethane	ug/L	NA	NA	1.7 U	NA	NA	NA	6.2 U
Carbon Disulfide	ug/L	NA	NA	83 U	NA	NA	NA	310 U
Carbon Tetrachloride	ug/L	NA	NA	1.7 U	NA	NA	NA	6.2 U
Chlorobenzene	ug/L	NA	NA	1.7 U	NA	NA	NA	6.2 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Eastern Type III Landfill B-4AR 22 - 27 06/29/99	Eastern Type III Landfill B-4AR 22 - 27 05/23/00	Eastern Type III Landfill B-4BR 31.2 - 36.2 07/25/95	Eastern Type III Landfill B-4BR 31.2 - 36.2 06/05/96	Eastern Type III Landfill B-4BR 31.2 - 36.2 09/02/99	Eastern Type III Landfill B-4BR 31.2 - 36.2 05/22/00	Eastern Type III Landfill B-4CAUG 48.2 - 53.2 07/25/95
Volatile Organics (Cont'd.)								
Chloroethane	ug/L	NA	NA	1.7 U	NA	NA	NA	6.2 U
Chloroform	ug/L	NA	NA	1.7 U	NA	NA	NA	6.2 U
Chloromethane	ug/L	NA	NA	1.7 U	NA	NA	NA	6.2 U
cis-1,2-Dichloroethene	ug/L	NA	NA	1.7 U	NA	NA	NA	6.2 U
cis-1,3-Dichloropropene	ug/L	NA	NA	1.7 U	NA	NA	NA	6.2 U
Cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	NA	NA	1.7 U	NA	NA	NA	6.2 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	NA	NA	1.7 U	NA	NA	NA	6.2 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	NA	NA	1.7 U	NA	NA	NA	6.2 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	NA	NA	1.7 U	NA	NA	NA	6.2 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	NA	NA	1.7 U	NA	NA	NA	6.2 U
Toluene	ug/L	NA	NA	1.7 U	NA	NA	NA	8.7 U
trans-1,2-Dichloroethene	ug/L	NA	NA	1.7 U	NA	NA	NA	6.2 U
trans-1,3-Dichloropropene	ug/L	NA	NA	1.7 UJ	NA	NA	NA	6.2 UJ
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	NA	NA	1.7 U	NA	NA	NA	6.2 U
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	NA	NA	1.7 U	NA	NA	NA	6.2 U
Total 1,3-Dichloropropenes	ug/L	NA	NA	1.7 U	NA	NA	NA	6.2 U
Total Xylenes	ug/L	NA	NA	5.0 U	NA	NA	NA	28 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Eastern Type III Landfill B-4AR 22 - 27 06/29/99	Eastern Type III Landfill B-4AR 22 - 27 05/23/00	Eastern Type III Landfill B-4BR 31.2 - 36.2 07/25/95	Eastern Type III Landfill B-4BR 31.2 - 36.2 06/05/96	Eastern Type III Landfill B-4BR 31.2 - 36.2 09/02/99	Eastern Type III Landfill B-4BR 31.2 - 36.2 05/22/00	Eastern Type III Landfill B-4CAUG 48.2 - 53.2 07/25/95
Semivolatile Organics								
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	10 U	NA	NA	NA	100 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	NA	NA	10 U	NA	NA	NA	100 U
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	100 U	NA	NA	NA	1,000 U
2,4,6-Trichlorophenol	ug/L	NA	NA	10 U	NA	NA	NA	100 U
2,4-Dichlorophenol	ug/L	NA	NA	10 U	NA	NA	NA	100 U
2,4-Dimethylphenol	ug/L	NA	NA	10 U	NA	NA	NA	70 JD
2,4-Dinitrophenol	ug/L	NA	NA	40 U	NA	NA	NA	400 U
2,4-Dinitrotoluene	ug/L	NA	NA	10 U	NA	NA	NA	100 U
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	NA	10 U	NA	NA	NA	100 U
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	10 U	NA	NA	NA	100 U
2-Chlorophenol	ug/L	NA	NA	2.4 J	NA	NA	NA	100 U
2-Methylnaphthalene	ug/L	NA	NA	10 U	NA	NA	NA	1.8 J
2-Methylphenol	ug/L	NA	NA	10 U	NA	NA	NA	7.5
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	40 U	NA	NA	NA	400 U
2-Nitrophenol	ug/L	NA	NA	10 U	NA	NA	NA	100 U
2-Picoline	ug/L	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	40 U	NA	NA	NA	400 U
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	40 U	NA	NA	NA	400 U
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	40 U	NA	NA	NA	400 U
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	10 U	NA	NA	NA	100 U
4-Chloro-3-Methylphenol	ug/L	NA	NA	10 U	NA	NA	NA	100 U
4-Chloroaniline	ug/L	NA	NA	40 U	NA	NA	NA	400 U
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	10 U	NA	NA	NA	100 U
4-Methylphenol	ug/L	NA	NA	4.4 J	NA	NA	NA	780 D

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Eastern Type III Landfill B-4AR 22 - 27 06/29/99	Eastern Type III Landfill B-4AR 22 - 27 05/23/00	Eastern Type III Landfill B-4BR 31.2 - 36.2 07/25/95	Eastern Type III Landfill B-4BR 31.2 - 36.2 06/05/96	Eastern Type III Landfill B-4BR 31.2 - 36.2 09/02/99	Eastern Type III Landfill B-4BR 31.2 - 36.2 05/22/00	Eastern Type III Landfill B-4CAUG 48.2 - 53.2 07/25/95
Semivolatile Organics (Cont'd.)								
4-Nitroaniline	ug/L	NA	NA	40 U	NA	NA	NA	400 U
4-Nitrophenol	ug/L	NA	NA	40 U	NA	NA	NA	400 U
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	10 U	NA	NA	NA	100 U
Acenaphthylene	ug/L	NA	NA	10 U	NA	NA	NA	100 U
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	10 U	NA	NA	NA	100 U
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	NA	10 U	NA	NA	NA	100 U
Benzo(a)pyrene	ug/L	NA	NA	10 U	NA	NA	NA	100 U
Benzo(b)fluoranthene	ug/L	NA	NA	10 U	NA	NA	NA	100 U
Benzo(g,h,i)perylene	ug/L	NA	NA	10 U	NA	NA	NA	100 U
Benzo(k)fluoranthene	ug/L	NA	NA	10 U	NA	NA	NA	100 U
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	10 U	NA	NA	NA	100 U
bis(2-Chloroethyl)ether	ug/L	NA	NA	10 U	NA	NA	NA	100 U
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	10 U	NA	NA	NA	100 U
Butylbenzylphthalate	ug/L	NA	NA	10 U	NA	NA	NA	100 U
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	20 U	NA	NA	NA	200 U
Chrysene	ug/L	NA	NA	10 U	NA	NA	NA	100 U
Diallate	ug/L	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	10 U	NA	NA	NA	100 U
Dibenzofuran	ug/L	NA	NA	10 U	NA	NA	NA	100 U
Diethylphthalate	ug/L	NA	NA	10 U	NA	NA	NA	100 U
Dimethylphthalate	ug/L	NA	NA	10 U	NA	NA	NA	100 U
Di-n-Butylphthalate	ug/L	NA	NA	10 U	NA	NA	NA	100 U
Di-n-Octylphthalate	ug/L	NA	NA	10 U	NA	NA	NA	100 U
Diphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	10 U	NA	NA	NA	100 U
Fluorene	ug/L	NA	NA	10 U	NA	NA	NA	100 U
Hexachlorobenzene	ug/L	NA	NA	10 U	NA	NA	NA	100 U
Hexachlorobutadiene	ug/L	NA	NA	10 U	NA	NA	NA	100 U
Hexachlorocyclopentadiene	ug/L	NA	NA	10 U	NA	NA	NA	100 U
Hexachloroethane	ug/L	NA	NA	10 U	NA	NA	NA	100 U
Hexachloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	10 U	NA	NA	NA	100 U

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SAGINAW, MICHIGAN

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Semivolatile Organics (Cont'd.)								
Isophorone	ug/L	NA	NA	10 U	NA	NA	NA	100 U
Isosafrole	ug/L	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	10 U	NA	NA	NA	3.4 J
Nitrobenzene	ug/L	NA	NA	10 U	NA	NA	NA	100 U
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	10 U	NA	NA	NA	100 U
N-Nitrosodiphenylamine	ug/L	NA	NA	10 U	NA	NA	NA	100 U
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	50 U	NA	NA	NA	500 U
Phenacetin	ug/L	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	10 U	NA	NA	NA	100 U
Phenol	ug/L	NA	NA	85	NA	NA	NA	1,500 D
Pronamide	ug/L	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	10 U	NA	NA	NA	100 U
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	NA	NA	10 U	NA	NA	NA	7.5
PCBs								
Aroclor-1016	ug/L	0.10 U	0.20 U	NA	NA	0.10 U	0.20 U	NA
Aroclor-1221	ug/L	0.10 U	0.20 U	NA	NA	0.10 U	0.20 U	NA
Aroclor-1232	ug/L	0.10 U	0.40 U	NA	NA	0.10 U	0.40 U	NA
Aroclor-1242	ug/L	0.10 U	0.20 U	NA	NA	0.10 U	0.20 U	NA
Aroclor-1248	ug/L	0.10 U	0.20 U	NA	NA	0.64	0.53	NA
Aroclor-1254	ug/L	0.10 U	0.20 U	NA	NA	0.26	0.20 U	NA
Aroclor-1260	ug/L	0.10 U	0.20 U	NA	NA	0.10 U	0.20 U	NA
Aroclor-1262	ug/L	0.10 U	NA	NA	NA	0.10 U	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	0.10 U	NA	NA	NA	0.10 U	NA	NA
Total PCBs	ug/L	0.10 U	0.40 U	NA	NA	0.90	0.53	NA
PCBs-Dissolved								
Aroclor-1016 (Dissolved)	ug/L	0.1 U	0.2 U	0.2 U	0.2 U	0.11 U	0.2 U	0.2 U
Aroclor-1221 (Dissolved)	ug/L	0.1 U	0.2 U	0.2 U	0.2 U	0.11 U	0.2 U	0.2 U
Aroclor-1232 (Dissolved)	ug/L	0.1 U	0.4 U	0.4 U	0.4 U	0.11 U	0.4 U	0.4 U
Aroclor-1242 (Dissolved)	ug/L	0.1 U	0.2 U	0.2 U	0.2 U	0.11 U	0.2 U	0.2 U

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TABLE A-1
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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Eastern Type III Landfill B-4AR 22 - 27 06/29/99	Eastern Type III Landfill B-4AR 22 - 27 05/23/00	Eastern Type III Landfill B-4BR 31.2 - 36.2 07/25/95	Eastern Type III Landfill B-4BR 31.2 - 36.2 06/05/96	Eastern Type III Landfill B-4BR 31.2 - 36.2 09/02/99	Eastern Type III Landfill B-4BR 31.2 - 36.2 05/22/00	Eastern Type III Landfill B-4CAUG 48.2 - 53.2 07/25/95
PCBs-Dissolved (Cont'd.)								
Aroclor-1248 (Dissolved)	ug/L	0.1 U	0.2 U	0.2 U	0.3	0.11 U	0.23	0.2 U
Aroclor-1254 (Dissolved)	ug/L	0.1 U	0.2 U	0.2 U	0.2 U	0.11 U	0.2 U	0.2 U
Aroclor-1260 (Dissolved)	ug/L	0.1 U	0.2 U	0.2 U	0.2 U	0.11 U	0.2 U	0.2 U
Aroclor-1262 (Dissolved)	ug/L	0.1 U	NA	NA	NA	0.11 U	NA	NA
Aroclor-1268 (Dissolved)	ug/L	0.1 U	NA	NA	NA	0.11 U	NA	NA
Total PCBs (Dissolved)	ug/L	0.1 U	0.4 U	0.4 U	0.3	0.11 U	0.23	0.4 U
Organochlorine Pesticides								
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	NA	NA	0.2 UJ	0.2 U	NA	NA	0.2 U
Aroclor-1221	ug/L	NA	NA	0.2 UJ	0.2 U	NA	NA	0.2 U
Aroclor-1232	ug/L	NA	NA	0.4 UJ	0.4 U	NA	NA	0.4 U
Aroclor-1242	ug/L	NA	NA	0.2 UJ	0.2 U	NA	NA	0.2 U
Aroclor-1248	ug/L	NA	NA	1.8 J	1	NA	NA	0.85
Aroclor-1254	ug/L	NA	NA	0.66 J	0.4 U	NA	NA	0.4 U
Aroclor-1260	ug/L	NA	NA	0.4 UJ	0.4 U	NA	NA	0.4 U
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA
Organophosphate Pesticides								
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Eastern Type III Landfill B-4AR 22 - 27 06/29/99	Eastern Type III Landfill B-4AR 22 - 27 05/23/00	Eastern Type III Landfill B-4BR 31.2 - 36.2 07/25/95	Eastern Type III Landfill B-4BR 31.2 - 36.2 06/05/96	Eastern Type III Landfill B-4BR 31.2 - 36.2 09/02/99	Eastern Type III Landfill B-4BR 31.2 - 36.2 05/22/00	Eastern Type III Landfill B-4CAUG 48.2 - 53.2 07/25/95
Organophosphate Pesticides (Cont'd.)								
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA
Herbicides								
2,4,5-T	ug/L	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans								
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA

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Dioxins/Furans (Cont'd.)								
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

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Volatile Organics								
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	NA	NA	NA	1.0 U [1.0 U]	NA	NA	NA
1,1,2,2-Tetrachloroethane	ug/L	NA	NA	NA	1.0 U [1.0 U]	NA	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	NA	NA	NA	1.0 U [1.0 U]	NA	NA	NA
1,1-Dichloroethane	ug/L	NA	NA	NA	1.0 U [1.0 U]	NA	NA	NA
1,1-Dichloroethene	ug/L	NA	NA	NA	1.0 U [1.0 U]	NA	NA	NA
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	500 U	NA	NA	1.0 U [1.0 U]	NA	NA	NA
1,2-Dichloroethane	ug/L	NA	NA	NA	1.0 U [1.0 U]	NA	NA	NA
1,2-Dichloroethene (total)	ug/L	NA	NA	NA	1.0 U [1.0 U]	NA	NA	NA
1,2-Dichloropropane	ug/L	NA	NA	NA	1.0 U [1.0 U]	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	500 U	NA	NA	1.0 U [1.0 U]	NA	NA	NA
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	500 U	NA	NA	1.0 U [1.0 U]	NA	NA	NA
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	NA	NA	NA	50 U [50 U]	NA	NA	NA
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	NA	NA	NA	50 U [50 U]	NA	NA	NA
3-Chloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	NA	NA	NA	50 U [50 U]	NA	NA	NA
Acetone	ug/L	NA	NA	NA	50 U [50 U]	NA	NA	NA
Acetonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	NA	NA	NA	1.0 U [1.0 U]	NA	NA	NA
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	NA	NA	NA	1.0 U [1.0 U]	NA	NA	NA
Bromoform	ug/L	NA	NA	NA	1.0 U [1.0 U]	NA	NA	NA
Bromomethane	ug/L	NA	NA	NA	1.0 U [1.0 U]	NA	NA	NA
Carbon Disulfide	ug/L	NA	NA	NA	50 U [50 U]	NA	NA	NA
Carbon Tetrachloride	ug/L	NA	NA	NA	1.0 U [1.0 U]	NA	NA	NA
Chlorobenzene	ug/L	NA	NA	NA	1.0 U [1.0 U]	NA	NA	NA

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Volatile Organics (Cont'd.)								
Chloroethane	ug/L	NA	NA	NA	1.0 U [1.0 U]	NA	NA	NA
Chloroform	ug/L	NA	NA	NA	1.0 U [1.0 U]	NA	NA	NA
Chloromethane	ug/L	NA	NA	NA	1.0 U [1.0 U]	NA	NA	NA
cis-1,2-Dichloroethene	ug/L	NA	NA	NA	1.0 U [1.0 U]	NA	NA	NA
cis-1,3-Dichloropropene	ug/L	NA	NA	NA	1.0 U [1.0 U]	NA	NA	NA
Cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	NA	NA	NA	1.0 U [1.0 U]	NA	NA	NA
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	NA	NA	NA	1.0 U [1.0 U]	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	NA	NA	NA	1.0 U [1.0 U]	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	NA	NA	NA	1.0 U [1.0 U]	NA	NA	NA
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	NA	NA	NA	1.0 U [1.0 U]	NA	NA	NA
Toluene	ug/L	NA	NA	NA	1.0 U [1.0 U]	NA	NA	NA
trans-1,2-Dichloroethene	ug/L	NA	NA	NA	1.0 U [1.0 U]	NA	NA	NA
trans-1,3-Dichloropropene	ug/L	NA	NA	NA	1.0 UJ [1.0 UJ]	NA	NA	NA
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	NA	NA	NA	1.0 U [1.0 U]	NA	NA	NA
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	NA	NA	NA	1.0 U [1.0 U]	NA	NA	NA
Total 1,3-Dichloropropenes	ug/L	NA	NA	NA	1.0 U [1.0 U]	NA	NA	NA
Total Xylenes	ug/L	NA	NA	NA	3.0 U [3.0 U]	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Eastern Type III Landfill B-4CAUG 48.2 - 53.2 06/04/96	Eastern Type III Landfill B-4CAUG 48.2 - 53.2 06/29/99	Eastern Type III Landfill B-4CAUG 48.2 - 53.2 05/23/00	Eastern Type III Landfill B-4DAUG 64.5 - 69.5 07/25/95	Eastern Type III Landfill B-4DAUG 64.5 - 69.5 06/04/96	Eastern Type III Landfill B-4DAUG 64.5 - 69.5 09/02/99	Eastern Type III Landfill B-4DAUG 64.5 - 69.5 05/22/00
Semivolatile Organics								
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	500 U	NA	25 U	5.0 U [5.0 U]	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	5.0 U	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	5.0 U	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	5.0 U	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	500 U	NA	25 U	5.0 U [5.0 U]	NA	NA	NA
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	5,000 U	NA	25 U	50 U [50 U]	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	500 U	NA	25 U	5.0 U [5.0 U]	NA	NA	NA
2,4-Dichlorophenol	ug/L	500 U	NA	50 U	5.0 U [5.0 U]	NA	NA	NA
2,4-Dimethylphenol	ug/L	560	NA	57	5.0 U [5.0 U]	NA	NA	NA
2,4-Dinitrophenol	ug/L	2,000 U	NA	100 U	20 U [20 U]	NA	NA	NA
2,4-Dinitrotoluene	ug/L	500 U	NA	25 U	5.0 U [5.0 U]	NA	NA	NA
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	500 U	NA	25 U	5.0 U [5.0 U]	NA	NA	NA
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	500 U	NA	25 U	5.0 U [5.0 U]	NA	NA	NA
2-Chlorophenol	ug/L	500 U	NA	25 U	5.0 U [5.0 U]	NA	NA	NA
2-Methylnaphthalene	ug/L	500 U	NA	25 U	5.0 U [5.0 U]	NA	NA	NA
2-Methylphenol	ug/L	500 U	NA	25 U	5.0 U [5.0 U]	NA	NA	NA
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	2,000 U	NA	100 U	20 U [20 U]	NA	NA	NA
2-Nitrophenol	ug/L	500 U	NA	25 U	5.0 U [5.0 U]	NA	NA	NA
2-Picoline	ug/L	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	2,000 U	NA	100 U	20 U [20 U]	NA	NA	NA
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	2,000 U	NA	100 U	20 U [20 U]	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	2,000 U	NA	100 U	20 U [20 U]	NA	NA	NA
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	500 U	NA	25 U	5.0 U [5.0 U]	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	500 U	NA	25 U	5.0 U [5.0 U]	NA	NA	NA
4-Chloroaniline	ug/L	2,000 U	NA	50 U	20 U [20 U]	NA	NA	NA
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	500 U	NA	25 U	5.0 U [5.0 U]	NA	NA	NA
4-Methylphenol	ug/L	5,000	NA	400 #	1.3 J [5.0 U]	NA	NA	NA

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Semivolatile Organics (Cont'd.)								
4-Nitroaniline	ug/L	2,000 U	NA	100 U	20 U [20 U]	NA	NA	NA
4-Nitrophenol	ug/L	2,000 U	NA	100 U	20 U [20 U]	NA	NA	NA
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	500 U	NA	25 U	5.0 U [5.0 U]	NA	NA	NA
Acenaphthylene	ug/L	500 U	NA	25 U	5.0 U [5.0 U]	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	500 U	NA	25 U	5.0 U [5.0 U]	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	500 U	NA	25 U	5.0 U [5.0 U]	NA	NA	NA
Benzo(a)pyrene	ug/L	500 U	NA	25 U	5.0 U [5.0 U]	NA	NA	NA
Benzo(b)fluoranthene	ug/L	500 U	NA	25 U	5.0 U [5.0 U]	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	500 U	NA	25 U	5.0 U [5.0 U]	NA	NA	NA
Benzo(k)fluoranthene	ug/L	500 U	NA	25 U	5.0 U [5.0 U]	NA	NA	NA
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	500 U	NA	25 U	5.0 U [5.0 U]	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	500 U	NA	25 U	5.0 U [5.0 U]	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	500 U	NA	25 U	5.0 U [5.0 U]	NA	NA	NA
Butylbenzylphthalate	ug/L	500 U	NA	25 U	5.0 U [5.0 U]	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	1,000 U	NA	50 U	10 U [10 U]	NA	NA	NA
Chrysene	ug/L	500 U	NA	25 U	5.0 U [5.0 U]	NA	NA	NA
Diallate	ug/L	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	500 U	NA	25 U	5.0 U [5.0 U]	NA	NA	NA
Dibenzofuran	ug/L	500 U	NA	25 U	5.0 U [5.0 U]	NA	NA	NA
Diethylphthalate	ug/L	500 U	NA	25 U	5.0 U [5.0 U]	NA	NA	NA
Dimethylphthalate	ug/L	500 U	NA	25 U	5.0 U [5.0 U]	NA	NA	NA
Di-n-Butylphthalate	ug/L	500 U	NA	25 U	5.0 U [5.0 U]	NA	NA	NA
Di-n-Octylphthalate	ug/L	500 U	NA	25 U	5.0 U [5.0 U]	NA	NA	NA
Diphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	500 U	NA	25 U	5.0 U [5.0 U]	NA	NA	NA
Fluorene	ug/L	500 U	NA	25 U	5.0 U [5.0 U]	NA	NA	NA
Hexachlorobenzene	ug/L	500 U	NA	25 U	5.0 U [5.0 U]	NA	NA	NA
Hexachlorobutadiene	ug/L	500 U	NA	25 U	5.0 U [5.0 U]	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	500 U	NA	25 U	5.0 U [5.0 U]	NA	NA	NA
Hexachloroethane	ug/L	200 U	NA	25 U	5.0 U [5.0 U]	NA	NA	NA
Hexachloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	500 U	NA	25 U	5.0 U [5.0 U]	NA	NA	NA

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Semivolatile Organics (Cont'd.)								
Isophorone	ug/L	500 U	NA	25 U	5.0 U [5.0 U]	NA	NA	NA
Isosafrole	ug/L	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	500 U	NA	25 U	5.0 U [5.0 U]	NA	NA	NA
Nitrobenzene	ug/L	500 U	NA	25 U	5.0 U [5.0 U]	NA	NA	NA
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	500 U	NA	25 U	5.0 U [5.0 U]	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	500 U	NA	25 U	5.0 U [5.0 U]	NA	NA	NA
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	2,500 U	NA	5.0 U	25 U [25 U]	NA	NA	NA
Phenacetin	ug/L	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	500 U	NA	25 U	5.0 U [5.0 U]	NA	NA	NA
Phenol	ug/L	3,400	NA	140	26 [18]	NA	NA	NA
Pronamide	ug/L	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	500 U	NA	25 U	5.0 U [5.0 U]	NA	NA	NA
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	500 U	NA	25 U	5.0 U [5.0 U]	NA	NA	NA
PCBs								
Aroclor-1016	ug/L	NA	0.10 U	0.20 U	NA	NA	0.10 U	0.20 U [0.20 U]
Aroclor-1221	ug/L	NA	0.10 U	0.20 U	NA	NA	0.10 U	0.20 U [0.20 U]
Aroclor-1232	ug/L	NA	0.10 U	0.40 U	NA	NA	0.10 U	0.40 U [0.40 U]
Aroclor-1242	ug/L	NA	0.10 U	0.20 U	NA	NA	0.10 U	0.20 U [0.20 U]
Aroclor-1248	ug/L	NA	0.95	0.20 U	NA	NA	1.0	0.69 [0.70]
Aroclor-1254	ug/L	NA	0.10 U	0.20 U	NA	NA	0.21	0.20 U [0.20 U]
Aroclor-1260	ug/L	NA	0.10 U	0.20 U	NA	NA	0.10 U	0.20 U [0.20 U]
Aroclor-1262	ug/L	NA	0.10 U	NA	NA	NA	0.10 U	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	0.10 U	NA	NA	NA	0.10 U	NA
Total PCBs	ug/L	NA	0.95	0.40 U	NA	NA	1.2	0.69 [0.70]
PCBs-Dissolved								
Aroclor-1016 (Dissolved)	ug/L	0.2 U	0.1 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.1 U	0.2 U [0.2 U]
Aroclor-1221 (Dissolved)	ug/L	0.2 U	0.1 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.1 U	0.2 U [0.2 U]
Aroclor-1232 (Dissolved)	ug/L	0.4 U	0.1 U	0.4 U	0.4 U [0.4 U]	0.4 U	0.1 U	0.4 U [0.4 U]
Aroclor-1242 (Dissolved)	ug/L	0.2 U	0.1 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.1 U	0.2 U [0.2 U]

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PCBs-Dissolved (Cont'd.)								
Aroclor-1248 (Dissolved)	ug/L	0.2 U	0.43	0.57	0.2 U [0.2 U]	0.2 U	0.1 U	0.2 U [0.34]
Aroclor-1254 (Dissolved)	ug/L	0.2 U	0.1 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.1 U	0.2 U [0.2 U]
Aroclor-1260 (Dissolved)	ug/L	0.2 U	0.1 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.1 U	0.2 U [0.2 U]
Aroclor-1262 (Dissolved)	ug/L	NA	0.1 U	NA	NA	NA	0.1 U	NA
Aroclor-1268 (Dissolved)	ug/L	NA	0.1 U	NA	NA	NA	0.1 U	NA
Total PCBs (Dissolved)	ug/L	0.4 U	0.43	0.57	0.4 U [0.4 U]	0.4 U	0.1 U	0.4 U [0.34]
Organochlorine Pesticides								
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	0.2 U	NA	NA	0.2 U [0.2 U]	0.67	NA	NA
Aroclor-1221	ug/L	0.2 U	NA	NA	0.2 U [0.2 U]	0.2 U	NA	NA
Aroclor-1232	ug/L	0.4 U	NA	NA	0.4 U [0.4 U]	0.4 U	NA	NA
Aroclor-1242	ug/L	0.2 U	NA	NA	0.2 U [0.2 U]	0.2 U	NA	NA
Aroclor-1248	ug/L	1	NA	NA	0.64 [0.67]	0.2 U	NA	NA
Aroclor-1254	ug/L	0.4 U	NA	NA	0.2 U [0.2 U]	0.2 U	NA	NA
Aroclor-1260	ug/L	0.4 U	NA	NA	0.2 U [0.2 U]	0.2 U	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA
Organophosphate Pesticides								
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Eastern Type III Landfill B-4CAUG 48.2 - 53.2 06/04/96	Eastern Type III Landfill B-4CAUG 48.2 - 53.2 06/29/99	Eastern Type III Landfill B-4CAUG 48.2 - 53.2 05/23/00	Eastern Type III Landfill B-4DAUG 64.5 - 69.5 07/25/95	Eastern Type III Landfill B-4DAUG 64.5 - 69.5 06/04/96	Eastern Type III Landfill B-4DAUG 64.5 - 69.5 09/02/99	Eastern Type III Landfill B-4DAUG 64.5 - 69.5 05/22/00
Organophosphate Pesticides (Cont'd.)								
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA
Herbicides								
2,4,5-T	ug/L	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans								
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Eastern Type III Landfill B-4CAUG 48.2 - 53.2 06/04/96	Eastern Type III Landfill B-4CAUG 48.2 - 53.2 06/29/99	Eastern Type III Landfill B-4CAUG 48.2 - 53.2 05/23/00	Eastern Type III Landfill B-4DAUG 64.5 - 69.5 07/25/95	Eastern Type III Landfill B-4DAUG 64.5 - 69.5 06/04/96	Eastern Type III Landfill B-4DAUG 64.5 - 69.5 09/02/99	Eastern Type III Landfill B-4DAUG 64.5 - 69.5 05/22/00
Dioxins/Furans (Cont'd.)								
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Eastern Type III Landfill MW-133S1 37 - 42 07/20/95	Eastern Type III Landfill MW-133S2 49 - 54 07/20/95	Eastern Type III Landfill MW-133WT 4 - 14 07/20/95	Eastern Type III Landfill MW-134S1 34 - 39 07/20/95	Eastern Type III Landfill MW-134S2 46.7 - 51.7 07/20/95	Eastern Type III Landfill MW-134WT 4 - 9 07/20/95	Green Point Landfill B-2BAUG 20 - 25 07/29/95
Volatile Organics								
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 UJ	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethene (total)	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	50 U	50 U [50 U]	50 U	50 U	50 U	50 U	50 U
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	50 UJ	50 U [50 U]	50 U	50 U	R	50 U	50 U
3-Chloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 UJ	50 U [50 U]	50 U	50 U	50 UJ	50 U	50 U
Acetone	ug/L	50 U	50 U [50 U]	50 U	50 U	50 U	50 U	3.9 J
Acetonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	1.0 UJ	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U
Bromomethane	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Disulfide	ug/L	50 U	50 U [50 U]	50 U	50 U	50 U	50 U	50 U
Carbon Tetrachloride	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Eastern Type III Landfill MW-133S1 37 - 42 07/20/95	Eastern Type III Landfill MW-133S2 49 - 54 07/20/95	Eastern Type III Landfill MW-133WT 4 - 14 07/20/95	Eastern Type III Landfill MW-134S1 34 - 39 07/20/95	Eastern Type III Landfill MW-134S2 46.7 - 51.7 07/20/95	Eastern Type III Landfill MW-134WT 4 - 9 07/20/95	Green Point Landfill B-2BAUG 20 - 25 07/29/95
Volatile Organics (Cont'd.)								
Chloroethane	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	ug/L	1.0 U	1.0 U [1.0 U]	1.5 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 UJ	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total 1,3-Dichloropropenes	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total Xylenes	ug/L	3.0 U	3.0 U [3.0 U]	1.9 U	3.0 U	3.0 U	3.0 U	3.0 U

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TABLE A-1
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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Eastern Type III Landfill MW-133S1 37 - 42 07/20/95	Eastern Type III Landfill MW-133S2 49 - 54 07/20/95	Eastern Type III Landfill MW-133WT 4 - 14 07/20/95	Eastern Type III Landfill MW-134S1 34 - 39 07/20/95	Eastern Type III Landfill MW-134S2 46.7 - 51.7 07/20/95	Eastern Type III Landfill MW-134WT 4 - 9 07/20/95	Green Point Landfill B-2BAUG 20 - 25 07/29/95
Semivolatile Organics								
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	50 U	50 U [50 U]	50 U	50 U	50 U	50 U	50 U
2,4,6-Trichlorophenol	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dichlorophenol	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dimethylphenol	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dinitrophenol	ug/L	20 U	20 U [20 U]	20 U	20 U	20 U	20 U	20 UJ
2,4-Dinitrotoluene	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Chlorophenol	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Methylnaphthalene	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Methylphenol	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	20 U	20 U [20 U]	20 U	20 U	20 U	20 U	20 U
2-Nitrophenol	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Picoline	ug/L	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	20 U	20 U [20 U]	20 U	20 U	20 U	20 U	20 U
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	20 U	20 U [20 U]	20 U	20 U	20 U	20 U	20 U
4,6-Dinitro-2-methylphenol	ug/L	20 U	20 U [20 U]	20 U	20 U	20 U	20 U	20 U
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloro-3-Methylphenol	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloroaniline	ug/L	20 U	20 U [20 U]	20 U	20 U	20 U	20 U	20 U
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methylphenol	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Eastern Type III Landfill MW-133S1 37 - 42 07/20/95	Eastern Type III Landfill MW-133S2 49 - 54 07/20/95	Eastern Type III Landfill MW-133WT 4 - 14 07/20/95	Eastern Type III Landfill MW-134S1 34 - 39 07/20/95	Eastern Type III Landfill MW-134S2 46.7 - 51.7 07/20/95	Eastern Type III Landfill MW-134WT 4 - 9 07/20/95	Green Point Landfill B-2BAUG 20 - 25 07/29/95
Semivolatile Organics (Cont'd.)								
4-Nitroaniline	ug/L	20 U	20 U [20 U]	20 U	20 U	20 U	20 U	20 UJ
4-Nitrophenol	ug/L	20 U	20 U [20 U]	20 U	20 U	20 U	20 U	20 U
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acenaphthylene	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(a)pyrene	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(b)fluoranthene	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(g,h,i)perylene	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(k)fluoranthene	ug/L	5.0 U	5.0 UJ [5.0 U]	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Chloroethyl)ether	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Ethylhexyl)phthalate	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	1.1 U	5.0 U	5.0 U
Butylbenzylphthalate	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	10 U	10 U [10 U]	10 U	10 U	10 U	10 U	10 U
Chrysene	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Diallate	ug/L	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibenzofuran	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Diethylphthalate	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dimethylphthalate	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Di-n-Butylphthalate	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Di-n-Octylphthalate	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Diphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Fluorene	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobenzene	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobutadiene	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorocyclopentadiene	ug/L	5.0 U	5.0 UJ [5.0 U]	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 UJ
Hexachloroethane	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

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TABLE A-1
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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Eastern Type III Landfill MW-133S1 37 - 42 07/20/95	Eastern Type III Landfill MW-133S2 49 - 54 07/20/95	Eastern Type III Landfill MW-133WT 4 - 14 07/20/95	Eastern Type III Landfill MW-134S1 34 - 39 07/20/95	Eastern Type III Landfill MW-134S2 46.7 - 51.7 07/20/95	Eastern Type III Landfill MW-134WT 4 - 9 07/20/95	Green Point Landfill B-2BAUG 20 - 25 07/29/95
Semivolatile Organics (Cont'd.)								
Isophorone	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Isosafrole	ug/L	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Nitrobenzene	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosodiphenylamine	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	25 U	25 U [25 U]	25 U	25 U	25 U	25 U	25 U
Phenacetin	ug/L	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Phenol	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Pronamide	ug/L	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
PCBs								
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA
PCBs-Dissolved								
Aroclor-1016 (Dissolved)	ug/L	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	0.2 U	0.23 U
Aroclor-1221 (Dissolved)	ug/L	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	0.2 U	0.23 U
Aroclor-1232 (Dissolved)	ug/L	0.4 U	0.4 U [0.4 U]	0.4 U	0.4 U	0.4 U	0.4 U	0.46 U
Aroclor-1242 (Dissolved)	ug/L	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	0.2 U	0.23 U

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TABLE A-1
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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
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SAGINAW, MICHIGAN

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PCBs-Dissolved (Cont'd.)								
Aroclor-1248 (Dissolved)	ug/L	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	0.2 U	0.23 U
Aroclor-1254 (Dissolved)	ug/L	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	0.2 U	0.23 U
Aroclor-1260 (Dissolved)	ug/L	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	0.2 U	0.23 U
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	0.4 U	0.4 U [0.4 U]	0.4 U	0.4 U	0.4 U	0.4 U	0.46 U
Organochlorine Pesticides								
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	0.2 U	0.21 U
Aroclor-1221	ug/L	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	0.2 U	0.21 U
Aroclor-1232	ug/L	0.4 U	0.4 U [0.4 U]	0.4 U	0.4 U	0.4 U	0.4 U	0.42 U
Aroclor-1242	ug/L	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	0.2 U	0.21 U
Aroclor-1248	ug/L	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	0.2 U	0.21 U
Aroclor-1254	ug/L	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	0.2 U	0.21 U
Aroclor-1260	ug/L	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	0.2 U	0.21 U
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA
Organophosphate Pesticides								
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA

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Organophosphate Pesticides (Cont'd.)								
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA
Herbicides								
2,4,5-T	ug/L	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans								
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA

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Dioxins/Furans (Cont'd.)								
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	Green Point Landfill B-2R 3 - 13 07/29/95	Green Point Landfill B-2R 3 - 13 06/11/96	Green Point Landfill B-2R 3 - 13 05/23/00	Green Point Landfill MW-128S1 23.9 - 28.9 07/26/95	Green Point Landfill MW-128S1 23.9 - 28.9 05/19/00	Green Point Landfill MW-128S1 23.9 - 28.9 06/20/01	Green Point Landfill MW-128S1 23.9 - 28.9 06/26/02	Green Point Landfill MW-128S1 23.9 - 28.9 06/18/03
Volatile Organics									
1,1,1,2-Tetrachloroethane	ug/L	1.0 U	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	NA	NA	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA	NA	1.0 U	NA
1,1,2-Trichloroethane	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	1.0 U	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	1.0 U	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	R	NA	NA	NA	NA	NA	2.0 U	NA
1,2-Dibromoethane	ug/L	1.0 U	NA	NA	NA	NA	NA	1.0 U	NA
1,2-Dichlorobenzene	ug/L	1.0 U	5.0 U	NA	1.0 U	NA	NA	1.0 U	NA
1,2-Dichloroethane	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethene (total)	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	NA	NA
1,2-Dichloropropane	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1.0 U	5.0 U	NA	1.0 U	NA	NA	1.0 U	NA
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	1.0 U	5.0 U	NA	1.0 U	NA	NA	1.0 U	NA
1,4-Dioxane	ug/L	R	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	5.0 UJ	NA	NA	50 U	10 U	10 U	10 U	2.0 U
2-Chloro-1,3-butadiene	ug/L	1.0 U	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	5.0 U	NA	NA	R	10 U	10 U	10 U	2.0 U
3-Chloropropene	ug/L	2.0 U	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	5.0 U	NA	NA	50 U	10 U	5.0 U	10 U	2.0 U
Acetone	ug/L	10 UJ	NA	NA	6.7 J	10 U	10 U	10 UJ	2.0 U
Acetonitrile	ug/L	10 U	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	R	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	10 U	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	1.0 U	NA	NA	1.0 U	0.28 J	0.27 J	0.33 J	0.50 J
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Disulfide	ug/L	1.0 U	NA	NA	50 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Tetrachloride	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	Green Point Landfill B-2R 3 - 13 07/29/95	Green Point Landfill B-2R 3 - 13 06/11/96	Green Point Landfill B-2R 3 - 13 05/23/00	Green Point Landfill MW-128S1 23.9 - 28.9 07/26/95	Green Point Landfill MW-128S1 23.9 - 28.9 05/19/00	Green Point Landfill MW-128S1 23.9 - 28.9 06/20/01	Green Point Landfill MW-128S1 23.9 - 28.9 06/26/02	Green Point Landfill MW-128S1 23.9 - 28.9 06/18/03
Volatile Organics (Cont'd.)									
Chloroethane	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U	NA	NA	1.0 U	0.50 U	0.50 U	0.50 U	1.0 U
cis-1,3-Dichloropropene	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	1.0 U	NA
Dibromochloromethane	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromomethane	ug/L	1.0 U	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	1.0 U	NA	NA	NA	NA	NA	1.0 U	NA
Ethyl Methacrylate	ug/L	1.0 U	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	1.0 U	NA	NA	NA	NA	NA	NA	NA
Isobutanol	ug/L	R	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA	NA	1.0 U	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	1.0 U	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA	NA	10 U	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	1.0 U	NA
Methyl Methacrylate	ug/L	1.0 U	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA	NA	0.25 J	NA
Methylene Chloride	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	R	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U	NA	NA	1.0 U	0.50 U	0.50 U	0.50 U	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 U	NA	NA	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,4-Dichloro-2-butene	ug/L	R	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	ug/L	1.0 U	NA	NA	NA	NA	NA	1.0 U	NA
Vinyl Acetate	ug/L	2.0 U	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total 1,3-Dichloropropenes	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total Xylenes	ug/L	1.0 U	NA	NA	3.0 U	1.0 U	1.0 U	1.0 U	1.0 U

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

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Semivolatile Organics									
1,2,4,5-Tetrachlorobenzene	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	50 U	5.0 U	5.0 U	5.0 U	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	1.0 U	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	R	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	1.0 U	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	1.0 U	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	50 U	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	10 U	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ	NA	NA	NA	NA
2,3,4,6-Tetrachlorophenol	ug/L	50 U	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	10 U	50 U	5.0 U	50 U	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	5.0 U	5.0 U	10 U	5.0 U	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	20 U	20 U	20 U	20 U	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA	NA
2,6-Dichlorophenol	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA	NA
2-Acetylaminofluorene	ug/L	100 U	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA	NA
2-Chlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA	NA
2-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA	NA
2-Naphthylamine	ug/L	10 U	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	20 U	20 U	20 U	20 U	NA	NA	NA	NA
2-Nitrophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA	NA
2-Picoline	ug/L	20 U	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	20 U	20 U	20 U	20 U	NA	NA	NA	NA
3,3'-Dimethylbenzidine	ug/L	10 U	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	20 U	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	20 U	20 U	20 U	20 U	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	20 U	20 U	20 U	20 U	NA	NA	NA	NA
4-Aminobiphenyl	ug/L	50 U	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA	NA
4-Chloroaniline	ug/L	10 U	20 U	10 U	20 U	NA	NA	NA	NA
4-Chlorobenzilate	ug/L	10 U	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA	NA
4-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA	NA

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Semivolatile Organics (Cont'd.)									
4-Nitroaniline	ug/L	20 UJ	20 U	20 U	20 U	NA	NA	NA	NA
4-Nitrophenol	ug/L	20 U	20 U	20 U	20 U	NA	NA	NA	NA
4-Nitroquinoline-1-oxide	ug/L	100 U	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	100 U	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	20 U	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	20 U	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	50 UJ	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA	NA
Acenaphthylene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA	NA
Acetophenone	ug/L	10 U	NA	NA	NA	NA	NA	NA	NA
Aniline	ug/L	10 U	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA	NA
Benzyl Alcohol	ug/L	10 U	NA	NA	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	19 J	5.0 UJ	5.0 U	5.0 U	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	10 U	10 U	10 U	NA	NA	NA	NA
Chrysene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA	NA
Diallate	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA	NA
Dibenzofuran	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA	NA
Diethylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA	NA
Dimethylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA	NA
Diphenylamine	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	10 U	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA	NA
Fluorene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA	NA
Hexachlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA	NA
Hexachloroethane	ug/L	5.0 U	2.0 U	5.0 U	5.0 U	NA	NA	NA	NA
Hexachloropropene	ug/L	100 U	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	Green Point Landfill B-2R 3 - 13 07/29/95	Green Point Landfill B-2R 3 - 13 06/11/96	Green Point Landfill B-2R 3 - 13 05/23/00	Green Point Landfill MW-128S1 23.9 - 28.9 07/26/95	Green Point Landfill MW-128S1 23.9 - 28.9 05/19/00	Green Point Landfill MW-128S1 23.9 - 28.9 06/20/01	Green Point Landfill MW-128S1 23.9 - 28.9 06/26/02	Green Point Landfill MW-128S1 23.9 - 28.9 06/18/03
Semivolatile Organics (Cont'd.)									
Isophorone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA	NA
Isosafrole	ug/L	20 U	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	ug/L	50 U	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	10 U	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA	NA
Nitrobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA	NA
N-Nitrosodiethylamine	ug/L	10 U	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	10 U	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA	NA
N-Nitrosomethylethylamine	ug/L	10 U	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	10 U	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	10 U	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	10 U	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	ug/L	20 U	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	20 U	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	10 U	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	50 U	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	25 U	25 U	1.0 U	25 U	NA	NA	NA	NA
Phenacetin	ug/L	20 U	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA	NA
Phenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA	NA
Pronamide	ug/L	20 U	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA	NA
Pyridine	ug/L	10 U	NA	NA	NA	NA	NA	NA	NA
Safrole	ug/L	20 U	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA	NA
PCBs									
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
PCBs-Dissolved									
Aroclor-1016 (Dissolved)	ug/L	0.2 U	NA	NA	0.2 U	NA	NA	NA	NA
Aroclor-1221 (Dissolved)	ug/L	0.2 U	NA	NA	0.2 U	NA	NA	NA	NA
Aroclor-1232 (Dissolved)	ug/L	0.4 U	NA	NA	0.41 U	NA	NA	NA	NA
Aroclor-1242 (Dissolved)	ug/L	0.2 U	NA	NA	0.2 U	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

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PCBs-Dissolved (Cont'd.)									
Aroclor-1248 (Dissolved)	ug/L	0.2 U	NA	NA	0.2 U	NA	NA	NA	NA
Aroclor-1254 (Dissolved)	ug/L	0.2 U	NA	NA	0.2 U	NA	NA	NA	NA
Aroclor-1260 (Dissolved)	ug/L	0.2 U	NA	NA	0.2 U	NA	NA	NA	NA
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	0.4 U	NA	NA	0.41 U	NA	NA	NA	NA
Organochlorine Pesticides									
4,4'-DDD	ug/L	0.02 U	NA	NA	0.02 U	NA	NA	NA	NA
4,4'-DDE	ug/L	0.02 U	NA	NA	0.02 U	NA	NA	NA	NA
4,4'-DDT	ug/L	0.02 UJ	NA	NA	0.02 U	NA	NA	NA	NA
Aldrin	ug/L	0.01 U	NA	NA	0.01 U	NA	NA	NA	NA
Alpha-BHC	ug/L	0.01 U	NA	NA	0.01 U	NA	NA	NA	NA
Alpha-Chlordane	ug/L	0.02 U	NA	NA	0.01 U	NA	NA	NA	NA
Aroclor-1016	ug/L	0.2 U	NA	NA	0.2 U	NA	NA	NA	NA
Aroclor-1221	ug/L	0.2 U	NA	NA	0.2 U	NA	NA	NA	NA
Aroclor-1232	ug/L	0.4 U	NA	NA	0.4 U	NA	NA	NA	NA
Aroclor-1242	ug/L	0.2 U	NA	NA	0.2 U	NA	NA	NA	NA
Aroclor-1248	ug/L	0.2 U	NA	NA	0.2 U	NA	NA	NA	NA
Aroclor-1254	ug/L	0.2 U	NA	NA	0.2 U	NA	NA	NA	NA
Aroclor-1260	ug/L	0.2 U	NA	NA	0.2 U	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	0.01 U	NA	NA	0.01 U	NA	NA	NA	NA
Delta-BHC	ug/L	0.01 U	NA	NA	0.01 U	NA	NA	NA	NA
Dieldrin	ug/L	0.02 U	NA	NA	0.02 U	NA	NA	NA	NA
Endosulfan I	ug/L	0.01 U	NA	NA	0.01 U	NA	NA	NA	NA
Endosulfan II	ug/L	0.02 U	NA	NA	0.02 U	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	0.02 U	NA	NA	0.02 U	NA	NA	NA	NA
Endrin	ug/L	0.02 UJ	NA	NA	0.02 U	NA	NA	NA	NA
Endrin Aldehyde	ug/L	0.02 U	NA	NA	0.02 U	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	0.02 U	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	0.01 U	NA	NA	0.01 U	NA	NA	NA	NA
Gamma-Chlordane	ug/L	0.02 U	NA	NA	0.01 U	NA	NA	NA	NA
Heptachlor	ug/L	0.01 UJ	NA	NA	0.01 U	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	0.01 U	NA	NA	0.01 U	NA	NA	NA	NA
Isodrin	ug/L	0.1 UJ	NA	NA	NA	NA	NA	NA	NA
Kepone	ug/L	1 UJ	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	0.1 UJ	NA	NA	0.5 UJ	NA	NA	NA	NA
Toxaphene	ug/L	1 U	NA	NA	1 U	NA	NA	NA	NA
Organophosphate Pesticides									
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

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Organophosphate Pesticides (Cont'd.)									
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	1 U	NA	NA	NA	NA	NA	NA	NA
Disulfoton	ug/L	1 U	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	1 U	NA	NA	NA	NA	NA	NA	NA
Famphur	ug/L	1 U	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	1 U	NA	NA	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	1 U	NA	NA	NA	NA	NA	NA	NA
Phorate	ug/L	1 U	NA	NA	NA	NA	NA	NA	NA
Sulfotep	ug/L	1 U	NA	NA	NA	NA	NA	NA	NA
Thionazin	ug/L	1 U	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides									
2,4,5-T	ug/L	1 UJ	NA	NA	1 UJ	NA	NA	NA	NA
2,4,5-TP	ug/L	1 UJ	NA	NA	1 UJ	NA	NA	NA	NA
2,4-D	ug/L	4 UJ	NA	NA	4 U	NA	NA	NA	NA
Dinoseb	ug/L	0.6 UJ	NA	NA	1 U*	NA	NA	NA	NA
Dioxins/Furans									
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	0.0000057 U	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	0.000012 U	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	0.0000027 U	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	0.00000081 U	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	0.0000011 U	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	0.0000019 U	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	0.00000079 U	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	0.0000016 U	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	0.0000006 U	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	0.0000019 U	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	0.00000079 U	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	0.00000098 U	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	0.0000014 U	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	0.0000026 U	NA	NA	NA	NA	NA	NA

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Dioxins/Furans (Cont'd.)									
2,3,4,7,8-PeCDF	ug/L	NA	0.0000012 U	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	0.0000033 U	0.0000019 U	NA	0.0000028 U	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	0.0000012 U	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	0.0000011 U	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	0.0000027 U	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	0.000012 U	0.0000026 U	NA	0.0000022 U	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	0.000022 U	0.0000019 U	NA	0.0000048 U	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	0.00006 U	0.0000014 U	NA	0.0000062 U	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	0.0000096 U	0.00000098 U	NA	0.000012 U	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	0.00006	0.0000012 U	NA	0.0000013 U	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	0.0000025 U	0.0000019 U	NA	0.0000028 U	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	0.00000432	NA	NA	NA	NA	NA	NA	NA

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Volatile Organics									
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	1.0 U	NA	NA	NA	1.0 U	NA
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.0 UJ	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	5.0 U	NA	NA	NA	1.0 U	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	1.0 U	NA	NA	NA	2.0 U	NA
1,2-Dibromoethane	ug/L	NA	NA	1.0 U	NA	NA	NA	1.0 U	NA
1,2-Dichlorobenzene	ug/L	NA	NA	1.0 U	1.0 U	NA	NA	1.0 U	NA
1,2-Dichloroethane	ug/L	1.0 UJ	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethene (total)	ug/L	NA	2.0 U [2.0 U]	NA	1.0 U	1.0 U	1.0 U	NA	NA
1,2-Dichloropropane	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	1.0 U	1.0 U	NA	NA	1.0 U	NA
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	1.0 U	1.0 U	NA	NA	1.0 U	NA
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	2.0 UJ	0.98 J [1.1 J]	2.7 J	50 U	10 U	10 U	10 U	2.0 U
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	2.0 UJ	50 U [50 U]	50 U	R	10 U	10 U	10 U	2.0 U
3-Chloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	0.48 J	50 U [50 U]	50 U	50 U	10 U	5.0 U	10 U	2.0 U
Acetone	ug/L	5.7 UJ	1.6 J [2.2 J]	25 UJ	7.3 J	10 U	10 U	10 UJ	2.0 U
Acetonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	1.0 U	0.49 J [0.50 J]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Disulfide	ug/L	1.0 U	5.0 U [5.0 U]	5.0 U	50 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Tetrachloride	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

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Volatile Organics (Cont'd.)									
Chloroethane	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	0.50 U	0.50 U	0.50 U	1.0 U
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	NA	NA	1.0 U	NA	NA	NA	1.0 U	NA
Dibromochloromethane	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	1.0 U	NA	NA	NA	1.0 U	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	0.62 J	NA	NA	NA	1.0 U	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	10 U	NA	NA	NA	10 U	NA
Methyl cyclohexane	ug/L	NA	NA	1.0 U	NA	NA	NA	1.0 U	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	5.0 U	NA	NA	NA	0.18 J	NA
Methylene Chloride	ug/L	1.0 UJ	5.0 U [5.0 U]	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	0.50 U	0.50 U	0.50 U	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1.0 U	2.0 [2.0]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	ug/L	NA	NA	1.0 U	NA	NA	NA	1.0 U	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total 1,3-Dichloropropenes	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total Xylenes	ug/L	1.0 U	2.0 U [2.0 U]	5.9	3.0 U	1.0 U	1.0 U	1.0 U	1.0 U

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TABLE A-1
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SAGINAW, MICHIGAN

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Semivolatile Organics									
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	NA	NA	NA	10 UJ	NA	NA	NA	NA
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	100 U	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	40 U	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
2-Methylphenol	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	40 U	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
2-Picoline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	40 U	NA	NA	NA	NA
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	40 U	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	40 U	NA	NA	NA	NA
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
4-Chloroaniline	ug/L	NA	NA	NA	40 U	NA	NA	NA	NA
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
4-Methylphenol	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA

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TABLE A-1
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ORGANIC COMPOUNDS

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Semivolatile Organics (Cont'd.)									
4-Nitroaniline	ug/L	NA	NA	NA	40 U	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	40 U	NA	NA	NA	NA
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	20 U	NA	NA	NA	NA
Chrysene	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
Diallate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
Diethylphthalate	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
Dimethylphthalate	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
Diphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
Fluorene	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
Hexachloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA

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Semivolatile Organics (Cont'd.)									
Isophorone	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
Isosafrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	50 U	NA	NA	NA	NA
Phenacetin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
Phenol	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
Pronamide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA
PCBs									
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
PCBs-Dissolved									
Aroclor-1016 (Dissolved)	ug/L	NA	NA	NA	0.2 U	NA	NA	NA	NA
Aroclor-1221 (Dissolved)	ug/L	NA	NA	NA	0.2 U	NA	NA	NA	NA
Aroclor-1232 (Dissolved)	ug/L	NA	NA	NA	0.4 U	NA	NA	NA	NA
Aroclor-1242 (Dissolved)	ug/L	NA	NA	NA	0.2 U	NA	NA	NA	NA

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PCBs-Dissolved (Cont'd.)									
Aroclor-1248 (Dissolved)	ug/L	NA	NA	NA	0.2 U	NA	NA	NA	NA
Aroclor-1254 (Dissolved)	ug/L	NA	NA	NA	0.2 U	NA	NA	NA	NA
Aroclor-1260 (Dissolved)	ug/L	NA	NA	NA	0.2 U	NA	NA	NA	NA
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	NA	0.4 U	NA	NA	NA	NA
Organochlorine Pesticides									
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	NA	NA	NA	0.2 U	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	0.2 U	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	0.4 U	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	0.2 U	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	0.2 U	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	0.2 U	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	0.2 U	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Organophosphate Pesticides									
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Green Point Landfill MW-128S1 23.9 - 28.9 05/25/04	Green Point Landfill MW-128S1 23.9 - 28.9 06/22/05	Green Point Landfill MW-128S1 23.9 - 28.9 12/12/06	Green Point Landfill MW-128WT 8.1 - 18.1 07/26/95	Green Point Landfill MW-128WT 8.1 - 18.1 05/19/00	Green Point Landfill MW-128WT 8.1 - 18.1 06/20/01	Green Point Landfill MW-128WT 8.1 - 18.1 06/26/02	Green Point Landfill MW-128WT 8.1 - 18.1 06/18/03
Organophosphate Pesticides (Cont'd.)									
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides									
2,4,5-T	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans									
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

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Dioxins/Furans (Cont'd.)									
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	Green Point Landfill MW-128WT 8.1 - 18.1 05/25/04	Green Point Landfill MW-128WT 8.1 - 18.1 06/22/05	Green Point Landfill MW-128WT 8.1 - 18.1 12/13/06	Green Point Landfill MW-129WT 2 - 12 07/28/95	Green Point Landfill MW-129WT 2 - 12 06/12/96	Green Point Landfill MW-129WT 2 - 12 09/17/04	Green Point Landfill X-1A 14 - 17 07/29/95	Green Point Landfill X-1A 14 - 17 06/10/96
Volatile Organics									
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	3.6 U	2.1 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	3.6 U	2.1 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	2.0 U	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	3.6 U	2.1 U
1,1-Dichloroethane	ug/L	1.0 UJ	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	3.6 U	2.1 U
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	3.6 U	2.1 U
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	2.0 U	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	2.0 U	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	2.0 U	1.0 U	1.0 U	NA	3.6 U	2.1 U
1,2-Dichloroethane	ug/L	1.0 UJ	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	3.6 U	2.1 U
1,2-Dichloroethene (total)	ug/L	NA	2.0 U	NA	1.9	1.0 U	1.1 J [1.1 J]	3.6 U	2.1 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	3.6 U	2.1 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	2.0 U	1.0 U	1.0 U	NA	3.6 U	2.1 U
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	2.0 U	1.0 U	1.0 U	NA	3.6 U	2.1 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	2.0 UJ	1.4 J	50 UJ	50 UJ	50 U	25 U [25 U]	180 U	100 U
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	2.0 UJ	50 U	100 UJ	50 U	50 U	50 U [50 U]	180 U	100 U
3-Chloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	2.0 UJ	50 U	100 U	50 U	50 U	50 U [50 U]	180 U	100 U
Acetone	ug/L	8.6 UJ	4.4 J	50 UJ	50 UJ	100 U	25 U [25 U]	180 U	210 U
Acetonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	1.0 U	1.0 U	2.0 U	1.0 U	5.0 U	1.0 U [1.0 U]	9.5	8.7 J
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	3.6 U	2.1 U
Bromoform	ug/L	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	3.6 U	2.1 U
Bromomethane	ug/L	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 UJ [1.0 UJ]	3.6 U	2.1 U
Carbon Disulfide	ug/L	1.0 U	5.0 U	10 U	50 U	50 U	5.0 U [5.0 U]	180 U	100 U
Carbon Tetrachloride	ug/L	1.0 U	1.0 U	2.0 UJ	1.0 U	1.0 U	1.0 U [1.0 U]	3.6 U	2.1 U
Chlorobenzene	ug/L	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	3.6 U	2.1 U

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Volatile Organics (Cont'd.)									
Chloroethane	ug/L	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	66	65
Chloroform	ug/L	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	3.6 U	2.1 U
Chloromethane	ug/L	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 UJ [1.0 UJ]	3.6 U	2.1 U
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	2.0 U	1.9	1.0 U	1.1 [1.1 J]	3.6 U	2.1 U
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	3.6 U	2.1 U
Cyclohexane	ug/L	NA	NA	2.0 U	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	3.6 U	2.1 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	2.0 UJ	NA	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	3.6 U	2.1 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	20 U	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	2.0 U	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	1.0 UJ	5.0 U	10 U	1.0 U	5.0 U	5.0 UJ [5.0 UJ]	3.6 U	5.0 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	3.6 U	2.1 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	3.6 U	2.1 U
Toluene	ug/L	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	3.6 U	2.1 U
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	3.6 U	2.1 U
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	3.6 U	2.1 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1.0 U	0.99 J	2.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	3.6 U	2.1 U
Trichlorofluoromethane	ug/L	NA	NA	2.0 U	NA	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	1.5	1.0 U	2.0 U	1.0 U	1.0 U	0.59 J [0.60 J]	3.6 U	2.1 U
Total 1,3-Dichloropropenes	ug/L	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	3.6 U	2.1 U
Total Xylenes	ug/L	1.0 U	2.0 U	4.0 U	3.0 U	3.0 U	2.0 U [2.0 U]	11 U	6.2 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Green Point Landfill MW-128WT 8.1 - 18.1 05/25/04	Green Point Landfill MW-128WT 8.1 - 18.1 06/22/05	Green Point Landfill MW-128WT 8.1 - 18.1 12/13/06	Green Point Landfill MW-129WT 2 - 12 07/28/95	Green Point Landfill MW-129WT 2 - 12 06/12/96	Green Point Landfill MW-129WT 2 - 12 09/17/04	Green Point Landfill X-1A 14 - 17 07/29/95	Green Point Landfill X-1A 14 - 17 06/10/96
Semivolatile Organics									
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	5.0 U	5.0 U	10 U [10 U]	5.0 U	5.0 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	10 U [10 U]	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	10 U [10 U]	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	10 U [10 U]	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	NA	NA	NA	5.0 U	5.0 U	4.0 U [4.0 U]	5.0 U	5.0 U
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	50 U	50 U	5.0 U [5.0 U]	50 U	50 U
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
2,4-Dichlorophenol	ug/L	NA	NA	NA	5.0 U	5.0 U	4.0 U [4.0 U]	5.0 U	5.0 U
2,4-Dimethylphenol	ug/L	NA	NA	NA	5.0 U	5.0 U	10 U [10 U]	5.0 U	5.0 U
2,4-Dinitrophenol	ug/L	NA	NA	NA	20 U	20 U	NA	20 UJ	20 U
2,4-Dinitrotoluene	ug/L	NA	NA	NA	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	NA	NA	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
2-Chlorophenol	ug/L	NA	NA	NA	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
2-Methylnaphthalene	ug/L	NA	NA	NA	5.0 U	5.0 U	5.0 U [5.0 U]	1.0 J	5.0 U
2-Methylphenol	ug/L	NA	NA	NA	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	20 U	20 U	5.0 U [5.0 U]	20 U	20 U
2-Nitrophenol	ug/L	NA	NA	NA	5.0 U	5.0 U	20 U [20 U]	5.0 U	5.0 U
2-Picoline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	20 U	20 U	5.0 U [5.0 U]	20 U	20 U
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	20 U	20 U	4.0 U [4.0 U]	20 U	20 U
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	20 U	20 U	20 U [20 U]	20 U	20 U
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	5.0 U	5.0 U	20 U [20 U]	5.0 U	5.0 U
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
4-Chloroaniline	ug/L	NA	NA	NA	20 U	20 U	5.0 U [5.0 U]	20 U	20 U
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	5.0 U	5.0 U	20 U [20 U]	5.0 U	5.0 U
4-Methylphenol	ug/L	NA	NA	NA	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Green Point Landfill MW-128WT 8.1 - 18.1 05/25/04	Green Point Landfill MW-128WT 8.1 - 18.1 06/22/05	Green Point Landfill MW-128WT 8.1 - 18.1 12/13/06	Green Point Landfill MW-129WT 2 - 12 07/28/95	Green Point Landfill MW-129WT 2 - 12 06/12/96	Green Point Landfill MW-129WT 2 - 12 09/17/04	Green Point Landfill X-1A 14 - 17 07/29/95	Green Point Landfill X-1A 14 - 17 06/10/96
Semivolatile Organics (Cont'd.)									
4-Nitroaniline	ug/L	NA	NA	NA	20 U	20 U	5.0 U [5.0 U]	20 UJ	20 U
4-Nitrophenol	ug/L	NA	NA	NA	20 U	20 U	NA	20 U	20 U
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	5.0 U	5.0 U	20 U [20 U]	5.0 U	5.0 U
Acenaphthylene	ug/L	NA	NA	NA	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	5.0 U	5.0 U	5.0 U [5.0 U]	0.58 J	5.0 U
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	NA	NA	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
Benzo(a)pyrene	ug/L	NA	NA	NA	5.0 U	5.0 U	1.0 U [1.0 U]	5.0 U	5.0 U
Benzo(b)fluoranthene	ug/L	NA	NA	NA	5.0 U	5.0 U	2.0 U [2.0 U]	5.0 U	5.0 U
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	5.0 U	5.0 U	2.0 U [2.0 U]	5.0 U	5.0 U
Benzo(k)fluoranthene	ug/L	NA	NA	NA	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	1.2 J	5.0 U	5.0 U [6.7]	5.0 U	5.0 U
Butylbenzylphthalate	ug/L	NA	NA	NA	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	10 U	10 U	10 U [10 U]	2.6 J	1.6 J
Chrysene	ug/L	NA	NA	NA	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
Diallate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	5.0 U	5.0 U	2.0 U [2.0 U]	5.0 U	5.0 U
Dibenzofuran	ug/L	NA	NA	NA	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
Diethylphthalate	ug/L	NA	NA	NA	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
Dimethylphthalate	ug/L	NA	NA	NA	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
Di-n-Butylphthalate	ug/L	NA	NA	NA	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
Di-n-Octylphthalate	ug/L	NA	NA	NA	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
Diphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
Fluorene	ug/L	NA	NA	NA	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
Hexachlorobenzene	ug/L	NA	NA	NA	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 UJ	5.0 U
Hexachloroethane	ug/L	NA	NA	NA	5.0 U	2.0 U	5.0 U [5.0 U]	5.0 U	2.0 U
Hexachloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	5.0 U	5.0 U	2.0 U [2.0 U]	5.0 U	5.0 U

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ORGANIC COMPOUNDS

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SAGINAW, MICHIGAN

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Semivolatile Organics (Cont'd.)									
Isophorone	ug/L	NA	NA	NA	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
Isosafrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
Nitrobenzene	ug/L	NA	NA	NA	5.0 U	5.0 U	4.0 U [4.0 U]	5.0 U	5.0 U
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	25 U	25 U	20 U [20 U]	25 U	25 U
Phenacetin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	5.0 U	5.0 U	5.0 U [5.0 U]	0.70 J	5.0 U
Phenol	ug/L	NA	NA	NA	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
Pronamide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	NA	NA	NA	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
PCBs									
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
PCBs-Dissolved									
Aroclor-1016 (Dissolved)	ug/L	NA	NA	NA	0.2 U	0.2 U	NA	0.2 U	0.2 U
Aroclor-1221 (Dissolved)	ug/L	NA	NA	NA	0.2 U	0.2 U	NA	0.2 U	0.2 U
Aroclor-1232 (Dissolved)	ug/L	NA	NA	NA	0.4 U	0.4 U	NA	0.4 U	0.4 U
Aroclor-1242 (Dissolved)	ug/L	NA	NA	NA	0.2 U	0.2 U	NA	0.2 U	0.2 U

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Green Point Landfill MW-128WT 8.1 - 18.1 05/25/04	Green Point Landfill MW-128WT 8.1 - 18.1 06/22/05	Green Point Landfill MW-128WT 8.1 - 18.1 12/13/06	Green Point Landfill MW-129WT 2 - 12 07/28/95	Green Point Landfill MW-129WT 2 - 12 06/12/96	Green Point Landfill MW-129WT 2 - 12 09/17/04	Green Point Landfill X-1A 14 - 17 07/29/95	Green Point Landfill X-1A 14 - 17 06/10/96
PCBs-Dissolved (Cont'd.)									
Aroclor-1248 (Dissolved)	ug/L	NA	NA	NA	0.2 U	0.2 U	NA	0.2 U	0.2 U
Aroclor-1254 (Dissolved)	ug/L	NA	NA	NA	0.2 U	0.2 U	NA	0.2 U	0.2 U
Aroclor-1260 (Dissolved)	ug/L	NA	NA	NA	0.2 U	0.2 U	NA	0.2 U	0.2 U
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	NA	0.4 U	0.4 U	NA	0.4 U	0.4 U
Organochlorine Pesticides									
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	NA	NA	NA	0.2 U	0.2 U	NA	0.4 U	0.2 U
Aroclor-1221	ug/L	NA	NA	NA	0.2 U	0.2 U	NA	0.4 U	0.2 U
Aroclor-1232	ug/L	NA	NA	NA	0.4 U	0.4 U	NA	0.8 U	0.4 U
Aroclor-1242	ug/L	NA	NA	NA	0.2 U	0.2 U	NA	0.4 U	0.2 U
Aroclor-1248	ug/L	NA	NA	NA	0.2 U	0.2 U	NA	1.9	0.2 U
Aroclor-1254	ug/L	NA	NA	NA	0.2 U	0.2 U	NA	1.1	0.2 U
Aroclor-1260	ug/L	NA	NA	NA	0.2 U	0.2 U	NA	0.4 U	0.2 U
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Organophosphate Pesticides									
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

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Organophosphate Pesticides (Cont'd.)									
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides									
2,4,5-T	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans									
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Green Point Landfill MW-128WT 8.1 - 18.1 05/25/04	Green Point Landfill MW-128WT 8.1 - 18.1 06/22/05	Green Point Landfill MW-128WT 8.1 - 18.1 12/13/06	Green Point Landfill MW-129WT 2 - 12 07/28/95	Green Point Landfill MW-129WT 2 - 12 06/12/96	Green Point Landfill MW-129WT 2 - 12 09/17/04	Green Point Landfill X-1A 14 - 17 07/29/95	Green Point Landfill X-1A 14 - 17 06/10/96
Dioxins/Furans (Cont'd.)									
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	Green Point Landfill X-1A 14 - 17 05/23/00	Green Point Landfill X-1A 14 - 17 06/20/01	Green Point Landfill X-1A 14 - 17 11/27/01	Green Point Landfill X-1A 14 - 17 06/25/02	Green Point Landfill X-1A 14 - 17 06/17/03	Green Point Landfill X-1A 14 - 17 05/25/04	Green Point Landfill X-1A 14 - 17 06/21/05	Green Point Landfill X-1A 14 - 17 12/12/06
Volatile Organics									
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	2.0 U	2.0 U	NA	1.0 U	1.0 U	1.0 U	1.7 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	2.0 U	2.0 U	NA	1.0 U	1.0 U	1.0 U	1.7 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	1.0 U	NA	NA	NA	1.0 U
1,1,2-Trichloroethane	ug/L	2.0 U	2.0 U	NA	1.0 U	1.0 U	1.0 U	1.7 U	1.0 U
1,1-Dichloroethane	ug/L	0.35 J	2.0 U	NA	0.54 J	0.38 J	0.51 J	1.7 U	0.35 J
1,1-Dichloroethene	ug/L	2.0 U	2.0 U	NA	1.0 U	1.0 U	1.0 U	1.7 U	1.0 U
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	1.0 U	NA	NA	NA	5.0 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	2.0 U	NA	NA	NA	1.0 U
1,2-Dibromoethane	ug/L	NA	NA	NA	1.0 U	NA	NA	NA	1.0 U
1,2-Dichlorobenzene	ug/L	NA	NA	NA	1.0 U	NA	NA	NA	1.0 U
1,2-Dichloroethane	ug/L	2.0 U	2.0 U	NA	1.0 U	1.0 U	1.0 UJ	1.7 U	1.0 U
1,2-Dichloroethene (total)	ug/L	2.0 U	2.0 U	NA	NA	NA	NA	3.3 U	NA
1,2-Dichloropropane	ug/L	2.0 U	2.0 U	NA	1.0 U	1.0 U	1.0 U	1.7 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	1.0 U	NA	NA	NA	1.0 U
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	0.32 J	NA	NA	NA	1.0 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	20 UJ	20 U	NA	10 U	2.0 U	2.0 UJ	1.1 J	25 U
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	20 U	20 U	NA	10 U	2.0 U	2.0 UJ	84 U	50 U
3-Chloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	20 U	10 U	NA	10 U	2.0 U	2.0 UJ	84 U	50 U
Acetone	ug/L	20 U	20 U	NA	10 U	2.0 UJ	2.4 UJ	42 U	25 UJ
Acetonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	8.0	9.3	NA	6.2	4.4	5.4	4.5	4.7
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	2.0 U	2.0 U	NA	1.0 U	1.0 U	1.0 U	1.7 U	1.0 U
Bromoform	ug/L	2.0 U	2.0 U	NA	1.0 U	1.0 U	1.0 U	1.7 U	1.0 U
Bromomethane	ug/L	0.34 J	2.0 U	NA	1.0 U	1.0 U	1.0 U	1.7 U	1.0 U
Carbon Disulfide	ug/L	2.0 U	2.0 U	NA	1.0 U	1.0 U	1.0 U	0.86 J	5.0 U
Carbon Tetrachloride	ug/L	2.0 U	2.0 U	NA	1.0 U	1.0 U	1.0 U	1.7 U	1.0 U
Chlorobenzene	ug/L	0.33 J	0.33 J	NA	0.21 J	1.0 U	1.0 U	1.7 U	1.0 U

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	Green Point Landfill X-1A 14 - 17 05/23/00	Green Point Landfill X-1A 14 - 17 06/20/01	Green Point Landfill X-1A 14 - 17 11/27/01	Green Point Landfill X-1A 14 - 17 06/25/02	Green Point Landfill X-1A 14 - 17 06/17/03	Green Point Landfill X-1A 14 - 17 05/25/04	Green Point Landfill X-1A 14 - 17 06/21/05	Green Point Landfill X-1A 14 - 17 12/12/06
Volatile Organics (Cont'd.)									
Chloroethane	ug/L	32	42	NA	15	8.5	8.4	6.9	6.8
Chloroform	ug/L	2.0 U	2.0 U	NA	1.0 U	1.0 U	1.0 U	1.7 U	1.0 U
Chloromethane	ug/L	2.0 UJ	2.0 U	NA	1.0 U	1.0 U	1.0 U	1.7 U	1.0 U
cis-1,2-Dichloroethene	ug/L	0.23 J	1.0 U	NA	0.45 J	1.0 U	0.30 J	1.7 U	0.28 J
cis-1,3-Dichloropropene	ug/L	2.0 U	2.0 U	NA	1.0 U	1.0 U	1.0 U	1.7 U	1.0 UJ
Cyclohexane	ug/L	NA	NA	NA	0.28 J	NA	NA	NA	0.28 J
Dibromochloromethane	ug/L	2.0 U	2.0 U	NA	1.0 U	1.0 U	1.0 U	1.7 U	1.0 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	1.0 U	NA	NA	NA	1.0 UJ
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	2.0 U	2.0 U	NA	1.0 U	1.0 U	1.0 U	1.7 U	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	9.2	NA	NA	NA	2.8 J
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	10 U	NA	NA	NA	10 U
Methyl cyclohexane	ug/L	NA	NA	NA	0.48 J	NA	NA	NA	1.0 U
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	5.0 U	NA	NA	NA	5.0 U
Methylene Chloride	ug/L	2.0 U	2.0 U	NA	1.0 U	1.0 U	1.0 UJ	8.4 U	5.0 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	2.0 U	2.0 U	NA	1.0 U	1.0 U	1.0 U	1.7 U	1.0 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	2.0 U	2.0 U	NA	1.0 U	1.0 U	1.0 U	1.7 U	1.0 UJ
Toluene	ug/L	2.0 U	2.0 U	NA	1.0 U	1.0 U	1.0 U	1.7 U	1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	NA	0.50 U	1.0 U	1.0 U	1.7 U	1.0 U
trans-1,3-Dichloropropene	ug/L	2.0 U	2.0 U	NA	1.0 U	1.0 U	1.0 U	1.7 U	1.0 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	2.0 U	2.0 U	NA	1.0 U	1.0 U	1.0 U	1.5 J	1.0 U
Trichlorofluoromethane	ug/L	NA	NA	NA	1.0 U	NA	NA	NA	1.0 U
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	2.0 U	2.0 U	NA	1.0 U	1.0 U	1.1	1.7 U	1.0 U
Total 1,3-Dichloropropenes	ug/L	2.0 U	2.0 U	NA	1.0 U	1.0 U	1.0 U	1.7 U	1.0 U
Total Xylenes	ug/L	2.5	2.3	NA	0.78 J	0.77 J	0.99 J	1.4 J	2.3

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Green Point Landfill X-1A 14 - 17 05/23/00	Green Point Landfill X-1A 14 - 17 06/20/01	Green Point Landfill X-1A 14 - 17 11/27/01	Green Point Landfill X-1A 14 - 17 06/25/02	Green Point Landfill X-1A 14 - 17 06/17/03	Green Point Landfill X-1A 14 - 17 05/25/04	Green Point Landfill X-1A 14 - 17 06/21/05	Green Point Landfill X-1A 14 - 17 12/12/06
Semivolatile Organics									
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
2-Picoline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	25 U	NA	NA	NA	NA	NA
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
4-Methylphenol	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Green Point Landfill X-1A 14 - 17 05/23/00	Green Point Landfill X-1A 14 - 17 06/20/01	Green Point Landfill X-1A 14 - 17 11/27/01	Green Point Landfill X-1A 14 - 17 06/25/02	Green Point Landfill X-1A 14 - 17 06/17/03	Green Point Landfill X-1A 14 - 17 05/25/04	Green Point Landfill X-1A 14 - 17 06/21/05	Green Point Landfill X-1A 14 - 17 12/12/06
Semivolatile Organics (Cont'd.)									
4-Nitroaniline	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
Caprolactam	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	2.7 J	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
Diallate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
Dimethylphthalate	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
Diphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
Fluorene	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	50 U	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
Hexachloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

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Semivolatile Organics (Cont'd.)									
Isophorone	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
Isosafrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
Phenacetin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
Phenol	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
Pronamide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
PCBs									
Aroclor-1016	ug/L	0.20 U	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	0.20 U	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	0.40 U	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	0.20 U	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	0.13 J	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	0.20 U	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	0.20 U	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	0.13 J	NA	NA	NA	NA	NA	NA	NA
PCBs-Dissolved									
Aroclor-1016 (Dissolved)	ug/L	0.2 U	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (Dissolved)	ug/L	0.2 U	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (Dissolved)	ug/L	0.4 U	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (Dissolved)	ug/L	0.2 U	NA	NA	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Green Point Landfill X-1A 14 - 17 05/23/00	Green Point Landfill X-1A 14 - 17 06/20/01	Green Point Landfill X-1A 14 - 17 11/27/01	Green Point Landfill X-1A 14 - 17 06/25/02	Green Point Landfill X-1A 14 - 17 06/17/03	Green Point Landfill X-1A 14 - 17 05/25/04	Green Point Landfill X-1A 14 - 17 06/21/05	Green Point Landfill X-1A 14 - 17 12/12/06
PCBs-Dissolved (Cont'd.)									
Aroclor-1248 (Dissolved)	ug/L	0.2 U	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (Dissolved)	ug/L	0.2 U	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (Dissolved)	ug/L	0.2 U	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	0.4 U	NA	NA	NA	NA	NA	NA	NA
Organochlorine Pesticides									
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Organophosphate Pesticides									
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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Organophosphate Pesticides (Cont'd.)									
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides									
2,4,5-T	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans									
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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Dioxins/Furans (Cont'd.)									
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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Volatile Organics									
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1.0 U	NA	1.0 U	1.0 U	NA	2.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	NA	1.0 U	1.0 U	NA	2.0 U	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA	2.0 U	NA	NA
1,1,2-Trichloroethane	ug/L	1.0 U	NA	1.0 U	1.0 U	NA	2.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	NA	0.13 J	0.18 J	NA	2.0 U	1.0 U	1.0 UJ
1,1-Dichloroethene	ug/L	1.0 U	NA	1.0 U	1.0 U	NA	2.0 U	1.0 U	1.0 U
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	2.0 U	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA	4.0 U	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA	2.0 U	NA	NA
1,2-Dichlorobenzene	ug/L	1.0 U	NA	NA	NA	NA	2.0 U	NA	NA
1,2-Dichloroethane	ug/L	1.0 U	NA	1.0 U	1.0 U	NA	2.0 U	1.0 U	1.0 UJ
1,2-Dichloroethene (total)	ug/L	1.0 U	NA	1.0 U	1.0 U	NA	NA	NA	NA
1,2-Dichloropropane	ug/L	1.0 U	NA	1.0 U	1.0 U	NA	2.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1.0 U	NA	NA	NA	NA	2.0 U	NA	NA
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	1.0 U	NA	NA	NA	NA	2.0 U	NA	NA
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	50 U	NA	10 UJ	10 U	NA	20 U	2.0 U	2.0 UJ
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	50 U	NA	10 U	10 U	NA	20 U	2.0 U	2.0 UJ
3-Chloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U	NA	10 U	5.0 U	NA	20 U	2.0 U	2.0 UJ
Acetone	ug/L	5.5 J	NA	16 U	11 U	NA	20 U	2.0 UJ	3.2 UJ
Acetonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	1.9	NA	1.2	2.2	NA	1.7 J	0.53 J	1.1
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1.0 U	NA	1.0 U	1.0 U	NA	2.0 U	1.0 U	1.0 U
Bromoform	ug/L	1.0 U	NA	1.0 U	1.0 U	NA	2.0 U	1.0 U	1.0 U
Bromomethane	ug/L	1.0 U	NA	1.0 U	1.0 U	NA	2.0 U	1.0 U	1.0 U
Carbon Disulfide	ug/L	50 U	NA	0.14 J	1.0 U	NA	2.0 U	1.0 U	1.0 U
Carbon Tetrachloride	ug/L	1.0 U	NA	1.0 U	1.0 U	NA	2.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	1.0 U	NA	1.0 U	1.0 U	NA	2.0 U	1.0 U	1.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

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Volatile Organics (Cont'd.)									
Chloroethane	ug/L	13	NA	11	15	NA	8.4	1.2	3.3
Chloroform	ug/L	1.0 U	NA	1.0 U	1.0 U	NA	2.0 U	1.0 U	1.0 U
Chloromethane	ug/L	1.0 U	NA	0.46 J	0.88 J	NA	2.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U	NA	0.50 U	0.50 U	NA	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	1.0 U	NA	1.0 U	1.0 U	NA	2.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	NA	NA	NA	NA	NA	2.0 U	NA	NA
Dibromochloromethane	ug/L	1.0 U	NA	1.0 U	1.0 U	NA	2.0 U	1.0 U	1.0 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA	2.0 U	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1.0 U	NA	1.0 U	1.0 U	NA	2.0 U	1.0 U	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA	2.0 U	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA	20 U	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA	2.0 U	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA	10 U	NA	NA
Methylene Chloride	ug/L	1.0 U	NA	1.0 U	1.0 U	NA	2.0 U	1.0 U	1.0 UJ
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1.0 U	NA	1.0 U	1.0 U	NA	2.0 U	1.0 U	1.0 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1.0 U	NA	1.0 U	1.0 U	NA	2.0 U	1.0 U	1.0 U
Toluene	ug/L	1.0 U	NA	1.0 U	1.0 U	NA	2.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U	NA	0.50 U	0.50 U	NA	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 U	NA	1.0 U	1.0 U	NA	2.0 U	1.0 U	1.0 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1.0 U	NA	1.0 U	1.0 U	NA	2.0 U	1.0 U	1.0 U
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA	2.0 U	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	1.0 U	NA	1.0 U	1.0 U	NA	2.0 U	1.0 U	1.0 U
Total 1,3-Dichloropropenes	ug/L	1.0 U	NA	1.0 U	1.0 U	NA	2.0 U	1.0 U	1.0 U
Total Xylenes	ug/L	3.0 U	NA	1.0 U	0.63 J	NA	2.0 U	1.0 U	1.0 U

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Semivolatile Organics									
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	5.0 U	NA	NA	NA	10 U	NA	NA	NA
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	50 U	NA	NA	NA	10 U	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	5.0 U	NA	NA	NA	10 U	NA	NA	NA
2,4-Dichlorophenol	ug/L	5.0 U	NA	NA	NA	10 U	NA	NA	NA
2,4-Dimethylphenol	ug/L	5.0 U	NA	NA	NA	10 U	NA	NA	NA
2,4-Dinitrophenol	ug/L	20 U	NA	NA	NA	25 U	NA	NA	NA
2,4-Dinitrotoluene	ug/L	5.0 U	NA	NA	NA	10 U	NA	NA	NA
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	5.0 U	NA	NA	NA	10 U	NA	NA	NA
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	5.0 U	NA	NA	NA	10 U	NA	NA	NA
2-Chlorophenol	ug/L	5.0 U	NA	NA	NA	10 U	NA	NA	NA
2-Methylnaphthalene	ug/L	5.0 U	NA	NA	NA	10 U	NA	NA	NA
2-Methylphenol	ug/L	5.0 U	NA	NA	NA	10 U	NA	NA	NA
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	20 U	NA	NA	NA	10 U	NA	NA	NA
2-Nitrophenol	ug/L	5.0 U	NA	NA	NA	10 U	NA	NA	NA
2-Picoline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	20 U	NA	NA	NA	10 U	NA	NA	NA
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	20 U	NA	NA	NA	10 U	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	20 U	NA	NA	NA	25 U	NA	NA	NA
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	5.0 U	NA	NA	NA	10 U	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	5.0 U	NA	NA	NA	10 U	NA	NA	NA
4-Chloroaniline	ug/L	20 U	NA	NA	NA	10 U	NA	NA	NA
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	5.0 U	NA	NA	NA	10 U	NA	NA	NA
4-Methylphenol	ug/L	5.0 U	NA	NA	NA	10 U	NA	NA	NA

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Semivolatile Organics (Cont'd.)									
4-Nitroaniline	ug/L	20 U	NA	NA	NA	10 U	NA	NA	NA
4-Nitrophenol	ug/L	20 U	NA	NA	NA	50 U	NA	NA	NA
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	5.0 U	NA	NA	NA	10 U	NA	NA	NA
Acenaphthylene	ug/L	5.0 U	NA	NA	NA	10 U	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	10 U	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	5.0 U	NA	NA	NA	10 U	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	10 U	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	10 U	NA	NA	NA
Benzo(a)anthracene	ug/L	5.0 U	NA	NA	NA	10 U	NA	NA	NA
Benzo(a)pyrene	ug/L	5.0 U	NA	NA	NA	10 U	NA	NA	NA
Benzo(b)fluoranthene	ug/L	5.0 U	NA	NA	NA	10 U	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	5.0 U	NA	NA	NA	10 U	NA	NA	NA
Benzo(k)fluoranthene	ug/L	5.0 U	NA	NA	NA	10 U	NA	NA	NA
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	10 U	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	5.0 U	NA	NA	NA	10 U	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	5.0 U	NA	NA	NA	10 U	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	5.0 U	NA	NA	NA	10 U	NA	NA	NA
Butylbenzylphthalate	ug/L	5.0 U	NA	NA	NA	10 U	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	10 U	NA	NA	NA
Carbazole	ug/L	10 U	NA	NA	NA	10 U	NA	NA	NA
Chrysene	ug/L	5.0 U	NA	NA	NA	10 U	NA	NA	NA
Diallate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	5.0 U	NA	NA	NA	10 U	NA	NA	NA
Dibenzofuran	ug/L	5.0 U	NA	NA	NA	10 U	NA	NA	NA
Diethylphthalate	ug/L	5.0 U	NA	NA	NA	10 U	NA	NA	NA
Dimethylphthalate	ug/L	5.0 U	NA	NA	NA	10 U	NA	NA	NA
Di-n-Butylphthalate	ug/L	5.0 U	NA	NA	NA	10 U	NA	NA	NA
Di-n-Octylphthalate	ug/L	5.0 U	NA	NA	NA	10 U	NA	NA	NA
Diphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	5.0 U	NA	NA	NA	10 U	NA	NA	NA
Fluorene	ug/L	5.0 U	NA	NA	NA	10 U	NA	NA	NA
Hexachlorobenzene	ug/L	5.0 U	NA	NA	NA	10 U	NA	NA	NA
Hexachlorobutadiene	ug/L	5.0 U	NA	NA	NA	10 U	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	5.0 U	NA	NA	NA	10 U	NA	NA	NA
Hexachloroethane	ug/L	5.0 U	NA	NA	NA	10 U	NA	NA	NA
Hexachloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	5.0 U	NA	NA	NA	10 U	NA	NA	NA

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Semivolatile Organics (Cont'd.)									
Isophorone	ug/L	5.0 U	NA	NA	NA	10 U	NA	NA	NA
Isosafrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	5.0 U	NA	NA	NA	10 U	NA	NA	NA
Nitrobenzene	ug/L	5.0 U	NA	NA	NA	10 U	NA	NA	NA
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	5.0 U	NA	NA	NA	10 U	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	5.0 U	NA	NA	NA	10 U	NA	NA	NA
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	25 U	NA	NA	NA	10 U	NA	NA	NA
Phenacetin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	5.0 U	NA	NA	NA	10 U	NA	NA	NA
Phenol	ug/L	5.0 U	NA	NA	NA	10 U	NA	NA	NA
Pronamide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	5.0 U	NA	NA	NA	10 U	NA	NA	NA
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	5.0 U	NA	NA	NA	10 U	NA	NA	NA
PCBs									
Aroclor-1016	ug/L	NA	NA	0.20 U	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	0.20 U	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	0.40 U	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	0.20 U	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	0.097 J	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	0.20 U	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	0.20 U	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	0.097 J	NA	NA	NA	NA	NA
PCBs-Dissolved									
Aroclor-1016 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	NA	NA	NA	NA	NA
Aroclor-1221 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	NA	NA	NA	NA	NA
Aroclor-1232 (Dissolved)	ug/L	0.4 U	0.4 U	0.4 U	NA	NA	NA	NA	NA
Aroclor-1242 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Green Point Landfill X-1B 25 - 28 07/29/95	Green Point Landfill X-1B 25 - 28 06/10/96	Green Point Landfill X-1B 25 - 28 05/24/00	Green Point Landfill X-1B 25 - 28 06/20/01	Green Point Landfill X-1B 25 - 28 11/27/01	Green Point Landfill X-1B 25 - 28 06/25/02	Green Point Landfill X-1B 25 - 28 06/17/03	Green Point Landfill X-1B 25 - 28 05/25/04
PCBs-Dissolved (Cont'd.)									
Aroclor-1248 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	NA	NA	NA	NA	NA
Aroclor-1254 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	NA	NA	NA	NA	NA
Aroclor-1260 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	NA	NA	NA	NA	NA
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	0.4 U	0.4 U	0.4 U	NA	NA	NA	NA	NA
Organochlorine Pesticides									
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	0.2 U	0.2 U	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	0.2 U	0.2 U	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	0.4 U	0.4 U	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	0.2 U	0.2 U	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	0.57	0.21	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	0.2 U	0.2 U	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	0.2 U	0.2 U	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Organophosphate Pesticides									
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Green Point Landfill X-1B 25 - 28 07/29/95	Green Point Landfill X-1B 25 - 28 06/10/96	Green Point Landfill X-1B 25 - 28 05/24/00	Green Point Landfill X-1B 25 - 28 06/20/01	Green Point Landfill X-1B 25 - 28 11/27/01	Green Point Landfill X-1B 25 - 28 06/25/02	Green Point Landfill X-1B 25 - 28 06/17/03	Green Point Landfill X-1B 25 - 28 05/25/04
Organophosphate Pesticides (Cont'd.)									
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides									
2,4,5-T	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans									
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

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Dioxins/Furans (Cont'd.)									
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	Green Point Landfill X-1B 25 - 28 06/21/05	Green Point Landfill X-1B 25 - 28 12/12/06	Green Point Landfill X-1CR 2 - 12 07/29/95	Green Point Landfill X-1CR 2 - 12 06/10/96	Green Point Landfill X-1CR 2 - 12 05/24/00	Green Point Landfill X-1CR2 48.2 - 53.2 07/29/95	Green Point Landfill X-1CR2 48.2 - 53.2 06/11/96	Green Point Landfill X-1CR2 48.2 - 53.2 05/24/00
Volatile Organics									
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	8.3 U	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1.7 U	1.0 U	8.3 U	1.2 U	1.0 U	1.0 U	NA	NA
1,1,2,2-Tetrachloroethane	ug/L	1.7 U	1.0 U	8.3 U	1.2 U	1.0 U	1.0 U	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	1.0 U	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	1.7 U	1.0 U	8.3 U	1.2 U	1.0 U	1.0 U	NA	NA
1,1-Dichloroethane	ug/L	1.7 U	1.0 U	8.3 U	0.51 J	0.22 J	1.0 U	NA	NA
1,1-Dichloroethene	ug/L	1.7 U	1.0 U	8.3 U	1.2 U	1.0 U	1.0 U	NA	NA
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	8.3 U	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	5.0 U	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	1.0 U	R	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	1.0 U	8.3 U	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	1.0 U	8.3 U	1.2 U	NA	1.0 U	5.0 U	NA
1,2-Dichloroethane	ug/L	1.7 U	1.0 U	8.3 U	1.2 U	1.0 U	1.0 U	NA	NA
1,2-Dichloroethene (total)	ug/L	3.3 U	NA	8.3 U	1.2 U	1.0 U	1.0 U	NA	NA
1,2-Dichloropropane	ug/L	1.7 U	1.0 U	8.3 U	1.2 U	1.0 U	1.0 U	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	1.0 U	8.3 U	1.2 U	NA	1.0 U	5.0 U	NA
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	1.0 U	8.3 U	1.2 U	NA	1.0 U	5.0 U	NA
1,4-Dioxane	ug/L	NA	NA	R	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	42 U	25 U	42 UJ	62 U	10 UJ	50 U	NA	NA
2-Chloro-1,3-butadiene	ug/L	NA	NA	8.3 U	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	84 U	50 U	42 U	62 U	10 U	50 U	NA	NA
3-Chloropropene	ug/L	NA	NA	17 U	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	84 U	50 U	42 U	62 U	10 U	50 U	NA	NA
Acetone	ug/L	5.7 J	25 UJ	83 UJ	120 U	10 U	5.0 J	NA	NA
Acetonitrile	ug/L	NA	NA	83 U	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	R	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	83 U	NA	NA	NA	NA	NA
Benzene	ug/L	1.8	1.9	10	9.3	2.7	1.0 U	NA	NA
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1.7 U	1.0 U	8.3 U	1.2 U	1.0 U	1.0 U	NA	NA
Bromoform	ug/L	1.7 U	1.0 U	8.3 U	1.2 U	1.0 U	1.0 U	NA	NA
Bromomethane	ug/L	1.7 U	1.0 U	8.3 U	1.2 U	1.0 U	1.0 U	NA	NA
Carbon Disulfide	ug/L	0.54 J	5.0 U	8.3 U	62 U	0.12 J	50 U	NA	NA
Carbon Tetrachloride	ug/L	1.7 U	1.0 U	8.3 U	1.2 U	1.0 U	1.0 U	NA	NA
Chlorobenzene	ug/L	1.7 U	1.0 U	8.3 U	1.2 U	1.0 U	1.0 U	NA	NA

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ORGANIC COMPOUNDS

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

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Volatile Organics (Cont'd.)									
Chloroethane	ug/L	4.2	3.7	40	43	5.9	1.0 U	NA	NA
Chloroform	ug/L	1.7 U	1.0 U	8.3 U	1.2 U	1.0 U	1.0 U	NA	NA
Chloromethane	ug/L	1.7 U	1.0 U	8.3 U	1.2 U	1.0 UJ	1.0 U	NA	NA
cis-1,2-Dichloroethene	ug/L	1.7 U	1.0 U	8.3 U	1.2 U	0.15 J	1.0 U	NA	NA
cis-1,3-Dichloropropene	ug/L	1.7 U	1.0 U	8.3 U	1.2 U	1.0 U	1.0 U	NA	NA
Cyclohexane	ug/L	NA	1.0 U	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	1.7 U	1.0 U	8.3 U	1.2 U	1.0 U	1.0 U	NA	NA
Dibromomethane	ug/L	NA	NA	8.3 U	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	1.0 U	8.3 U	NA	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	8.3 U	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1.7 U	1.0 U	8.3 U	1.2 U	1.0 U	1.0 U	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	8.3 U	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	R	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	0.73 J	NA	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	8.3 U	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	10 U	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	1.0 U	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	8.3 U	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	0.38 J	NA	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	8.4 U	5.0 U	8.3 U	6.2 U	1.0 U	1.0 U	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	R	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1.7 U	0.57 J	8.3 U	1.2 U	1.0 U	1.0 U	NA	NA
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1.7 U	1.0 U	8.3 U	1.2 U	1.0 U	1.0 U	NA	NA
Toluene	ug/L	1.7 U	1.0 U	8.3 U	1.2 U	1.0 U	1.0 U	NA	NA
trans-1,2-Dichloroethene	ug/L	1.7 U	1.0 U	8.3 U	1.2 U	0.50 U	1.0 U	NA	NA
trans-1,3-Dichloropropene	ug/L	1.7 U	1.0 U	8.3 U	1.2 U	1.0 U	1.0 U	NA	NA
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	R	NA	NA	NA	NA	NA
Trichloroethene	ug/L	2.1	1.0 U	8.3 U	1.2 U	1.0 U	1.0 U	NA	NA
Trichlorofluoromethane	ug/L	NA	1.0 U	8.3 U	NA	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	17 U	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	1.7 U	1.0 U	8.3 U	1.2 U	1.0 U	1.0 U	NA	NA
Total 1,3-Dichloropropenes	ug/L	1.7 U	1.0 U	8.3 U	1.2 U	1.0 U	1.0 U	NA	NA
Total Xylenes	ug/L	3.3 U	0.60 J	21	12	0.78 J	2.2 J	NA	NA

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Green Point Landfill X-1B 25 - 28 06/21/05	Green Point Landfill X-1B 25 - 28 12/12/06	Green Point Landfill X-1CR 2 - 12 07/29/95	Green Point Landfill X-1CR 2 - 12 06/10/96	Green Point Landfill X-1CR 2 - 12 05/24/00	Green Point Landfill X-1CR2 48.2 - 53.2 07/29/95	Green Point Landfill X-1CR2 48.2 - 53.2 06/11/96	Green Point Landfill X-1CR2 48.2 - 53.2 05/24/00
Semivolatile Organics									
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	5.0 U	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	50 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	1.0 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	R	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	1.0 U
1,3-Dinitrobenzene	ug/L	NA	NA	5.0 U	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	1.0 U
1,4-Naphthoquinone	ug/L	NA	NA	50 U	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	NA	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	50 U	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	10 U	50 U	NA	50 U	50 U	5.0 U
2,4,6-Trichlorophenol	ug/L	NA	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
2,4-Dichlorophenol	ug/L	NA	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	10 U
2,4-Dimethylphenol	ug/L	NA	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
2,4-Dinitrophenol	ug/L	NA	NA	20 UJ	20 U	NA	20 UJ	20 U	20 U
2,4-Dinitrotoluene	ug/L	NA	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
2,6-Dichlorophenol	ug/L	NA	NA	5.0 U	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
2-Acetylaminofluorene	ug/L	NA	NA	100 U	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
2-Chlorophenol	ug/L	NA	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
2-Methylnaphthalene	ug/L	NA	NA	3.8 J	1.2 J	NA	5.0 U	5.0 U	5.0 U
2-Methylphenol	ug/L	NA	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
2-Naphthylamine	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	20 U	20 U	NA	20 U	20 U	20 U
2-Nitrophenol	ug/L	NA	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
2-Picoline	ug/L	NA	NA	20 U	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	20 U	20 U	NA	20 U	20 U	20 U
3,3'-Dimethylbenzidine	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	20 U	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	5.0 U	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	20 U	20 U	NA	20 U	20 U	20 U
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	20 U	20 U	NA	20 U	20 U	20 U
4-Aminobiphenyl	ug/L	NA	NA	50 U	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
4-Chloro-3-Methylphenol	ug/L	NA	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
4-Chloroaniline	ug/L	NA	NA	10 U	20 U	NA	20 U	20 U	10 U
4-Chlorobenzilate	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
4-Methylphenol	ug/L	NA	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Green Point Landfill X-1B 25 - 28 06/21/05	Green Point Landfill X-1B 25 - 28 12/12/06	Green Point Landfill X-1CR 2 - 12 07/29/95	Green Point Landfill X-1CR 2 - 12 06/10/96	Green Point Landfill X-1CR 2 - 12 05/24/00	Green Point Landfill X-1CR2 48.2 - 53.2 07/29/95	Green Point Landfill X-1CR2 48.2 - 53.2 06/11/96	Green Point Landfill X-1CR2 48.2 - 53.2 05/24/00
Semivolatile Organics (Cont'd.)									
4-Nitroaniline	ug/L	NA	NA	20 U	20 U	NA	20 UJ	20 U	20 U
4-Nitrophenol	ug/L	NA	NA	20 U	20 U	NA	20 U	20 U	20 U
4-Nitroquinoline-1-oxide	ug/L	NA	NA	R	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	100 U	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	20 U	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	20 U	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	50 UJ	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
Acenaphthylene	ug/L	NA	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
Acetophenone	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
Benzo(a)pyrene	ug/L	NA	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
Benzo(b)fluoranthene	ug/L	NA	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
Benzo(g,h,i)perylene	ug/L	NA	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
Benzo(k)fluoranthene	ug/L	NA	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
Benzyl Alcohol	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
bis(2-Chloroethyl)ether	ug/L	NA	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	5.0 U	5.0 U	NA	5.0 U	7.0 J	5.0 U
Butylbenzylphthalate	ug/L	NA	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	10 U	NA	10 U	10 U	10 U
Chrysene	ug/L	NA	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
Diallate	ug/L	NA	NA	5.0 U	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
Dibenzofuran	ug/L	NA	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
Diethylphthalate	ug/L	NA	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
Dimethylphthalate	ug/L	NA	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
Di-n-Butylphthalate	ug/L	NA	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
Di-n-Octylphthalate	ug/L	NA	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
Diphenylamine	ug/L	NA	NA	5.0 U	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
Fluorene	ug/L	NA	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
Hexachlorobenzene	ug/L	NA	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
Hexachlorobutadiene	ug/L	NA	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
Hexachlorocyclopentadiene	ug/L	NA	NA	5.0 U	5.0 U	NA	5.0 UJ	5.0 U	5.0 U
Hexachloroethane	ug/L	NA	NA	5.0 U	2.0 U	NA	5.0 U	2.0 U	5.0 U
Hexachloropropene	ug/L	NA	NA	100 U	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U

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Semivolatile Organics (Cont'd.)									
Isophorone	ug/L	NA	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
Isosafrole	ug/L	NA	NA	20 U	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	50 UJ	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
Nitrobenzene	ug/L	NA	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
N-Nitrosodiethylamine	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	5.0 U	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
N-Nitrosodiphenylamine	ug/L	NA	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
N-Nitrosomethylethylamine	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	20 U	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	20 U	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	5.0 U	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	50 U	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	25 U	25 U	NA	25 U	25 U	1.0 U
Phenacetin	ug/L	NA	NA	20 U	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	1.9 J	5.0 U	NA	5.0 U	5.0 U	5.0 U
Phenol	ug/L	NA	NA	5.0 U	5.0 U	NA	100 D	5.0 U	5.0 U
Pronamide	ug/L	NA	NA	20 U	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
Pyridine	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	20 U	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	NA	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U
PCBs									
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
PCBs-Dissolved									
Aroclor-1016 (Dissolved)	ug/L	NA	NA	0.2 U	0.2 U	NA	0.2 U	0.2 U	NA
Aroclor-1221 (Dissolved)	ug/L	NA	NA	0.2 U	0.2 U	NA	0.2 U	0.2 U	NA
Aroclor-1232 (Dissolved)	ug/L	NA	NA	0.4 U	0.4 U	NA	0.4 U	0.4 U	NA
Aroclor-1242 (Dissolved)	ug/L	NA	NA	0.2 U	0.2 U	NA	0.2 U	0.2 U	NA

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PCBs-Dissolved (Cont'd.)									
Aroclor-1248 (Dissolved)	ug/L	NA	NA	0.2 U	0.2 U	NA	0.2 U	0.2 U	NA
Aroclor-1254 (Dissolved)	ug/L	NA	NA	0.2 U	0.2 U	NA	0.2 U	0.2 U	NA
Aroclor-1260 (Dissolved)	ug/L	NA	NA	0.2 U	0.2 U	NA	0.2 U	0.2 U	NA
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	0.4 U	0.4 U	NA	0.4 U	0.4 U	NA
Organochlorine Pesticides									
4,4'-DDD	ug/L	NA	NA	0.02 U	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	0.02 U	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	0.02 U	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	0.01 U	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	0.01 U	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	0.02 U	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	NA	NA	0.2 U	0.2 UJ	NA	0.2 U	0.2 U	NA
Aroclor-1221	ug/L	NA	NA	0.2 U	0.2 U	NA	0.2 U	0.2 U	NA
Aroclor-1232	ug/L	NA	NA	0.4 U	0.4 U	NA	0.4 U	0.4 U	NA
Aroclor-1242	ug/L	NA	NA	0.2 U	0.2 U	NA	0.2 U	0.2 U	NA
Aroclor-1248	ug/L	NA	NA	0.31 JN	0.4	NA	0.2 U	0.2 U	NA
Aroclor-1254	ug/L	NA	NA	0.2 U	0.2 U	NA	0.2 U	0.2 U	NA
Aroclor-1260	ug/L	NA	NA	0.2 U	0.2 U	NA	0.2 U	0.2 U	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	0.01 U	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	0.01 U	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	0.02 U	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	0.01 U	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	0.02 U	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	0.02 U	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	0.02 U	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	0.02 U	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	0.01 U	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	0.02 U	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	0.01 U	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	0.01 U	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	0.1 U	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	0.1 U	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA
Organophosphate Pesticides									
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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Organophosphate Pesticides (Cont'd.)									
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides									
2,4,5-T	ug/L	NA	NA	1 UJ	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	1 UJ	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	4 UJ	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	0.6 UJ	NA	NA	NA	NA	NA
Dioxins/Furans									
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Green Point Landfill X-1B 25 - 28 06/21/05	Green Point Landfill X-1B 25 - 28 12/12/06	Green Point Landfill X-1CR 2 - 12 07/29/95	Green Point Landfill X-1CR 2 - 12 06/10/96	Green Point Landfill X-1CR 2 - 12 05/24/00	Green Point Landfill X-1CR2 48.2 - 53.2 07/29/95	Green Point Landfill X-1CR2 48.2 - 53.2 06/11/96	Green Point Landfill X-1CR2 48.2 - 53.2 05/24/00
Dioxins/Furans (Cont'd.)									
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	0.0000022 U	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	0.0000035 U	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	0.0000049 U	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	0.000005 U	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	0.0000092 U	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	0.0000027 U	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	0.0000022 U	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	Green Point Landfill X-1CR2 48.2 - 53.2 11/26/01	Green Point Landfill X-1CR2 48.2 - 53.2 06/26/02	Green Point Landfill X-1CR2 48.2 - 53.2 06/19/03	Green Point Landfill X-1CR2 48.2 - 53.2 05/27/04	Green Point Landfill X-1CR2 48.2 - 53.2 06/21/05	Green Point Landfill X-1CR2 48.2 - 53.2 12/12/06	Green Point Landfill X-3AR 7.6 - 17.6 06/20/95	Green Point Landfill X-3AR 7.6 - 17.6 07/31/95
Volatile Organics									
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	2.5 U
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	NA	NA
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	2.5 U
1,2,4-Trichlorobenzene	ug/L	1.0 U	1.0 U	NA	NA	NA	5.0 U	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	2.0 U	2.0 U	NA	NA	NA	1.0 U	NA	R
1,2-Dibromoethane	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	NA	2.5 U
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	1.0 U	2.5 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U
1,2-Dichloroethene (total)	ug/L	NA	NA	NA	NA	2.0 U	NA	1.0 U	2.5 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	0.15 J	1.0 U	NA	NA	NA	1.0 U	1.0 U	2.5 U
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	1.0 U	2.5 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	640 J
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	10 UJ	10 U	2.0 U	2.0 UJ	25 U	25 U	50 U	12 UJ
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	2.5 U
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	10 UJ	10 U	2.0 U	2.0 U	50 U	50 U	R	12 U
3-Chloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	10 U	10 U	2.0 U	2.0 U	50 U	50 U	50 U	12 U
Acetone	ug/L	10 UJ	10 UJ	2.0 U	2.0 UJ	25 U	25 UJ	9.3 J	25 UJ
Acetonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	25 U
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	R
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	25 U
Benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.3	2.5 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.24 J	1.0 U	2.5 U
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	7.8	1.0 U	2.5 U
Bromomethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U
Carbon Disulfide	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	50 U	2.5 U
Carbon Tetrachloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	Green Point Landfill X-1CR2 48.2 - 53.2 11/26/01	Green Point Landfill X-1CR2 48.2 - 53.2 06/26/02	Green Point Landfill X-1CR2 48.2 - 53.2 06/19/03	Green Point Landfill X-1CR2 48.2 - 53.2 05/27/04	Green Point Landfill X-1CR2 48.2 - 53.2 06/21/05	Green Point Landfill X-1CR2 48.2 - 53.2 12/12/06	Green Point Landfill X-3AR 7.6 - 17.6 06/20/95	Green Point Landfill X-3AR 7.6 - 17.6 07/31/95
Volatile Organics (Cont'd.)									
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.60 J	2.5 U
Chloroform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.30 J	1.0 U	2.5 U
Chloromethane	ug/L	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U
cis-1,2-Dichloroethene	ug/L	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U
Cyclohexane	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	NA	NA
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0	1.0 U	2.5 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	2.5 U
Dichlorodifluoromethane	ug/L	1.0 UJ	1.0 U	NA	NA	NA	1.0 U	NA	2.5 U
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	2.5 U
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.40 J	2.5 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	2.5 U
Isobutanol	ug/L	NA	NA	NA	NA	NA	NA	NA	R
Isopropylbenzene	ug/L	1.0 U	1.0 U	NA	NA	NA	5.0 U	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	2.5 U
Methyl acetate	ug/L	10 U	10 U	NA	NA	NA	10 U	NA	NA
Methyl cyclohexane	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	2.5 U
Methyl tert-butyl ether	ug/L	5.0 U	5.0 U	NA	NA	NA	5.0 U	NA	NA
Methylene Chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 UJ	5.0 U	5.0 U	0.40 J	2.5 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	R
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U
Toluene	ug/L	1.0 U	1.0 U	0.44 J	1.0 U	1.0 U	1.0 U	0.40 J	2.5 U
trans-1,2-Dichloroethene	ug/L	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	R
Trichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 UJ	3.2	1.0 U	1.0 U	2.5 U
Trichlorofluoromethane	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	NA	2.5 U
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
Vinyl Chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U
Total 1,3-Dichloropropenes	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U
Total Xylenes	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.1 J	2.5 U

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SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Green Point Landfill X-1CR2 48.2 - 53.2 11/26/01	Green Point Landfill X-1CR2 48.2 - 53.2 06/26/02	Green Point Landfill X-1CR2 48.2 - 53.2 06/19/03	Green Point Landfill X-1CR2 48.2 - 53.2 05/27/04	Green Point Landfill X-1CR2 48.2 - 53.2 06/21/05	Green Point Landfill X-1CR2 48.2 - 53.2 12/12/06	Green Point Landfill X-3AR 7.6 - 17.6 06/20/95	Green Point Landfill X-3AR 7.6 - 17.6 07/31/95
Semivolatile Organics									
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	10 U	50 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	R
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA	NA	NA	50 U
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	10 U
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	10 U	NA	NA	NA	NA	NA	10 UJ	5.0 U
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	50 U
2,4,5-Trichlorophenol	ug/L	10 U	NA	NA	NA	NA	NA	100 U	10 U
2,4,6-Trichlorophenol	ug/L	10 U	NA	NA	NA	NA	NA	10 U	5.0 U
2,4-Dichlorophenol	ug/L	10 U	NA	NA	NA	NA	NA	10 U	5.0 U
2,4-Dimethylphenol	ug/L	10 U	NA	NA	NA	NA	NA	10 U	5.0 U
2,4-Dinitrophenol	ug/L	25 U	NA	NA	NA	NA	NA	40 U	20 U
2,4-Dinitrotoluene	ug/L	10 U	NA	NA	NA	NA	NA	10 U	5.0 U
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
2,6-Dinitrotoluene	ug/L	10 U	NA	NA	NA	NA	NA	10 U	5.0 U
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	100 U
2-Chloronaphthalene	ug/L	10 U	NA	NA	NA	NA	NA	10 U	5.0 U
2-Chlorophenol	ug/L	10 U	NA	NA	NA	NA	NA	10 U	5.0 U
2-Methylnaphthalene	ug/L	10 U	NA	NA	NA	NA	NA	10 U	5.0 U
2-Methylphenol	ug/L	10 U	NA	NA	NA	NA	NA	10 U	5.0 U
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	10 U
2-Nitroaniline	ug/L	10 U	NA	NA	NA	NA	NA	40 U	20 U
2-Nitrophenol	ug/L	10 U	NA	NA	NA	NA	NA	10 U	5.0 U
2-Picoline	ug/L	NA	NA	NA	NA	NA	NA	NA	20 U
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	10 U	NA	NA	NA	NA	NA	40 U	20 U
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	10 U
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	20 U
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
3-Nitroaniline	ug/L	10 U	NA	NA	NA	NA	NA	40 U	20 U
4,6-Dinitro-2-methylphenol	ug/L	25 U	NA	NA	NA	NA	NA	40 UJ	20 U
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	50 U
4-Bromophenyl-phenylether	ug/L	10 U	NA	NA	NA	NA	NA	10 U	5.0 U
4-Chloro-3-Methylphenol	ug/L	10 U	NA	NA	NA	NA	NA	10 U	5.0 U
4-Chloroaniline	ug/L	10 U	NA	NA	NA	NA	NA	40 U	10 U
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA	NA	NA	10 U
4-Chlorophenyl-phenylether	ug/L	10 U	NA	NA	NA	NA	NA	10 U	5.0 U
4-Methylphenol	ug/L	10 U	NA	NA	NA	NA	NA	10 U	5.0 U

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	Green Point Landfill X-1CR2 48.2 - 53.2 11/26/01	Green Point Landfill X-1CR2 48.2 - 53.2 06/26/02	Green Point Landfill X-1CR2 48.2 - 53.2 06/19/03	Green Point Landfill X-1CR2 48.2 - 53.2 05/27/04	Green Point Landfill X-1CR2 48.2 - 53.2 06/21/05	Green Point Landfill X-1CR2 48.2 - 53.2 12/12/06	Green Point Landfill X-3AR 7.6 - 17.6 06/20/95	Green Point Landfill X-3AR 7.6 - 17.6 07/31/95
Semivolatile Organics (Cont'd.)									
4-Nitroaniline	ug/L	10 U	NA	NA	NA	NA	NA	40 U	20 UJ
4-Nitrophenol	ug/L	10 U	NA	NA	NA	NA	NA	40 U	20 U
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA	NA	NA	100 U
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA	NA	NA	100 U
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	20 U
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	20 U
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	50 UJ
Acenaphthene	ug/L	10 U	NA	NA	NA	NA	NA	10 U	5.0 U
Acenaphthylene	ug/L	10 U	NA	NA	NA	NA	NA	10 U	5.0 U
Acetophenone	ug/L	10 U	NA	NA	NA	NA	NA	NA	10 U
Aniline	ug/L	NA	NA	NA	NA	NA	NA	NA	10 U
Anthracene	ug/L	10 U	NA	NA	NA	NA	NA	10 U	5.0 U
Atrazine	ug/L	10 U	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	10 U	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	10 U	NA	NA	NA	NA	NA	10 U	5.0 U
Benzo(a)pyrene	ug/L	10 U	NA	NA	NA	NA	NA	10 U	5.0 U
Benzo(b)fluoranthene	ug/L	10 U	NA	NA	NA	NA	NA	10 U	5.0 U
Benzo(g,h,i)perylene	ug/L	10 U	NA	NA	NA	NA	NA	10 U	5.0 U
Benzo(k)fluoranthene	ug/L	10 U	NA	NA	NA	NA	NA	10 U	5.0 U
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA	10 U
Biphenyl	ug/L	10 U	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	10 U	NA	NA	NA	NA	NA	10 U	5.0 U
bis(2-Chloroethyl)ether	ug/L	10 U	NA	NA	NA	NA	NA	10 U	5.0 U
bis(2-Ethylhexyl)phthalate	ug/L	4.5 J	NA	NA	NA	NA	NA	10 U	5.0 U
Butylbenzylphthalate	ug/L	10 U	NA	NA	NA	NA	NA	10 U	5.0 U
Caprolactam	ug/L	10 U	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	10 U	NA	NA	NA	NA	NA	10 U	NA
Chrysene	ug/L	10 U	NA	NA	NA	NA	NA	10 U	5.0 U
Diallate	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
Dibenzo(a,h)anthracene	ug/L	10 U	NA	NA	NA	NA	NA	10 U	5.0 U
Dibenzofuran	ug/L	10 U	NA	NA	NA	NA	NA	10 U	5.0 U
Diethylphthalate	ug/L	10 U	NA	NA	NA	NA	NA	10 U	5.0 U
Dimethylphthalate	ug/L	10 U	NA	NA	NA	NA	NA	10 U	5.0 U
Di-n-Butylphthalate	ug/L	10 U	NA	NA	NA	NA	NA	10 U	5.0 U
Di-n-Octylphthalate	ug/L	10 U	NA	NA	NA	NA	NA	10 U	5.0 U
Diphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	10 U
Fluoranthene	ug/L	10 U	NA	NA	NA	NA	NA	10 U	5.0 U
Fluorene	ug/L	10 U	NA	NA	NA	NA	NA	10 U	5.0 U
Hexachlorobenzene	ug/L	10 U	NA	NA	NA	NA	NA	10 UJ	5.0 U
Hexachlorobutadiene	ug/L	10 U	NA	NA	NA	NA	NA	10 U	5.0 U
Hexachlorocyclopentadiene	ug/L	10 U	NA	NA	NA	NA	NA	10 U	5.0 U
Hexachloroethane	ug/L	10 U	NA	NA	NA	NA	NA	10 U	5.0 U
Hexachloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	100 U
Indeno(1,2,3-cd)pyrene	ug/L	10 U	NA	NA	NA	NA	NA	10 U	5.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Green Point Landfill X-1CR2 48.2 - 53.2 11/26/01	Green Point Landfill X-1CR2 48.2 - 53.2 06/26/02	Green Point Landfill X-1CR2 48.2 - 53.2 06/19/03	Green Point Landfill X-1CR2 48.2 - 53.2 05/27/04	Green Point Landfill X-1CR2 48.2 - 53.2 06/21/05	Green Point Landfill X-1CR2 48.2 - 53.2 12/12/06	Green Point Landfill X-3AR 7.6 - 17.6 06/20/95	Green Point Landfill X-3AR 7.6 - 17.6 07/31/95
Semivolatile Organics (Cont'd.)									
Isophorone	ug/L	10 U	NA	NA	NA	NA	NA	10 U	5.0 U
Isosafrole	ug/L	NA	NA	NA	NA	NA	NA	NA	20 U
Methapyrilene	ug/L	NA	NA	NA	NA	NA	NA	NA	50 U
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	10 U
Naphthalene	ug/L	10 U	NA	NA	NA	NA	NA	10 U	5.0 U
Nitrobenzene	ug/L	10 U	NA	NA	NA	NA	NA	10 U	5.0 U
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	10 U
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	10 U
N-Nitroso-di-n-propylamine	ug/L	10 U	NA	NA	NA	NA	NA	10 U	5.0 U
N-Nitrosodiphenylamine	ug/L	10 U	NA	NA	NA	NA	NA	10 U	5.0 U
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	10 U
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA	NA	NA	10 U
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA	NA	NA	10 U
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA	NA	NA	10 U
o-Toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	20 U
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	20 U
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
Pentachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	10 U
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	50 U
Pentachlorophenol	ug/L	10 U	NA	NA	NA	NA	NA	40 U	25 U
Phenacetin	ug/L	NA	NA	NA	NA	NA	NA	NA	20 U
Phenanthrene	ug/L	10 U	NA	NA	NA	NA	NA	10 U	5.0 U
Phenol	ug/L	10 U	NA	NA	NA	NA	NA	10 U	5.0 U
Pronamide	ug/L	NA	NA	NA	NA	NA	NA	NA	20 U
Pyrene	ug/L	10 U	NA	NA	NA	NA	NA	10 U	5.0 U
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	10 U
Safrole	ug/L	NA	NA	NA	NA	NA	NA	NA	20 U
Total Methylphenols	ug/L	10 U	NA	NA	NA	NA	NA	10 U	5.0 U
PCBs									
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
PCBs-Dissolved									
Aroclor-1016 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U
Aroclor-1221 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U
Aroclor-1232 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	0.4 U	0.4 U
Aroclor-1242 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U

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SAGINAW, MICHIGAN

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PCBs-Dissolved (Cont'd.)									
Aroclor-1248 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U
Aroclor-1254 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U
Aroclor-1260 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	0.4 U	0.4 U
Organochlorine Pesticides									
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	0.02 U
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	0.02 U
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	0.02 UJ
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	0.01 U
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	0.01 U
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	0.02 U
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	0.4 U	0.4 U
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	0.01 U
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	0.01 U
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	0.02 U
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	0.01 U
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	0.02 U
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	0.02 U
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	0.02 UJ
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	0.02 U
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	0.01 U
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	0.02 U
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	0.01 UJ
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	0.01 U
Isodrin	ug/L	NA	NA	NA	NA	NA	NA	NA	0.1 UJ
Kepone	ug/L	NA	NA	NA	NA	NA	NA	NA	1 UJ
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	0.1 UJ
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U
Organophosphate Pesticides									
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

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Organophosphate Pesticides (Cont'd.)									
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U
Famphur	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U
Phorate	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U
Sulfotep	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U
Thionazin	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides									
2,4,5-T	ug/L	NA	NA	NA	NA	NA	NA	NA	1 UJ
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA	1 UJ
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA	4 UJ
Dinoseb	ug/L	NA	NA	NA	NA	NA	NA	NA	0.6 UJ
Dioxins/Furans									
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

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Dioxins/Furans (Cont'd.)									
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	0.0000043 U
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	0.0000069 U
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	0.0000094 U
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	0.0000088 U
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	0.000015 U
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	0.000006 U
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	0.0000043 U
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

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Volatile Organics									
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	1.0 U
1,1,1-Trichloroethane	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	1.0 U	1.0 U	1.0 U	NA	NA
1,1,2-Trichloroethane	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	1.0 U
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	5.0 U	5.0 U	5.0 U	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	1.0 U	1.0 U	1.0 U	NA	R
1,2-Dibromoethane	ug/L	NA	NA	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U
1,2-Dichlorobenzene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethene (total)	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	NA	NA	NA	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	660 [670]	NA	NA	NA	NA	NA	NA	R
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	50 U [50 U]	50 U	50 U	25 U	25 U	25 U	50 U	5.0 UJ
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	1.0 U
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	50 U [50 U]	R	R	50 U	50 U	50 U	R	5.0 U
3-Chloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	2.0 U
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	3.9 J [50 U]	50 U	50 U	50 U	50 U	50 U	50 U	5.0 U
Acetone	ug/L	100 U [45 J]	50 U	R	25 UJ	25 U	25 U	R	10 UJ
Acetonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	10 U
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	R
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	10 U
Benzene	ug/L	1.2 J [1.2 J]	1.0 U	0.90 J	1.0 U	1.0 U	1.0 U	12	13
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1.0 U [1.0 U]	4.1	2.4	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U
Bromomethane	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Disulfide	ug/L	50 U [50 U]	0.90 J	0.60 J	5.0 U	5.0 U	0.45 J	50 U	1.0 U
Carbon Tetrachloride	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

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SAGINAW, MICHIGAN

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Volatile Organics (Cont'd.)									
Chloroethane	ug/L	1.1 [1.1]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	ug/L	1.0 U [1.0 U]	8.8	11	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	NA	NA	NA	1.0 U	1.0 U	1.0 U	NA	NA
Dibromochloromethane	ug/L	1.0 U [1.0 U]	1.3	0.50 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	1.0 U
Dichlorodifluoromethane	ug/L	NA	NA	NA	1.0 UJ	1.0 U	1.0 U	NA	1.0 U
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	1.0 U
Ethylbenzene	ug/L	0.41 J [0.40 J]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	1.0 U
Isobutanol	ug/L	NA	NA	NA	NA	NA	NA	NA	R
Isopropylbenzene	ug/L	NA	NA	NA	5.0 U	5.0 U	5.0 U	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	1.0 U
Methyl acetate	ug/L	NA	NA	NA	10 U	10 U	10 U	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	1.0 U	1.0 U	1.0 U	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	1.0 U
Methyl tert-butyl ether	ug/L	NA	NA	NA	5.0 U	5.0 U	5.0 U	NA	NA
Methylene Chloride	ug/L	5.0 U [5.0 U]	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	R
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.2 U
trans-1,2-Dichloroethene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	1.0 U
Trichloroethene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	ug/L	NA	NA	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	2.0 U
Vinyl Chloride	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total 1,3-Dichloropropenes	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total Xylenes	ug/L	3.0 U [3.0 U]	3.0 U	3.0 U	2.0 U	2.0 U	2.0 U	2.9	4.4 U

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Semivolatile Organics									
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
1,2,4-Trichlorobenzene	ug/L	NA	5.0 U	5.0 U	NA	NA	NA	5.0 U	5.0 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	R
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA	NA	NA	50 U
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	10 U
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	50 U
2,4,5-Trichlorophenol	ug/L	NA	50 U	50 U	NA	5.0 U	5.0 U	50 U	10 U
2,4,6-Trichlorophenol	ug/L	NA	5.0 U	5.0 U	NA	4.0 U	4.0 U	5.0 U	5.0 U
2,4-Dichlorophenol	ug/L	NA	5.0 U	5.0 U	NA	10 U	10 U	5.0 U	5.0 U
2,4-Dimethylphenol	ug/L	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dinitrophenol	ug/L	NA	20 U	20 U	NA	20 U	20 U	20 U	20 U
2,4-Dinitrotoluene	ug/L	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
2,6-Dinitrotoluene	ug/L	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	100 U
2-Chloronaphthalene	ug/L	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
2-Chlorophenol	ug/L	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
2-Methylnaphthalene	ug/L	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
2-Methylphenol	ug/L	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	10 U
2-Nitroaniline	ug/L	NA	20 U	20 U	NA	20 U	20 U	20 U	20 U
2-Nitrophenol	ug/L	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
2-Picoline	ug/L	NA	NA	NA	NA	NA	NA	NA	20 U
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	20 U	20 U	NA	4.0 U	4.0 U	20 U	20 U
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	10 U
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	20 U
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
3-Nitroaniline	ug/L	NA	20 U	20 U	NA	20 U	20 U	20 U	20 U
4,6-Dinitro-2-methylphenol	ug/L	NA	20 U	20 U	NA	20 U	20 U	20 U	20 U
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	50 U
4-Bromophenyl-phenylether	ug/L	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloro-3-Methylphenol	ug/L	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloroaniline	ug/L	NA	20 U	20 U	NA	10 U	10 U	20 U	10 U
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA	NA	NA	10 U
4-Chlorophenyl-phenylether	ug/L	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
4-Methylphenol	ug/L	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U

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Semivolatile Organics (Cont'd.)									
4-Nitroaniline	ug/L	NA	20 U	20 U	NA	20 U	20 U	20 U	20 U
4-Nitrophenol	ug/L	NA	20 U	20 U	NA	20 U	20 U	20 U	20 U
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA	NA	NA	100 U
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA	NA	NA	100 UJ
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	20 U
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	20 U
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	50 UJ
Acenaphthene	ug/L	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
Acenaphthylene	ug/L	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
Acetophenone	ug/L	NA	NA	NA	NA	5.0 U	5.0 U	NA	10 U
Aniline	ug/L	NA	NA	NA	NA	NA	NA	NA	10 UJ
Anthracene	ug/L	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
Atrazine	ug/L	NA	NA	NA	NA	3.0 U	3.0 U	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	10 U	10 U	NA	NA
Benzo(a)anthracene	ug/L	NA	5.0 U	5.0 U	NA	1.0 U	1.0 U	5.0 U	5.0 U
Benzo(a)pyrene	ug/L	NA	5.0 U	5.0 U	NA	1.0 U	1.0 U	5.0 U	5.0 U
Benzo(b)fluoranthene	ug/L	NA	5.0 U	5.0 U	NA	1.0 U	1.0 U	5.0 U	5.0 U
Benzo(g,h,i)perylene	ug/L	NA	5.0 U	5.0 U	NA	1.0 U	1.0 U	5.0 U	5.0 U
Benzo(k)fluoranthene	ug/L	NA	5.0 U	5.0 U	NA	1.0 U	1.0 U	5.0 U	5.0 U
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA	10 U
Biphenyl	ug/L	NA	NA	NA	NA	10 U	10 U	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Chloroethyl)ether	ug/L	NA	5.0 U	5.0 U	NA	1.0 U	1.0 U	5.0 U	5.0 U
bis(2-Ethylhexyl)phthalate	ug/L	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
Butylbenzylphthalate	ug/L	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
Caprolactam	ug/L	NA	NA	NA	NA	10 U	10 UJ	NA	NA
Carbazole	ug/L	NA	5.0 U	5.0 U	NA	10 U	10 U	5.0 U	NA
Chrysene	ug/L	NA	5.0 U	5.0 U	NA	1.0 U	1.0 U	5.0 U	5.0 U
Diallate	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
Dibenzo(a,h)anthracene	ug/L	NA	5.0 U	5.0 U	NA	2.0 U	2.0 U	5.0 U	5.0 U
Dibenzofuran	ug/L	NA	5.0 U	5.0 U	NA	4.0 U	4.0 U	5.0 U	5.0 U
Diethylphthalate	ug/L	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
Dimethylphthalate	ug/L	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
Di-n-Butylphthalate	ug/L	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
Di-n-Octylphthalate	ug/L	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
Diphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	10 U
Fluoranthene	ug/L	NA	5.0 U	5.0 U	NA	1.0 U	1.0 U	5.0 U	5.0 U
Fluorene	ug/L	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobenzene	ug/L	NA	5.0 U	5.0 U	NA	0.20 U	0.20 U	5.0 U	5.0 U
Hexachlorobutadiene	ug/L	NA	5.0 U	5.0 U	NA	1.0 U	1.0 U	5.0 U	5.0 U
Hexachlorocyclopentadiene	ug/L	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
Hexachloroethane	ug/L	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
Hexachloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	100 U
Indeno(1,2,3-cd)pyrene	ug/L	NA	5.0 U	5.0 U	NA	2.0 U	2.0 U	5.0 U	5.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

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Semivolatile Organics (Cont'd.)									
Isophorone	ug/L	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
Isosafrole	ug/L	NA	NA	NA	NA	NA	NA	NA	20 U
Methapyrilene	ug/L	NA	NA	NA	NA	NA	NA	NA	50 U
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	10 U
Naphthalene	ug/L	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
Nitrobenzene	ug/L	NA	5.0 U	5.0 U	NA	3.0 U	3.0 U	5.0 U	5.0 U
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	10 U
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	10 U
N-Nitroso-di-n-propylamine	ug/L	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosodiphenylamine	ug/L	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	10 U
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA	NA	NA	10 U
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA	NA	NA	10 U
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA	NA	NA	10 U
o-Toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	20 U
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	20 U
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
Pentachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	10 U
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	50 U
Pentachlorophenol	ug/L	NA	20 UJ	20 UJ	NA	5.0 U	5.0 U	20 U	3.2 J
Phenacetin	ug/L	NA	NA	NA	NA	NA	NA	NA	20 U
Phenanthrene	ug/L	NA	5.0 U	5.0 U	NA	2.0 U	2.0 U	5.0 U	5.0 U
Phenol	ug/L	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	0.89 J
Pronamide	ug/L	NA	NA	NA	NA	NA	NA	NA	20 U
Pyrene	ug/L	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	10 U
Safrole	ug/L	NA	NA	NA	NA	NA	NA	NA	20 U
Total Methylphenols	ug/L	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
PCBs									
Aroclor-1016	ug/L	NA	NA	NA	NA	0.20 U	0.20 U	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	0.20 U	0.20 U	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	0.20 U	0.20 U	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	0.20 U	0.20 U	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	0.20 U	0.20 U	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	0.20 U	0.20 U	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	0.20 U	0.20 U	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	0.20 U	0.20 U	NA	NA
PCBs-Dissolved									
Aroclor-1016 (Dissolved)	ug/L	NA	0.2 U	0.2 U	NA	NA	NA	0.2 U	0.2 U
Aroclor-1221 (Dissolved)	ug/L	NA	0.2 U	0.2 U	NA	NA	NA	0.2 U	0.2 U
Aroclor-1232 (Dissolved)	ug/L	NA	0.4 U	0.4 U	NA	NA	NA	0.4 U	0.4 U
Aroclor-1242 (Dissolved)	ug/L	NA	0.2 U	0.2 U	NA	NA	NA	0.2 U	0.2 U

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GENERAL MOTORS CORPORATION
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SAGINAW, MICHIGAN

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PCBs-Dissolved (Cont'd.)									
Aroclor-1248 (Dissolved)	ug/L	NA	0.2 U	0.2 U	NA	NA	NA	0.2 U	0.2 U
Aroclor-1254 (Dissolved)	ug/L	NA	0.2 U	0.2 U	NA	NA	NA	0.2 U	0.2 U
Aroclor-1260 (Dissolved)	ug/L	NA	0.2 U	0.2 U	NA	NA	NA	0.2 U	0.2 U
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	0.4 U	0.4 U	NA	NA	NA	0.4 U	0.4 U
Organochlorine Pesticides									
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	0.02 UJ
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	0.02 UJ
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	0.02 UJ
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	0.01 U
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	0.01 U
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	0.02 U
Aroclor-1016	ug/L	NA	0.2 U	0.2 U	NA	NA	NA	0.2 U	0.2 U
Aroclor-1221	ug/L	NA	0.2 U	0.2 U	NA	NA	NA	0.2 U	0.2 U
Aroclor-1232	ug/L	NA	0.4 U	0.4 U	NA	NA	NA	0.4 U	0.4 U
Aroclor-1242	ug/L	NA	0.2 U	0.2 U	NA	NA	NA	0.2 U	0.2 U
Aroclor-1248	ug/L	NA	0.2 U	0.2 U	NA	NA	NA	0.2 U	0.2 U
Aroclor-1254	ug/L	NA	0.2 U	0.2 U	NA	NA	NA	0.2 U	0.2 U
Aroclor-1260	ug/L	NA	0.2 U	0.2 U	NA	NA	NA	0.2 U	0.2 U
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	0.01 U
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	0.01 U
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	0.02 U
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	0.01 U
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	0.02 U
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	0.02 U
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	0.02 U
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	0.02 UJ
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	0.01 U
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	0.02 UJ
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	0.01 U
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	0.01 U
Isodrin	ug/L	NA	NA	NA	NA	NA	NA	NA	0.1 U
Kepone	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	0.1 UJ
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	1 UJ
Organophosphate Pesticides									
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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Organophosphate Pesticides (Cont'd.)									
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U
Famphur	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U
Phorate	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U
Sulfotep	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U
Thionazin	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides									
2,4,5-T	ug/L	NA	NA	NA	NA	NA	NA	NA	1 UJ
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA	1 UJ
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA	4 UJ
Dinoseb	ug/L	NA	NA	NA	NA	NA	NA	NA	1 UJ*
Dioxins/Furans									
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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Dioxins/Furans (Cont'd.)									
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	0.00000074 U
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	0.00000091 U
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	0.0000016 U
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	0.0000014 U
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	0.00000065 U
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	0.00000055 U
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	0.0000015 U
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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Volatile Organics									
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	1.0 U	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	10 U	33 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	10 U	33 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	10 U	33 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	10 U	33 U
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	10 U	33 U
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	1.0 U	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	R	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	1.0 U	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	10 UJ	33 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	10 U	33 U
1,2-Dichloroethene (total)	ug/L	0.56 J	1.0 U	13	11	1.0 U	NA	10 U	33 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	10 U	33 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	10 UJ	33 U
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	10 UJ	33 U
1,4-Dioxane	ug/L	NA	NA	650 J	440	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	50 U	50 U	5.0 UJ	50 U	50 U	NA	500 U	1,700 U
2-Chloro-1,3-butadiene	ug/L	NA	NA	1.0 U	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	50 U	R	5.0 U	50 U	R	NA	R	R
3-Chloropropene	ug/L	NA	NA	2.0 U	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U	50 U	5.0 U	50 U	50 U	NA	500 UJ	1,700 U
Acetone	ug/L	43 J	R	2.4 J	17 J	R	NA	370 U	R
Acetonitrile	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	R	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
Benzene	ug/L	13	7.0	8.3	7.7	1.0 U	NA	10 UJ	820
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	10 U	33 U
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	10 U	33 U
Bromomethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	10 U	33 U
Carbon Disulfide	ug/L	50 U	50 U	1.0 U	50 U	50 U	NA	500 U	1,700 U
Carbon Tetrachloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	10 U	33 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	10 U	33 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	Green Point Landfill X-5A 06/06/96	Green Point Landfill X-5B 06/21/95	Green Point Landfill X-5B 07/19/95	Green Point Landfill X-5B 06/06/96	Green Point Landfill X-5CR 06/21/95	Green Point Landfill X-5CR 06/05/96	Green Point Landfill X-6B 09/26/95	Green Point Landfill X-7A 15.6 - 18.6 06/20/95
Volatile Organics (Cont'd.)									
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	0.51 J	1.0 U	NA	10 U	33 U
Chloroform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	0.70 J	NA	10 U	33 U
Chloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	10 U	33 U
cis-1,2-Dichloroethene	ug/L	0.56 J	1.0 U	13	11	1.0 U	NA	10 U	33 U
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	10 U	33 U
Cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	10 U	33 U
Dibromomethane	ug/L	NA	NA	1.0 U	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	1.0 U	NA	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	1.0 U	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1.0	1.0 U	1.0 U	1.0 U	1.0 U	NA	10 UJ	40
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	1.0 U	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	R	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	1.0 U	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	1.0 U	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	5.0 U	1.0 U	1.0 U	5.0 U	1.0 U	NA	10 U	33 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	R	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	10 UJ	33 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	10 U	33 U
Toluene	ug/L	1.0 U	0.50 J	1.0 U	1.0 U	1.0 U	NA	10 UJ	33 U
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	10 U	33 U
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	10 UJ	33 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	1.0 U	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	10 U	33 U
Trichlorofluoromethane	ug/L	NA	NA	1.0 U	NA	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	2.0 U	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	1.0 U	1.2	9.8	8.8	1.0 U	NA	10 U	33 U
Total 1,3-Dichloropropenes	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	10 U	33 U
Total Xylenes	ug/L	6.7	2.3 J	3.2 U	3.0 U	3.0 U	NA	30 UJ	56 J

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
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SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Green Point Landfill X-5A 06/06/96	Green Point Landfill X-5B 06/21/95	Green Point Landfill X-5B 07/19/95	Green Point Landfill X-5B 06/06/96	Green Point Landfill X-5CR 06/21/95	Green Point Landfill X-5CR 06/05/96	Green Point Landfill X-6B 09/26/95	Green Point Landfill X-7A 15.6 - 18.6 06/20/95
Semivolatile Organics									
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	5.0 U	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	NA	5.0 U	5.0 U	20 U	20 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	R	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	5.0 U	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	50 U	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	5.0 U	5.0 U	5.0 U	NA	5.0 UJ	5.0 U	20 U	20 UJ
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	50 U	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	50 U	50 U	10 U	NA	50 UJ	50 U	200 U	200 U
2,4,6-Trichlorophenol	ug/L	5.0 U	5.0 U	5.0 U	NA	5.0 UJ	5.0 U	20 U	20 U
2,4-Dichlorophenol	ug/L	5.0 U	5.0 U	5.0 U	NA	5.0 UJ	5.0 U	20 U	20 U
2,4-Dimethylphenol	ug/L	5.0 U	5.0 U	5.0 U	NA	5.0 UJ	5.0 U	15 J	20 U
2,4-Dinitrophenol	ug/L	20 UJ	20 U	20 U	NA	20 UJ	20 U	80 U	80 U
2,4-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 U	NA	5.0 UJ	5.0 U	20 U	20 U
2,6-Dichlorophenol	ug/L	NA	NA	5.0 U	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 U	NA	5.0 UJ	5.0 U	20 U	20 U
2-Acetylaminofluorene	ug/L	NA	NA	100 U	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	5.0 U	5.0 U	5.0 U	NA	5.0 UJ	5.0 U	20 U	20 U
2-Chlorophenol	ug/L	5.0 U	5.0 U	5.0 U	NA	5.0 UJ	5.0 U	20 U	20 U
2-Methylnaphthalene	ug/L	5.0 U	5.0 U	5.0 U	NA	5.0 UJ	5.0 U	30	25
2-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	NA	5.0 UJ	5.0 U	20 U	20 U
2-Naphthylamine	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	20 U	20 U	20 U	NA	20 UJ	20 U	80 U	80 UJ
2-Nitrophenol	ug/L	5.0 U	5.0 U	5.0 U	NA	5.0 UJ	5.0 U	20 U	20 U
2-Picoline	ug/L	NA	NA	20 U	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	20 U	20 U	20 U	NA	20 UJ	20 U	80 U	80 U
3,3'-Dimethylbenzidine	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	20 U	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	5.0 U	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	20 U	20 U	20 U	NA	20 UJ	20 U	80 U	80 U
4,6-Dinitro-2-methylphenol	ug/L	20 U	20 U	20 U	NA	20 UJ	20 U	80 U	80 U
4-Aminobiphenyl	ug/L	NA	NA	50 U	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U	NA	5.0 UJ	5.0 U	20 U	20 U
4-Chloro-3-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	NA	5.0 UJ	5.0 U	20 U	20 U
4-Chloroaniline	ug/L	20 U	20 U	10 U	NA	20 UJ	20 U	80 U	80 U
4-Chlorobenzilate	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U	NA	5.0 UJ	5.0 U	20 U	20 U
4-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	NA	5.0 UJ	5.0 U	11 J	66

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
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SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	Green Point Landfill X-5A 06/06/96	Green Point Landfill X-5B 06/21/95	Green Point Landfill X-5B 07/19/95	Green Point Landfill X-5B 06/06/96	Green Point Landfill X-5CR 06/21/95	Green Point Landfill X-5CR 06/05/96	Green Point Landfill X-6B 09/26/95	Green Point Landfill X-7A 15.6 - 18.6 06/20/95
Semivolatile Organics (Cont'd.)									
4-Nitroaniline	ug/L	20 U	20 U	20 U	NA	20 UJ	20 U	80 U	80 U
4-Nitrophenol	ug/L	20 U	20 U	20 U	NA	20 UJ	20 U	80 U	80 U
4-Nitroquinoline-1-oxide	ug/L	NA	NA	100 U	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	100 UJ	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	20 U	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	20 U	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	50 UJ	NA	NA	NA	NA	NA
Acenaphthene	ug/L	5.0 U	5.0 U	5.0 U	NA	5.0 UJ	5.0 U	7.4 J	20 U
Acenaphthylene	ug/L	5.0 U	5.0 U	5.0 U	NA	5.0 UJ	5.0 U	20 U	20 U
Acetophenone	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	10 UJ	NA	NA	NA	NA	NA
Anthracene	ug/L	5.0 U	5.0 U	5.0 U	NA	5.0 UJ	5.0 U	6.6 J	20 U
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	5.0 U	5.0 U	5.0 U	NA	5.0 UJ	5.0 U	7.9 J	20 U
Benzo(a)pyrene	ug/L	5.0 U	5.0 U	5.0 U	NA	5.0 UJ	5.0 U	7.6 J	20 U
Benzo(b)fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	NA	5.0 UJ	5.0 U	12 J	20 U
Benzo(g,h,i)perylene	ug/L	5.0 U	5.0 U	5.0 U	NA	5.0 UJ	5.0 UJ	4.0 J	20 U
Benzo(k)fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	NA	5.0 UJ	5.0 U	20 U	20 U
Benzyl Alcohol	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	5.0 U	5.0 U	5.0 U	NA	5.0 UJ	5.0 U	20 U	20 U
bis(2-Chloroethyl)ether	ug/L	5.0 U	5.0 U	5.0 U	NA	5.0 UJ	5.0 U	20 U	20 U
bis(2-Ethylhexyl)phthalate	ug/L	5.0 UJ	5.0 U	5.0 U	NA	5.0 UJ	5.0 U	450	20 U
Butylbenzylphthalate	ug/L	5.0 U	5.0 U	5.0 U	NA	5.0 UJ	5.0 U	20 U	20 U
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	10 U	5.0 U	NA	NA	5.0 UJ	10 U	11 J	20 U
Chrysene	ug/L	5.0 U	5.0 U	5.0 U	NA	5.0 UJ	5.0 U	9.4 J	20 U
Diallate	ug/L	NA	NA	5.0 U	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	5.0 U	5.0 U	5.0 U	NA	5.0 UJ	5.0 UJ	20 U	20 U
Dibenzofuran	ug/L	5.0 U	5.0 U	5.0 U	NA	5.0 UJ	5.0 U	7.0 J	20 U
Diethylphthalate	ug/L	5.0 U	5.0 U	5.0 U	NA	5.0 UJ	5.0 U	20 U	6.8 J
Dimethylphthalate	ug/L	5.0 U	5.0 U	5.0 U	NA	5.0 UJ	5.0 U	20 U	20 U
Di-n-Butylphthalate	ug/L	5.0 U	5.0 U	5.0 U	NA	0.80 J	5.0 U	6.6 J	20 U
Di-n-Octylphthalate	ug/L	5.0 U	5.0 U	5.0 U	NA	5.0 UJ	5.0 U	12 J	20 U
Diphenylamine	ug/L	NA	NA	5.0 U	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
Fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	NA	5.0 UJ	5.0 U	27	20 U
Fluorene	ug/L	5.0 U	5.0 U	5.0 U	NA	5.0 UJ	5.0 U	10 J	2.9 J
Hexachlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	NA	5.0 UJ	5.0 U	20 U	20 U
Hexachlorobutadiene	ug/L	5.0 U	5.0 U	5.0 U	NA	5.0 UJ	5.0 U	20 U	20 U
Hexachlorocyclopentadiene	ug/L	5.0 U	5.0 U	5.0 U	NA	5.0 UJ	5.0 U	20 U	20 U
Hexachloroethane	ug/L	2.0 U	5.0 U	5.0 U	NA	5.0 UJ	2.0 U	20 U	20 U
Hexachloropropene	ug/L	NA	NA	100 U	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	5.0 U	5.0 U	5.0 U	NA	5.0 UJ	5.0 UJ	4.4 J	20 U

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Semivolatile Organics (Cont'd.)									
Isophorone	ug/L	5.0 U	5.0 U	5.0 U	NA	5.0 UJ	5.0 U	20 U	20 U
Isosafrole	ug/L	NA	NA	20 U	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	50 U	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
Naphthalene	ug/L	5.0 U	5.0 U	5.0 U	NA	5.0 UJ	5.0 U	54	51
Nitrobenzene	ug/L	5.0 U	5.0 U	5.0 U	NA	5.0 UJ	5.0 U	20 U	20 U
N-Nitrosodiethylamine	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	5.0 U	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	5.0 U	5.0 U	5.0 U	NA	5.0 UJ	5.0 U	20 U	20 UJ
N-Nitrosodiphenylamine	ug/L	5.0 U	5.0 U	5.0 U	NA	5.0 UJ	5.0 U	20 U	20 U
N-Nitrosomethylethylamine	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	20 U	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	20 U	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	5.0 U	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	50 U	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	25 U	20 U	25 U	NA	20 UJ	25 U	100 U	80 U
Phenacetin	ug/L	NA	NA	20 U	NA	NA	NA	NA	NA
Phenanthrene	ug/L	5.0 U	5.0 U	5.0 U	NA	5.0 UJ	5.0 U	38	4.6 J
Phenol	ug/L	5.0 U	5.0 U	5.0 U	NA	5.0 UJ	5.0 U	16 J	20 U
Pronamide	ug/L	NA	NA	20 U	NA	NA	NA	NA	NA
Pyrene	ug/L	5.0 U	5.0 U	5.0 U	NA	5.0 UJ	5.0 U	19 J	20 U
Pyridine	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	20 U	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	5.0 U	5.0 U	5.0 U	NA	5.0 U	5.0 U	20 U	20 U
PCBs									
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
PCBs-Dissolved									
Aroclor-1016 (Dissolved)	ug/L	NA	0.2 U	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U
Aroclor-1221 (Dissolved)	ug/L	NA	0.2 U	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U
Aroclor-1232 (Dissolved)	ug/L	NA	0.4 U	0.4 U	NA	0.4 U	NA	0.4 U	0.4 U
Aroclor-1242 (Dissolved)	ug/L	NA	0.2 U	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	Green Point Landfill X-5A 06/06/96	Green Point Landfill X-5B 06/21/95	Green Point Landfill X-5B 07/19/95	Green Point Landfill X-5B 06/06/96	Green Point Landfill X-5CR 06/21/95	Green Point Landfill X-5CR 06/05/96	Green Point Landfill X-6B 09/26/95	Green Point Landfill X-7A 15.6 - 18.6 06/20/95
PCBs-Dissolved (Cont'd.)									
Aroclor-1248 (Dissolved)	ug/L	NA	0.2 U	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U
Aroclor-1254 (Dissolved)	ug/L	NA	0.2 U	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U
Aroclor-1260 (Dissolved)	ug/L	NA	0.2 U	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	0.4 U	0.4 U	NA	0.4 U	NA	0.4 U	0.4 U
Organochlorine Pesticides									
4,4'-DDD	ug/L	NA	NA	0.02 UJ	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	0.02 UJ	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	0.02 UJ	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	0.01 U	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	0.01 U	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	0.02 U	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	NA	0.2 U	0.2 U	NA	0.2 U	NA	1 UJ	0.2 UJ
Aroclor-1221	ug/L	NA	0.2 U	0.2 U	NA	0.2 U	NA	1 UJ	0.2 UJ
Aroclor-1232	ug/L	NA	0.4 U	0.4 U	NA	0.4 U	NA	2 UJ	0.4 UJ
Aroclor-1242	ug/L	NA	0.2 U	0.2 U	NA	0.2 U	NA	8.2 J	0.2 UJ
Aroclor-1248	ug/L	NA	0.2 U	0.2 U	NA	0.2 U	NA	1 UJ	0.2 UJ
Aroclor-1254	ug/L	NA	0.2 U	0.2 U	NA	0.2 U	NA	1 UJ	0.2 UJ
Aroclor-1260	ug/L	NA	0.2 U	0.2 U	NA	0.2 U	NA	1 UJ	0.2 UJ
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	0.01 U	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	0.01 U	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	0.02 U	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	0.01 U	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	0.02 U	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	0.02 U	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	0.02 U	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	0.02 UJ	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	0.01 U	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	0.02 UJ	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	0.01 U	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	0.01 U	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	0.1 U	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	0.1 UJ	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	1 UJ	NA	NA	NA	NA	NA
Organophosphate Pesticides									
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	Green Point Landfill X-5A 06/06/96	Green Point Landfill X-5B 06/21/95	Green Point Landfill X-5B 07/19/95	Green Point Landfill X-5B 06/06/96	Green Point Landfill X-5CR 06/21/95	Green Point Landfill X-5CR 06/05/96	Green Point Landfill X-6B 09/26/95	Green Point Landfill X-7A 15.6 - 18.6 06/20/95
Organophosphate Pesticides (Cont'd.)									
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides									
2,4,5-T	ug/L	NA	NA	2 UJ*	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	1 UJ	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	6 UJ*	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	2 UJ*	NA	NA	NA	NA	NA
Dioxins/Furans									
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

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Dioxins/Furans (Cont'd.)									
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	0.00000085 U	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	0.00000038 U	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	0.0000019 U	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	0.0000015 U	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	0.00000085 U	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	0.0000005 U	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	0.0000016 U	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Green Point Landfill X-7A 15.6 - 18.6 06/12/96	Green Point Landfill X-7BR 22 - 27 06/20/95	Green Point Landfill X-7BR 22 - 27 06/05/96	Green Point Landfill X-7CAUG 34 - 39 06/21/95	Green Point Landfill X-7DAUG 46 - 51 06/20/95	Green Point Landfill X-7DAUG 46 - 51 06/05/96	Green Point Landfill X-9D 42.5 - 47.5 01/08/08	Green Point Landfill X-9D 42.5 - 47.5 03/11/08
Volatile Organics									
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	17 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	17 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	17 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	17 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	17 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	5.0 U	5.0 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA	NA	1.0 U	1.0 UJ
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U
1,2-Dichlorobenzene	ug/L	17 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	17 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
1,2-Dichloroethene (total)	ug/L	17 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	NA	NA
1,2-Dichloropropane	ug/L	17 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	17 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	59	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	830 U	50 U	50 U	50 U	50 U	NA	25 U	25 U
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	830 U	R	50 U	R	R	NA	50 U	50 UJ
3-Chloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	830 U	16 J	50 U	50 U	50 U	NA	50 U	50 UJ
Acetone	ug/L	1,700 U	R	100 UJ	R	R	NA	25 U	25 U
Acetonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	520 J	6.5	0.59 J	0.90 J	0.50 J	NA	1.0 U	1.0 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	17 U	1.0 U	1.0 U	3.6	4.8	NA	1.0 U	1.0 U
Bromoform	ug/L	17 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 UJ	1.0 U
Bromomethane	ug/L	17 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 UJ
Carbon Disulfide	ug/L	830 U	0.70 J	50 U	28	37	NA	5.0 U	5.0 U
Carbon Tetrachloride	ug/L	17 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
Chlorobenzene	ug/L	17 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U

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Volatile Organics (Cont'd.)									
Chloroethane	ug/L	17 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
Chloroform	ug/L	17 U	1.0 U	1.0 U	8.3	10	NA	1.0 U	1.0 U
Chloromethane	ug/L	17 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	17 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	17 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
Cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U
Dibromochloromethane	ug/L	17 U	1.0 U	1.0 U	1.2	1.5	NA	1.0 U	1.0 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	28	0.70 J	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA	NA	5.0 U	5.0 U
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA	NA	10 U	10 U
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA	NA	5.0 U	5.0 U
Methylene Chloride	ug/L	83 U	0.60 J	1.0 U	1.0 U	1.0 U	NA	5.0 U	5.0 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	17 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	17 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
Toluene	ug/L	17 U	0.40 J	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	17 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	17 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 UJ
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	17 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA	NA	1.0 U	1.0 UJ
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	17 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 UJ
Total 1,3-Dichloropropenes	ug/L	17 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
Total Xylenes	ug/L	41 J	3.0 U	3.0 U	3.0 U	3.0 U	NA	2.0 U	2.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Green Point Landfill X-7A 15.6 - 18.6 06/12/96	Green Point Landfill X-7BR 22 - 27 06/20/95	Green Point Landfill X-7BR 22 - 27 06/05/96	Green Point Landfill X-7CAUG 34 - 39 06/21/95	Green Point Landfill X-7DAUG 46 - 51 06/20/95	Green Point Landfill X-7DAUG 46 - 51 06/05/96	Green Point Landfill X-9D 42.5 - 47.5 01/08/08	Green Point Landfill X-9D 42.5 - 47.5 03/11/08
Semivolatile Organics									
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	25 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	250 U	50 U	50 U	50 U	50 U	50 U	5.0 U	5.0 U
2,4,6-Trichlorophenol	ug/L	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	4.0 U	4.0 U
2,4-Dichlorophenol	ug/L	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U
2,4-Dimethylphenol	ug/L	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dinitrophenol	ug/L	100 U	20 U	20 U	20 U	20 U	20 U	20 U	20 UJ
2,4-Dinitrotoluene	ug/L	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Chlorophenol	ug/L	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Methylnaphthalene	ug/L	19 J	0.50 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Methylphenol	ug/L	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	100 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
2-Nitrophenol	ug/L	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Picoline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	100 U	20 U	20 U	20 U	20 U	20 U	4.0 U	4.0 U
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	100 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
4,6-Dinitro-2-methylphenol	ug/L	100 U	20 U	20 U	20 U	20 UJ	20 U	20 U	20 U
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloro-3-Methylphenol	ug/L	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloroaniline	ug/L	100 U	20 U	20 U	20 U	20 U	20 U	10 U	10 U
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methylphenol	ug/L	85	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Green Point Landfill X-7A 15.6 - 18.6 06/12/96	Green Point Landfill X-7BR 22 - 27 06/20/95	Green Point Landfill X-7BR 22 - 27 06/05/96	Green Point Landfill X-7CAUG 34 - 39 06/21/95	Green Point Landfill X-7DAUG 46 - 51 06/20/95	Green Point Landfill X-7DAUG 46 - 51 06/05/96	Green Point Landfill X-9D 42.5 - 47.5 01/08/08	Green Point Landfill X-9D 42.5 - 47.5 03/11/08
Semivolatile Organics (Cont'd.)									
4-Nitroaniline	ug/L	100 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
4-Nitrophenol	ug/L	100 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acenaphthylene	ug/L	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	5.0 U	5.0 U
Aniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	3.0 U	3.0 U
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	10 U	10 U
Benzo(a)anthracene	ug/L	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
Benzo(a)pyrene	ug/L	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
Benzo(b)fluoranthene	ug/L	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
Benzo(g,h,i)perylene	ug/L	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	1.0 U	1.0 U
Benzo(k)fluoranthene	ug/L	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	10 U	10 U
bis(2-Chloroethoxy)methane	ug/L	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Chloroethyl)ether	ug/L	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
bis(2-Ethylhexyl)phthalate	ug/L	25 U	5.0 U	2.4 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Butylbenzylphthalate	ug/L	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	10 UJ	10 U
Carbazole	ug/L	50 U	5.0 U	10 U	5.0 U	5.0 U	10 U	10 U	10 U
Chrysene	ug/L	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
Diallate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	2.0 U	2.0 U
Dibenzofuran	ug/L	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	4.0 U	4.0 U
Diethylphthalate	ug/L	9.5 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dimethylphthalate	ug/L	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Di-n-Butylphthalate	ug/L	25 U	5.0 U	5.0 U	5.0 U	1.5 J	5.0 U	5.0 U	5.0 U
Di-n-Octylphthalate	ug/L	25 U	5.0 U	5.0 U	5.0 U	0.80 J	5.0 U	5.0 U	5.0 U
Diphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
Fluorene	ug/L	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobenzene	ug/L	25 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U	0.20 U	0.20 U
Hexachlorobutadiene	ug/L	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
Hexachlorocyclopentadiene	ug/L	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	R
Hexachloroethane	ug/L	10 U	5.0 U	2.0 U	5.0 U	5.0 U	2.0 U	5.0 U	5.0 U
Hexachloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	2.0 U	2.0 U

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Green Point Landfill X-7A 15.6 - 18.6 06/12/96	Green Point Landfill X-7BR 22 - 27 06/20/95	Green Point Landfill X-7BR 22 - 27 06/05/96	Green Point Landfill X-7CAUG 34 - 39 06/21/95	Green Point Landfill X-7DAUG 46 - 51 06/20/95	Green Point Landfill X-7DAUG 46 - 51 06/05/96	Green Point Landfill X-9D 42.5 - 47.5 01/08/08	Green Point Landfill X-9D 42.5 - 47.5 03/11/08
Semivolatile Organics (Cont'd.)									
Isophorone	ug/L	25 U	5.0 U	5.0 U	5.0 U	19	5.0 U	5.0 U	5.0 U
Isosafrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	39	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Nitrobenzene	ug/L	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	3.0 U	3.0 U
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosodiphenylamine	ug/L	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	120 U	20 UJ	25 U	20 U	20 U	25 U	5.0 U	5.0 U
Phenacetin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	2.0 U	2.0 U
Phenol	ug/L	25	5.7 B	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Pronamide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
PCBs									
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	0.20 U	0.20 U
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	0.20 U	0.20 U
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	0.20 U	0.20 U
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	0.20 U	0.20 U
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	0.20 U	0.20 U
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	0.20 U	0.20 U
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	0.20 U	0.20 U
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	0.20 U	0.20 U
PCBs-Dissolved									
Aroclor-1016 (Dissolved)	ug/L	NA	0.2 U	NA	0.2 U	0.2 U	NA	NA	NA
Aroclor-1221 (Dissolved)	ug/L	NA	0.2 U	NA	0.2 U	0.2 U	NA	NA	NA
Aroclor-1232 (Dissolved)	ug/L	NA	0.4 U	NA	0.4 U	0.4 U	NA	NA	NA
Aroclor-1242 (Dissolved)	ug/L	NA	0.2 U	NA	0.2 U	0.2 U	NA	NA	NA

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ORGANIC COMPOUNDS

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

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PCBs-Dissolved (Cont'd.)									
Aroclor-1248 (Dissolved)	ug/L	NA	0.2 U	NA	0.2 U	0.2 U	NA	NA	NA
Aroclor-1254 (Dissolved)	ug/L	NA	0.2 U	NA	0.2 U	0.2 U	NA	NA	NA
Aroclor-1260 (Dissolved)	ug/L	NA	0.2 U	NA	0.2 U	0.2 U	NA	NA	NA
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	0.4 U	NA	0.4 U	0.4 U	NA	NA	NA
Organochlorine Pesticides									
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	NA	0.2 U	NA	0.2 U	0.2 U	NA	NA	NA
Aroclor-1221	ug/L	NA	0.2 U	NA	0.2 U	0.2 U	NA	NA	NA
Aroclor-1232	ug/L	NA	0.4 U	NA	0.4 U	0.4 U	NA	NA	NA
Aroclor-1242	ug/L	NA	0.2 U	NA	0.2 U	0.2 U	NA	NA	NA
Aroclor-1248	ug/L	NA	0.2 U	NA	0.2 U	0.2 U	NA	NA	NA
Aroclor-1254	ug/L	NA	0.2 U	NA	0.2 U	0.2 U	NA	NA	NA
Aroclor-1260	ug/L	NA	0.2 U	NA	0.2 U	0.2 U	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Organophosphate Pesticides									
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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Sample ID: Sample Depth (feet): Date Collected:	Units	Green Point Landfill X-7A 15.6 - 18.6 06/12/96	Green Point Landfill X-7BR 22 - 27 06/20/95	Green Point Landfill X-7BR 22 - 27 06/05/96	Green Point Landfill X-7CAUG 34 - 39 06/21/95	Green Point Landfill X-7DAUG 46 - 51 06/20/95	Green Point Landfill X-7DAUG 46 - 51 06/05/96	Green Point Landfill X-9D 42.5 - 47.5 01/08/08	Green Point Landfill X-9D 42.5 - 47.5 03/11/08
Organophosphate Pesticides (Cont'd.)									
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides									
2,4,5-T	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans									
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	Green Point Landfill X-7A 15.6 - 18.6 06/12/96	Green Point Landfill X-7BR 22 - 27 06/20/95	Green Point Landfill X-7BR 22 - 27 06/05/96	Green Point Landfill X-7CAUG 34 - 39 06/21/95	Green Point Landfill X-7DAUG 46 - 51 06/20/95	Green Point Landfill X-7DAUG 46 - 51 06/05/96	Green Point Landfill X-9D 42.5 - 47.5 01/08/08	Green Point Landfill X-9D 42.5 - 47.5 03/11/08
Dioxins/Furans (Cont'd.)									
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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ORGANIC COMPOUNDS

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SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Green Point Landfill X-10A 7.7 - 10.7 06/13/96	Green Point Landfill X-10A 7.7 - 10.7 05/24/00	Green Point Landfill X-10AR2 6 - 16 11/27/01	Green Point Landfill X-10AR2 6 - 16 06/26/02	Green Point Landfill X-10AR2 6 - 16 06/19/03	Green Point Landfill X-10AR2 6 - 16 05/25/04	Green Point Landfill X-10AR2 6 - 16 06/22/05	Green Point Landfill X-10AR2 6 - 16 12/13/06
Volatile Organics									
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	1.0 U [1.0 U]	1.0 U	NA	NA	NA	1.0 U [1.0 U]
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U [1.0 U]
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	1.0 U [1.0 U]	1.0 U	NA	NA	NA	5.0 U [5.0 U]
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	2.0 U [2.0 U]	2.0 U	NA	NA	NA	1.0 U [1.0 U]
1,2-Dibromoethane	ug/L	NA	NA	1.0 U [1.0 U]	1.0 U	NA	NA	NA	1.0 U [1.0 U]
1,2-Dichlorobenzene	ug/L	1.0 U	NA	1.0 U [1.0 U]	1.0 U	NA	NA	NA	1.0 U [1.0 U]
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U [1.0 U]
1,2-Dichloroethene (total)	ug/L	1.0 U	1.0 U	NA	NA	NA	NA	2.0 U	NA
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1.0 U	NA	1.0 U [1.0 U]	1.0 U	NA	NA	NA	1.0 U [1.0 U]
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	1.0 U	NA	1.0 U [1.0 U]	1.0 U	NA	NA	NA	1.0 U [1.0 U]
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	50 U	10 UJ	10 UJ [10 UJ]	10 U	2.0 U	2.0 UJ	25 U	25 UJ [25 UJ]
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	50 U	10 U	10 UJ [10 UJ]	10 U	2.0 U	2.0 UJ	50 U	50 UJ [50 UJ]
3-Chloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U	10 U	10 U [10 U]	10 U	2.0 U	2.0 UJ	50 U	50 U [50 U]
Acetone	ug/L	100 U	10 U	10 UJ [10 UJ]	10 UJ	2.0 U	2.0 UJ	25 U	25 UJ [25 UJ]
Acetonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	5.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
Bromoform	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
Bromomethane	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
Carbon Disulfide	ug/L	50 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U [5.0 U]
Carbon Tetrachloride	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ [1.0 UJ]
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]

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SAGINAW, MICHIGAN

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Volatile Organics (Cont'd.)									
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
Chloroform	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
Chloromethane	ug/L	1.0 U	1.0 UJ	1.0 UJ [1.0 UJ]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
cis-1,2-Dichloroethene	ug/L	1.0 U	0.50 U	0.50 U [0.50 U]	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
Cyclohexane	ug/L	NA	NA	1.0 U [1.0 U]	1.0 U	NA	NA	NA	1.0 U [1.0 U]
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	1.0 UJ [1.0 UJ]	1.0 U	NA	NA	NA	1.0 UJ [1.0 UJ]
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	1.0 U [1.0 U]	1.0 U	NA	NA	NA	5.0 U [5.0 U]
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	10 U [10 U]	10 U	NA	NA	NA	10 U [10 U]
Methyl cyclohexane	ug/L	NA	NA	1.0 U [1.0 U]	1.0 U	NA	NA	NA	1.0 U [1.0 U]
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	5.0 U [5.0 U]	5.0 U	NA	NA	NA	5.0 U [5.0 U]
Methylene Chloride	ug/L	5.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 UJ	5.0 U	5.0 U [5.0 U]
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
Toluene	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
trans-1,2-Dichloroethene	ug/L	1.0 U	0.50 U	0.50 U [0.50 U]	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0	1.0 U [1.0 U]
Trichlorofluoromethane	ug/L	NA	NA	1.0 U [1.0 U]	1.0 U	NA	NA	NA	1.0 U [1.0 U]
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
Total 1,3-Dichloropropenes	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
Total Xylenes	ug/L	3.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U [2.0 U]

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SAGINAW, MICHIGAN

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Semivolatile Organics									
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	50 U	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	20 U	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	20 U	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA
2-Picoline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	20 U	NA	NA	NA	NA	NA	NA	NA
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	20 U	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	20 U	NA	NA	NA	NA	NA	NA	NA
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	20 U	NA	NA	NA	NA	NA	NA	NA
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

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SAGINAW, MICHIGAN

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Semivolatile Organics (Cont'd.)									
4-Nitroaniline	ug/L	20 U	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	20 U	NA	NA	NA	NA	NA	NA	NA
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	10 U	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA
Diallate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA
Diphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	2.0 U	NA	NA	NA	NA	NA	NA	NA
Hexachloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA

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Semivolatile Organics (Cont'd.)									
Isophorone	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA
Isosafrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	25 U	NA	NA	NA	NA	NA	NA	NA
Phenacetin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA
Pronamide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA
PCBs									
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
PCBs-Dissolved									
Aroclor-1016 (Dissolved)	ug/L	0.2 U	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (Dissolved)	ug/L	0.2 U	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (Dissolved)	ug/L	0.4 U	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (Dissolved)	ug/L	0.2 U	NA	NA	NA	NA	NA	NA	NA

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PCBs-Dissolved (Cont'd.)									
Aroclor-1248 (Dissolved)	ug/L	0.2 U	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (Dissolved)	ug/L	0.2 U	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (Dissolved)	ug/L	0.2 U	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	0.4 U	NA	NA	NA	NA	NA	NA	NA
Organochlorine Pesticides									
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	0.2 U	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	0.2 U	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	0.4 U	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	0.2 U	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	0.2 U	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	0.2 U	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	0.2 U	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Organophosphate Pesticides									
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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Organophosphate Pesticides (Cont'd.)									
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides									
2,4,5-T	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans									
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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Dioxins/Furans (Cont'd.)									
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	Green Point Landfill X-10BR 26.3 - 31.3 07/24/95	Green Point Landfill X-10BR 26.3 - 31.3 12/15/06	Green Point Landfill X-10CR 36.4 - 41.4 07/24/95	Green Point Landfill X-10CR 36.4 - 41.4 12/13/06	Green Point Landfill X-10DAUG 22 - 27 07/24/95	Green Point Landfill X-10DAUG 22 - 27 12/14/06	Green Point Landfill X-16A 5.5 - 8.8 07/27/95	Green Point Landfill X-16A 5.5 - 8.8 06/06/96
Volatile Organics									
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	NA
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	NA
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	NA	NA
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	NA
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	NA
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	NA
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	5.0 U	NA	5.0 U	NA	5.0 U [5.0 U]	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	NA	NA
1,2-Dibromoethane	ug/L	NA	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	NA	NA
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	5.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	NA
1,2-Dichloroethene (total)	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	5.0 U
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	5.0 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	50 U	25 U	50 U	25 UJ	50 UJ	25 U [0.59 J]	50 U	NA
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	50 U	50 U	50 U	50 UJ	50 U	50 U [50 U]	R	NA
3-Chloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U	50 U	50 U	50 U	50 U	50 U [50 U]	50 U	NA
Acetone	ug/L	50 U	25 UJ	50 U	25 UJ	50 UJ	25 UJ [25 UJ]	50 U	NA
Acetonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	NA
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	NA
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	NA
Bromomethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	NA
Carbon Disulfide	ug/L	50 U	5.0 U	50 U	5.0 U	50 U	5.0 U [5.0 U]	50 U	NA
Carbon Tetrachloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U [1.0 U]	1.0 U	NA
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	NA

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Green Point Landfill X-10BR 26.3 - 31.3 07/24/95	Green Point Landfill X-10BR 26.3 - 31.3 12/15/06	Green Point Landfill X-10CR 36.4 - 41.4 07/24/95	Green Point Landfill X-10CR 36.4 - 41.4 12/13/06	Green Point Landfill X-10DAUG 22 - 27 07/24/95	Green Point Landfill X-10DAUG 22 - 27 12/14/06	Green Point Landfill X-16A 5.5 - 8.8 07/27/95	Green Point Landfill X-16A 5.5 - 8.8 06/06/96
Volatile Organics (Cont'd.)									
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	NA
Chloroform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	NA
Chloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	NA
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	NA
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	NA
Cyclohexane	ug/L	NA	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	NA	NA
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	NA
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	1.0 UJ	NA	1.0 UJ	NA	1.0 UJ [1.0 UJ]	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	5.0 U	NA	5.0 U	NA	5.0 U [5.0 U]	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	10 U	NA	10 U	NA	10 U [10 U]	NA	NA
Methyl cyclohexane	ug/L	NA	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	5.0 U	NA	5.0 U	NA	5.0 U [5.0 U]	NA	NA
Methylene Chloride	ug/L	1.0 U	5.0 U	1.0 U	5.0 U	1.0 UJ	5.0 U [5.0 U]	1.0 U	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	NA
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	NA
Toluene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	NA
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	NA
trans-1,3-Dichloropropene	ug/L	1.0 UJ	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 UJ	NA
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	NA
Trichlorofluoromethane	ug/L	NA	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	NA
Total 1,3-Dichloropropenes	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	NA
Total Xylenes	ug/L	3.0 U	2.0 U	3.0 U	2.0 U	3.0 U	2.0 U [2.0 U]	3.0 U	NA

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Semivolatile Organics									
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5.0 U	NA	5.0 U	NA	5.0 U	NA	5.0 U	5.0 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	50 U	5.0 U	50 U	5.0 U	50 U	5.0 U	50 U	50 U
2,4,6-Trichlorophenol	ug/L	5.0 U	4.0 U	5.0 U	4.0 U	5.0 U	4.0 U	5.0 U	5.0 U
2,4-Dichlorophenol	ug/L	5.0 U	10 U	5.0 U	10 U	5.0 U	10 U	5.0 U	5.0 U
2,4-Dimethylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dinitrophenol	ug/L	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 UJ
2,4-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Chlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Methylnaphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
2-Nitrophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Picoline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	20 U	4.0 U	20 U	4.0 U	20 U	4.0 U	20 U	20 U
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
4,6-Dinitro-2-methylphenol	ug/L	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloro-3-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloroaniline	ug/L	20 U	10 U	20 U	10 U	20 U	10 U	20 U	20 U
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

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Semivolatile Organics (Cont'd.)									
4-Nitroaniline	ug/L	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
4-Nitrophenol	ug/L	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acenaphthylene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetophenone	ug/L	NA	5.0 U	NA	5.0 U	NA	5.0 U	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Atrazine	ug/L	NA	3.0 U	NA	3.0 U	NA	3.0 U	NA	NA
Benzaldehyde	ug/L	NA	10 U	NA	10 U	NA	10 U	NA	NA
Benzo(a)anthracene	ug/L	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U
Benzo(a)pyrene	ug/L	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U
Benzo(b)fluoranthene	ug/L	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U
Benzo(g,h,i)perylene	ug/L	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U
Benzo(k)fluoranthene	ug/L	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	10 U	NA	10 U	NA	10 U	NA	NA
bis(2-Chloroethoxy)methane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Chloroethyl)ether	ug/L	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U
bis(2-Ethylhexyl)phthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.2 J	1.5 J	5.0 UJ
Butylbenzylphthalate	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U
Caprolactam	ug/L	NA	3.3 J	NA	8.7 J	NA	3.7 J	NA	NA
Carbazole	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene	ug/L	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U
Diallate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	5.0 U	2.0 U	5.0 U	2.0 U	5.0 U	2.0 U	5.0 U	5.0 U
Dibenzofuran	ug/L	5.0 U	4.0 U	5.0 U	4.0 U	5.0 U	4.0 U	5.0 U	5.0 U
Diethylphthalate	ug/L	5.0 U	R	5.0 U	5.0 U	5.0 U	R	5.0 U	5.0 U
Dimethylphthalate	ug/L	5.0 U	R	5.0 U	5.0 U	5.0 U	R	5.0 U	5.0 U
Di-n-Butylphthalate	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U
Di-n-Octylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Diphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U
Fluorene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobenzene	ug/L	5.0 U	0.20 U	5.0 U	0.20 U	5.0 U	0.20 U	5.0 U	5.0 U
Hexachlorobutadiene	ug/L	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U
Hexachlorocyclopentadiene	ug/L	5.0 U	R	5.0 U	R	5.0 U	R	5.0 U	5.0 U
Hexachloroethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	2.0 U
Hexachloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	5.0 U	2.0 U	5.0 U	2.0 U	5.0 U	2.0 U	5.0 U	5.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Green Point Landfill X-10BR 26.3 - 31.3 07/24/95	Green Point Landfill X-10BR 26.3 - 31.3 12/15/06	Green Point Landfill X-10CR 36.4 - 41.4 07/24/95	Green Point Landfill X-10CR 36.4 - 41.4 12/13/06	Green Point Landfill X-10DAUG 22 - 27 07/24/95	Green Point Landfill X-10DAUG 22 - 27 12/14/06	Green Point Landfill X-16A 5.5 - 8.8 07/27/95	Green Point Landfill X-16A 5.5 - 8.8 06/06/96
Semivolatile Organics (Cont'd.)									
Isophorone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Isosafrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Nitrobenzene	ug/L	5.0 U	3.0 U	5.0 U	3.0 U	5.0 U	3.0 U	5.0 U	5.0 U
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosodiphenylamine	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	25 U	5.0 U	25 U	5.0 U	25 U	5.0 U	25 U	25 U
Phenacetin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	5.0 U	2.0 U	5.0 U	2.0 U	5.0 U	2.0 U	5.0 U	5.0 U
Phenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Pronamide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
PCBs									
Aroclor-1016	ug/L	NA	0.20 U	NA	0.20 U	NA	0.20 U	NA	NA
Aroclor-1221	ug/L	NA	0.20 U	NA	0.20 U	NA	0.20 U	NA	NA
Aroclor-1232	ug/L	NA	0.20 U	NA	0.20 U	NA	0.20 U	NA	NA
Aroclor-1242	ug/L	NA	0.20 U	NA	0.20 U	NA	0.20 U	NA	NA
Aroclor-1248	ug/L	NA	0.20 U	NA	0.20 U	NA	0.20 U	NA	NA
Aroclor-1254	ug/L	NA	0.20 U	NA	0.20 U	NA	0.20 U	NA	NA
Aroclor-1260	ug/L	NA	0.20 U	NA	0.20 U	NA	0.20 U	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	0.20 U	NA	0.20 U	NA	0.20 U	NA	NA
PCBs-Dissolved									
Aroclor-1016 (Dissolved)	ug/L	0.2 U	NA	0.2 UJ	NA	0.2 U	NA	0.2 U	NA
Aroclor-1221 (Dissolved)	ug/L	0.2 U	NA	0.2 UJ	NA	0.2 U	NA	0.2 U	NA
Aroclor-1232 (Dissolved)	ug/L	0.4 U	NA	0.4 UJ	NA	0.4 U	NA	0.4 U	NA
Aroclor-1242 (Dissolved)	ug/L	0.2 U	NA	0.2 UJ	NA	0.2 U	NA	0.2 U	NA

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SAGINAW, MICHIGAN

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PCBs-Dissolved (Cont'd.)									
Aroclor-1248 (Dissolved)	ug/L	0.2 U	NA	0.2 UJ	NA	0.2 U	NA	0.2 U	NA
Aroclor-1254 (Dissolved)	ug/L	0.2 U	NA	0.2 UJ	NA	0.2 U	NA	0.2 U	NA
Aroclor-1260 (Dissolved)	ug/L	0.2 U	NA	0.2 UJ	NA	0.2 U	NA	0.2 U	NA
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	0.4 U	NA	0.4 U	NA	0.4 U	NA	0.4 U	NA
Organochlorine Pesticides									
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	0.2 UJ	NA	0.2 UJ	NA	0.2 UJ	NA	0.2 U	NA
Aroclor-1221	ug/L	0.2 UJ	NA	0.2 UJ	NA	0.2 UJ	NA	0.2 U	NA
Aroclor-1232	ug/L	0.4 UJ	NA	0.4 UJ	NA	0.4 UJ	NA	0.4 U	NA
Aroclor-1242	ug/L	0.2 UJ	NA	0.2 UJ	NA	0.2 UJ	NA	0.2 U	NA
Aroclor-1248	ug/L	0.2 UJ	NA	0.2 UJ	NA	0.2 UJ	NA	0.2 U	NA
Aroclor-1254	ug/L	0.2 UJ	NA	0.2 UJ	NA	0.2 UJ	NA	0.2 U	NA
Aroclor-1260	ug/L	0.2 UJ	NA	0.2 UJ	NA	0.2 UJ	NA	0.2 U	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Organophosphate Pesticides									
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

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Organophosphate Pesticides (Cont'd.)									
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides									
2,4,5-T	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans									
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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Dioxins/Furans (Cont'd.)									
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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Volatile Organics									
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	1.0 U	NA	NA	NA	1.0 U	NA
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	1.0 U	NA	NA	NA	5.0 U	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	2.0 U	NA	NA	NA	1.0 U	NA
1,2-Dibromoethane	ug/L	NA	NA	1.0 U	NA	NA	NA	1.0 U	NA
1,2-Dichlorobenzene	ug/L	NA	NA	1.0 U	NA	NA	NA	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
1,2-Dichloroethene (total)	ug/L	1.0 U	1.0 U	NA	NA	NA	2.0 U	NA	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	1.0 U	NA	NA	NA	1.0 U	1.0 U
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	1.0 U	NA	NA	NA	1.0 U	1.0 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	10 UJ	10 U	10 U	2.0 U	2.0 UJ [2.0 UJ]	0.71 J	25 U	50 UJ
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	10 U	10 U	10 U	2.0 U	2.0 U [2.0 U]	50 U	50 U	50 U
3-Chloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	10 U	5.0 U	10 U	2.0 U	2.0 U [2.0 U]	50 U	50 U	50 U
Acetone	ug/L	10 U	10 U	10 U	2.0 UJ	2.0 UJ [2.0 UJ]	25 U	25 UJ	50 UJ
Acetonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Bromomethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Carbon Disulfide	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	5.0 U	5.0 U	50 U
Carbon Tetrachloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	Green Point Landfill X-16A 5.5 - 8.8 05/24/00	Green Point Landfill X-16A 5.5 - 8.8 06/19/01	Green Point Landfill X-16A 5.5 - 8.8 06/25/02	Green Point Landfill X-16A 5.5 - 8.8 06/17/03	Green Point Landfill X-16A 5.5 - 8.8 05/26/04	Green Point Landfill X-16A 5.5 - 8.8 06/21/05	Green Point Landfill X-16A 5.5 - 8.8 12/12/06	Green Point Landfill X-16B 20.4 - 23.4 07/28/95
Volatile Organics (Cont'd.)									
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Chloroform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Chloromethane	ug/L	0.18 J	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	0.28 J	0.50 U	0.50 U	1.0 U	0.39 J [0.37 J]	0.31 J	0.32 J	1.0 U
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	NA	NA	1.0 U	NA	NA	NA	1.0 U	NA
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	1.0 U	NA	NA	NA	1.0 U	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	1.0 U	NA	NA	NA	5.0 U	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	10 U	NA	NA	NA	10 U	NA
Methyl cyclohexane	ug/L	NA	NA	1.0 U	NA	NA	NA	1.0 U	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	5.0 U	NA	NA	NA	5.0 U	NA
Methylene Chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ [1.0 UJ]	5.0 U	5.0 U	1.0 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Toluene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	0.19 J	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ [1.0 UJ]	0.59 J	1.0 U	1.0 U
Trichlorofluoromethane	ug/L	NA	NA	1.0 U	NA	NA	NA	1.0 U	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	5.8	4.3	4.4	4.2	6.3 [6.4]	5.1	7.0	1.0 U
Total 1,3-Dichloropropenes	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Total Xylenes	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	0.52 J	3.0 U

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

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Semivolatile Organics									
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	50 U
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	20 U
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	20 U
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
2-Picoline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	20 U
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	20 U
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	20 U
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
4-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	20 U
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U

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ORGANIC COMPOUNDS

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SAGINAW, MICHIGAN

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Semivolatile Organics (Cont'd.)									
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	20 U
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	20 U
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
Benzo(a)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
Benzo(k)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
Butylbenzylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	10 U
Chrysene	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
Diallate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
Diethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
Dimethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
Di-n-Butylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
Di-n-Octylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
Diphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
Fluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
Hexachloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U

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Semivolatile Organics (Cont'd.)									
Isophorone	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
Isosafrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	25 U
Phenacetin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
Phenol	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
Pronamide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
PCBs									
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
PCBs-Dissolved									
Aroclor-1016 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Green Point Landfill X-16A 5.5 - 8.8 05/24/00	Green Point Landfill X-16A 5.5 - 8.8 06/19/01	Green Point Landfill X-16A 5.5 - 8.8 06/25/02	Green Point Landfill X-16A 5.5 - 8.8 06/17/03	Green Point Landfill X-16A 5.5 - 8.8 05/26/04	Green Point Landfill X-16A 5.5 - 8.8 06/21/05	Green Point Landfill X-16A 5.5 - 8.8 12/12/06	Green Point Landfill X-16B 20.4 - 23.4 07/28/95
PCBs-Dissolved (Cont'd.)									
Aroclor-1248 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Organochlorine Pesticides									
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	0.2 U
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	0.2 U
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	0.4 U
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	0.2 U
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	0.2 U
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	0.2 U
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	0.2 U
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Organophosphate Pesticides									
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	Green Point Landfill X-16A 5.5 - 8.8 05/24/00	Green Point Landfill X-16A 5.5 - 8.8 06/19/01	Green Point Landfill X-16A 5.5 - 8.8 06/25/02	Green Point Landfill X-16A 5.5 - 8.8 06/17/03	Green Point Landfill X-16A 5.5 - 8.8 05/26/04	Green Point Landfill X-16A 5.5 - 8.8 06/21/05	Green Point Landfill X-16A 5.5 - 8.8 12/12/06	Green Point Landfill X-16B 20.4 - 23.4 07/28/95
Organophosphate Pesticides (Cont'd.)									
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides									
2,4,5-T	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans									
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

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Dioxins/Furans (Cont'd.)									
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

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Volatile Organics									
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	1.0 U	NA	NA	NA	1.0 U	NA
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	1.0 U	NA	NA	NA	5.0 U	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	2.0 U	NA	NA	NA	1.0 U	NA
1,2-Dibromoethane	ug/L	NA	NA	1.0 U	NA	NA	NA	1.0 U	NA
1,2-Dichlorobenzene	ug/L	NA	NA	1.0 U	NA	NA	NA	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethene (total)	ug/L	1.0 U	1.0 U	NA	NA	NA	2.0 U	NA	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	1.0 U	NA	NA	NA	1.0 U	1.0 U
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	1.0 U	NA	NA	NA	1.0 U	1.0 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	10 U	10 U	10 U	2.0 U	2.0 UJ	25 U	25 U	50 U
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	10 U	10 U	10 U	2.0 U	2.0 U	50 U	50 U	R
3-Chloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	10 U	5.0 U	10 U	2.0 U	2.0 U	50 U	50 U	50 U
Acetone	ug/L	10 U	10 U	10 UJ	2.0 UJ	2.0 UJ	25 U	25 UJ	50 U
Acetonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Disulfide	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	50 U
Carbon Tetrachloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

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Volatile Organics (Cont'd.)									
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	NA	NA	1.0 U	NA	NA	NA	1.0 U	NA
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	1.0 U	NA	NA	NA	1.0 U	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	1.0 U	NA	NA	NA	5.0 U	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	10 U	NA	NA	NA	10 U	NA
Methyl cyclohexane	ug/L	NA	NA	1.0 U	NA	NA	NA	1.0 U	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	5.0 U	NA	NA	NA	5.0 U	NA
Methylene Chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	5.0 U	5.0 U	1.0 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	0.68 J	1.0 U	1.0 U
Trichlorofluoromethane	ug/L	NA	NA	1.0 U	NA	NA	NA	1.0 U	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	1.0 U	0.34 J	0.48 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total 1,3-Dichloropropenes	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total Xylenes	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	0.52 J	3.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Green Point Landfill X-16B 20.4 - 23.4 05/19/00	Green Point Landfill X-16B 20.4 - 23.4 06/20/01	Green Point Landfill X-16B 20.4 - 23.4 06/26/02	Green Point Landfill X-16B 20.4 - 23.4 06/17/03	Green Point Landfill X-16B 20.4 - 23.4 05/26/04	Green Point Landfill X-16B 20.4 - 23.4 06/21/05	Green Point Landfill X-16B 20.4 - 23.4 12/12/06	Green Point Landfill X-17R 2 - 12 07/26/95
Semivolatile Organics									
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 UJ
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	50 U
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	20 U
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	20 U
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
2-Picoline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	20 U
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	20 U
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	20 U
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
4-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	20 U
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U

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SAGINAW, MICHIGAN

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Semivolatile Organics (Cont'd.)									
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	20 U
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	20 U
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
Benzo(a)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
Benzo(k)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
Butylbenzylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	10 U
Chrysene	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
Diallate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
Diethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
Dimethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
Di-n-Butylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
Di-n-Octylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
Diphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
Fluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
Hexachloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U

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SAGINAW, MICHIGAN

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Semivolatile Organics (Cont'd.)									
Isophorone	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
Isosafrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	25 U
Phenacetin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
Phenol	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
Pronamide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
PCBs									
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
PCBs-Dissolved									
Aroclor-1016 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	0.2 U
Aroclor-1221 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	0.8 U*
Aroclor-1232 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	0.4 U
Aroclor-1242 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	0.2 U

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PCBs-Dissolved (Cont'd.)									
Aroclor-1248 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	0.2 U
Aroclor-1254 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	0.2 U
Aroclor-1260 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	0.2 U
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	0.8 U
Organochlorine Pesticides									
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	0.21 U
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	0.21 U
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	0.42 U
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	0.21 U
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	0.21 U
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	0.21 U
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	0.21 U
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Organophosphate Pesticides									
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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Organophosphate Pesticides (Cont'd.)									
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides									
2,4,5-T	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans									
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	Green Point Landfill X-16B 20.4 - 23.4 05/19/00	Green Point Landfill X-16B 20.4 - 23.4 06/20/01	Green Point Landfill X-16B 20.4 - 23.4 06/26/02	Green Point Landfill X-16B 20.4 - 23.4 06/17/03	Green Point Landfill X-16B 20.4 - 23.4 05/26/04	Green Point Landfill X-16B 20.4 - 23.4 06/21/05	Green Point Landfill X-16B 20.4 - 23.4 12/12/06	Green Point Landfill X-17R 2 - 12 07/26/95
Dioxins/Furans (Cont'd.)									
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Green Point Landfill X-17R 2 - 12 06/04/96	Green Point Landfill X-17R 2 - 12 05/18/00	Green Point Landfill X-18R 4.2 - 7.2 07/25/95	Green Point Landfill X-19AR 2 - 12 07/28/95	Green Point Landfill X-19AR 2 - 12 06/04/96	LNAPL Assessment Area MW-132S1 22 - 27 07/21/95	LNAPL Assessment Area MW-132S1 22 - 27 06/07/96
Volatile Organics								
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1.0 U [1.0 U]	NA	1.0 U	1.0 U	NA	1.0 U	NA
1,1,2,2-Tetrachloroethane	ug/L	1.0 U [1.0 U]	NA	1.0 UJ	1.0 U	NA	1.0 U	NA
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	1.0 U [1.0 U]	NA	1.0 U	1.0 U	NA	1.0 U	NA
1,1-Dichloroethane	ug/L	1.0 U [1.0 U]	NA	1.0 U	1.0 U	NA	1.0 U	NA
1,1-Dichloroethene	ug/L	1.0 U [1.0 U]	NA	1.0 U	1.0 U	NA	1.0 U	NA
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	1.0 U [1.0 U]	NA	1.0 U	1.0 U	5.0 U	1.0 U	5.0 U
1,2-Dichloroethane	ug/L	1.0 U [1.0 U]	NA	1.0 U	1.0 U	NA	1.0 U	NA
1,2-Dichloroethene (total)	ug/L	1.0 U [1.0 U]	NA	1.0 U	1.0 U	NA	1.0 U	NA
1,2-Dichloropropane	ug/L	1.0 U [1.0 U]	NA	1.0 U	1.0 U	NA	1.0 U	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1.0 U [1.0 U]	NA	1.0 U	1.0 U	5.0 U	1.0 U	5.0 U
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	1.0 U [1.0 U]	NA	1.0 U	1.0 U	5.0 U	1.0 U	5.0 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	50 U [50 U]	NA	50 U	50 U	NA	50 UJ	NA
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	50 U [50 U]	NA	R	50 U	NA	50 UJ	NA
3-Chloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U [50 U]	NA	50 U	50 U	NA	50 UJ	NA
Acetone	ug/L	100 U [100 U]	NA	4.7 J	50 U	NA	50 UJ	NA
Acetonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	5.0 U [5.0 U]	NA	1.0 U	1.0 U	NA	1.0 U	NA
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1.0 U [1.0 U]	NA	1.0 U	1.0 U	NA	1.0 U	NA
Bromoform	ug/L	1.0 U [1.0 U]	NA	1.0 U	1.0 U	NA	1.0 U	NA
Bromomethane	ug/L	1.0 U [1.0 U]	NA	1.0 U	1.0 U	NA	1.0 U	NA
Carbon Disulfide	ug/L	50 U [50 U]	NA	50 U	50 U	NA	50 U	NA
Carbon Tetrachloride	ug/L	1.0 U [1.0 U]	NA	1.0 U	1.0 U	NA	1.0 U	NA
Chlorobenzene	ug/L	1.0 U [1.0 U]	NA	1.0 U	1.0 U	NA	1.0 U	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Green Point Landfill X-17R 2 - 12 06/04/96	Green Point Landfill X-17R 2 - 12 05/18/00	Green Point Landfill X-18R 4.2 - 7.2 07/25/95	Green Point Landfill X-19AR 2 - 12 07/28/95	Green Point Landfill X-19AR 2 - 12 06/04/96	LNAPL Assessment Area MW-132S1 22 - 27 07/21/95	LNAPL Assessment Area MW-132S1 22 - 27 06/07/96
Volatile Organics (Cont'd.)								
Chloroethane	ug/L	1.0 U [1.0 U]	NA	1.0 U	1.0 U	NA	1.0 U	NA
Chloroform	ug/L	1.0 U [1.0 U]	NA	1.0 U	1.0 U	NA	1.0 U	NA
Chloromethane	ug/L	1.0 U [1.0 U]	NA	1.0 U	1.0 U	NA	1.0 UJ	NA
cis-1,2-Dichloroethene	ug/L	1.0 U [1.0 U]	NA	1.0 U	1.0 U	NA	1.0 U	NA
cis-1,3-Dichloropropene	ug/L	1.0 U [1.0 U]	NA	1.0 U	1.0 U	NA	1.0 U	NA
Cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	1.0 U [1.0 U]	NA	1.0 U	1.0 U	NA	1.0 U	NA
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1.0 U [1.0 U]	NA	1.0 U	1.0 U	NA	1.0 U	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	5.0 U [5.0 U]	NA	1.0 U	1.0 U	NA	1.0 U	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1.0 U [1.0 U]	NA	1.0 U	1.0 U	NA	1.0 U	NA
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1.0 U [1.0 U]	NA	1.0 U	1.0 U	NA	1.0 U	NA
Toluene	ug/L	1.0 U [1.0 U]	NA	1.0 U	1.0 U	NA	1.0 U	NA
trans-1,2-Dichloroethene	ug/L	1.0 U [1.0 U]	NA	1.0 U	1.0 U	NA	1.0 U	NA
trans-1,3-Dichloropropene	ug/L	1.0 U [1.0 U]	NA	1.0 UJ	1.0 U	NA	1.0 U	NA
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1.0 U [1.0 U]	NA	1.0 U	1.0 U	NA	1.0 U	NA
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	1.0 U [1.0 U]	NA	1.0 U	1.0 U	NA	1.0 U	NA
Total 1,3-Dichloropropenes	ug/L	1.0 U [1.0 U]	NA	1.0 U	1.0 U	NA	1.0 U	NA
Total Xylenes	ug/L	3.0 U [3.0 U]	NA	3.0 U	3.0 U	NA	3.0 U	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Green Point Landfill X-17R 2 - 12 06/04/96	Green Point Landfill X-17R 2 - 12 05/18/00	Green Point Landfill X-18R 4.2 - 7.2 07/25/95	Green Point Landfill X-19AR 2 - 12 07/28/95	Green Point Landfill X-19AR 2 - 12 06/04/96	LNAPL Assessment Area MW-132S1 22 - 27 07/21/95	LNAPL Assessment Area MW-132S1 22 - 27 06/07/96
Semivolatile Organics								
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5.0 U [5.0 U]	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	1.0 U	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	1.0 U	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	1.0 U	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	5.0 U [5.0 U]	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	50 U [50 U]	5.0 U	NA	50 U	50 U	50 U	50 U
2,4,6-Trichlorophenol	ug/L	5.0 U [5.0 U]	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dichlorophenol	ug/L	5.0 U [5.0 U]	10 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dimethylphenol	ug/L	5.0 U [5.0 U]	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dinitrophenol	ug/L	20 UJ [20 UJ]	20 U	NA	20 U	20 UJ	20 U	20 U
2,4-Dinitrotoluene	ug/L	5.0 U [5.0 U]	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	5.0 U [5.0 U]	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	5.0 U [5.0 U]	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
2-Chlorophenol	ug/L	5.0 U [5.0 U]	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
2-Methylnaphthalene	ug/L	5.0 U [5.0 U]	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
2-Methylphenol	ug/L	5.0 U [5.0 U]	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	20 U [20 U]	20 U	NA	20 U	20 U	20 U	20 U
2-Nitrophenol	ug/L	5.0 U [5.0 U]	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
2-Picoline	ug/L	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	20 U [20 U]	20 U	NA	20 U	20 U	20 U	20 U
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	20 U [20 U]	20 U	NA	20 U	20 U	20 U	20 U
4,6-Dinitro-2-methylphenol	ug/L	20 U [20 U]	20 U	NA	20 U	20 U	20 U	20 U
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	5.0 U [5.0 U]	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloro-3-Methylphenol	ug/L	5.0 U [5.0 U]	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloroaniline	ug/L	20 U [20 U]	10 U	NA	20 U	20 U	20 U	20 U
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	5.0 U [5.0 U]	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
4-Methylphenol	ug/L	5.0 U [5.0 U]	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Green Point Landfill X-17R 2 - 12 06/04/96	Green Point Landfill X-17R 2 - 12 05/18/00	Green Point Landfill X-18R 4.2 - 7.2 07/25/95	Green Point Landfill X-19AR 2 - 12 07/28/95	Green Point Landfill X-19AR 2 - 12 06/04/96	LNAPL Assessment Area MW-132S1 22 - 27 07/21/95	LNAPL Assessment Area MW-132S1 22 - 27 06/07/96
Semivolatile Organics (Cont'd.)								
4-Nitroaniline	ug/L	20 U [20 U]	20 U	NA	20 U	20 U	20 U	20 U
4-Nitrophenol	ug/L	20 U [20 U]	20 U	NA	20 U	20 U	20 U	20 UJ
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	5.0 U [5.0 U]	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
Acenaphthylene	ug/L	5.0 U [5.0 U]	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	5.0 U [5.0 U]	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	5.0 U [5.0 U]	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(a)pyrene	ug/L	5.0 U [5.0 U]	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(b)fluoranthene	ug/L	5.0 U [5.0 U]	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(g,h,i)perylene	ug/L	5.0 U [5.0 U]	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(k)fluoranthene	ug/L	5.0 U [5.0 U]	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	5.0 U [5.0 U]	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Chloroethyl)ether	ug/L	5.0 U [5.0 U]	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Ethylhexyl)phthalate	ug/L	7.5 J [5.0 UJ]	5.0 U	NA	0.54 J	5.0 UJ	1.0 U	5.0 U
Butylbenzylphthalate	ug/L	5.0 U [5.0 U]	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	10 U [10 U]	10 U	NA	10 U	10 U	10 U	10 U
Chrysene	ug/L	5.0 U [5.0 U]	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
Diallate	ug/L	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	5.0 U [5.0 U]	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
Dibenzofuran	ug/L	5.0 U [5.0 U]	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
Diethylphthalate	ug/L	5.0 U [5.0 U]	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
Dimethylphthalate	ug/L	5.0 U [5.0 U]	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
Di-n-Butylphthalate	ug/L	5.0 U [5.0 U]	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
Di-n-Octylphthalate	ug/L	5.0 U [5.0 U]	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
Diphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	5.0 U [5.0 U]	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
Fluorene	ug/L	5.0 U [5.0 U]	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobenzene	ug/L	5.0 U [5.0 U]	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobutadiene	ug/L	5.0 U [5.0 U]	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorocyclopentadiene	ug/L	5.0 U [5.0 U]	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
Hexachloroethane	ug/L	2.0 U [2.0 U]	5.0 U	NA	5.0 U	2.0 U	5.0 U	2.0 U
Hexachloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	5.0 U [5.0 U]	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

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Semivolatile Organics (Cont'd.)								
Isophorone	ug/L	5.0 U [5.0 U]	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
Isosafrole	ug/L	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	5.0 U [5.0 U]	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
Nitrobenzene	ug/L	5.0 U [5.0 U]	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	5.0 U [5.0 U]	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosodiphenylamine	ug/L	5.0 U [5.0 U]	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	25 U [25 U]	1.0 U	NA	25 U	25 U	25 U	25 U
Phenacetin	ug/L	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	5.0 U [5.0 U]	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
Phenol	ug/L	5.0 U [5.0 U]	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
Pronamide	ug/L	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	5.0 U [5.0 U]	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	5.0 U [5.0 U]	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
PCBs								
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA
PCBs-Dissolved								
Aroclor-1016 (Dissolved)	ug/L	0.2 U [0.2 U]	NA	NA	0.2 U	NA	0.2 U	0.2 U
Aroclor-1221 (Dissolved)	ug/L	0.2 U [0.2 U]	NA	NA	0.2 U	NA	0.2 U	0.2 U
Aroclor-1232 (Dissolved)	ug/L	0.4 U [0.4 U]	NA	NA	0.4 U	NA	0.4 U	0.4 U
Aroclor-1242 (Dissolved)	ug/L	0.2 U [0.2 U]	NA	NA	0.2 U	NA	0.2 U	0.2 U

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SAGINAW, MICHIGAN

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PCBs-Dissolved (Cont'd.)								
Aroclor-1248 (Dissolved)	ug/L	0.2 U [0.2 U]	NA	NA	0.2 U	NA	0.2 U	0.2 U
Aroclor-1254 (Dissolved)	ug/L	0.2 U [0.2 U]	NA	NA	0.2 U	NA	0.2 U	0.2 U
Aroclor-1260 (Dissolved)	ug/L	0.2 U [0.2 U]	NA	NA	0.2 U	NA	0.2 U	0.2 U
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	0.4 U [0.4 U]	NA	NA	0.4 U	NA	0.4 U	0.4 U
Organochlorine Pesticides								
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	0.2 U [0.2 U]	NA	NA	0.2 U	NA	0.2 U	0.2 U
Aroclor-1221	ug/L	0.2 U [0.2 U]	NA	NA	0.2 U	NA	0.2 U	0.2 U
Aroclor-1232	ug/L	0.4 U [0.4 U]	NA	NA	0.4 U	NA	0.4 U	0.4 U
Aroclor-1242	ug/L	0.2 U [0.2 U]	NA	NA	0.2 U	NA	0.2 U	0.2 U
Aroclor-1248	ug/L	0.2 U [0.2 U]	NA	NA	0.2 U	NA	0.2 U	0.2 U
Aroclor-1254	ug/L	0.2 U [0.2 U]	NA	NA	0.2 U	NA	0.2 U	0.2 U
Aroclor-1260	ug/L	0.2 U [0.2 U]	NA	NA	0.2 U	NA	0.2 U	0.2 U
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA
Organophosphate Pesticides								
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

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Organophosphate Pesticides (Cont'd.)								
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA
Herbicides								
2,4,5-T	ug/L	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans								
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA

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Dioxins/Furans (Cont'd.)								
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA	NA

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Volatile Organics							
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1.0 U	NA	2.5 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	NA	2.5 U	1.0 U	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	1.0 U	NA	2.5 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	NA	2.5 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	1.0 U	NA	2.5 U	1.0 U	1.0 U	1.0 U
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	1.0 U	5.0 U	2.5 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	1.0 U	NA	2.5 UJ	1.0 U	1.0 U	1.0 U
1,2-Dichloroethene (total)	ug/L	1.0 U	NA	2.5 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	NA	2.5 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1.0 U	5.0 U	2.5 U	1.0 U	1.0 U	1.0 U
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	1.0 U	5.0 U	2.5 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	50 UJ	NA	120 U	50 U	50 U	50 U
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	50 U	NA	120 U	50 U	50 U	50 U
3-Chloropropene	ug/L	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U	NA	120 U	50 U	50 U	50 U
Acetone	ug/L	50 UJ	NA	23 J	50 U	50 U	100 U
Acetonitrile	ug/L	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA
Benzene	ug/L	1.0 U	NA	4.4	1.0 U	1.0 U	5.0 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1.0 U	NA	2.5 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	1.0 U	NA	2.5 U	1.0 U	1.0 U	1.0 U
Bromomethane	ug/L	1.0 U	NA	2.5 U	1.0 U	1.0 U	1.0 U
Carbon Disulfide	ug/L	50 U	NA	120 UJ	50 U	50 U	50 U
Carbon Tetrachloride	ug/L	1.0 U	NA	2.5 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	1.0 U	NA	2.5 U	1.0 U	1.0 U	1.0 U

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TABLE A-1
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SAGINAW, MICHIGAN

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Volatile Organics (Cont'd.)							
Chloroethane	ug/L	1.0 U	NA	2.5 U	1.0 U	1.0 U	1.0 U
Chloroform	ug/L	1.0 U	NA	2.5 U	1.0 U	1.0 U	1.0 U
Chloromethane	ug/L	1.0 U	NA	2.5 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U	NA	2.5 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	1.0 U	NA	2.5 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	1.0 U	NA	2.5 U	1.0 U	1.0 U	1.0 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1.0 U	NA	2.5 U	1.0 U	1.0 U	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	1.0 U	NA	2.5 U	1.0 U	1.0 U	5.0 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1.0 U	NA	2.5 U	1.0 U	1.0 U	1.0 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1.0 U	NA	2.5 U	1.0 U	1.0 U	1.0 U
Toluene	ug/L	1.0 U	NA	2.5 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U	NA	2.5 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 U	NA	2.5 U	1.0 U	1.0 U	1.0 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1.0 U	NA	2.5 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	1.0 U	NA	2.5 U	1.0 U	1.0 U	1.0 U
Total 1,3-Dichloropropenes	ug/L	1.0 U	NA	2.5 U	1.0 U	1.0 U	1.0 U
Total Xylenes	ug/L	3.0 U	NA	63	3.0 U	3.0 U	3.0 U

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Semivolatile Organics							
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	50 U	50 U	500 U	50 U	50 U	50 U
2,4,6-Trichlorophenol	ug/L	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U
2,4-Dichlorophenol	ug/L	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U
2,4-Dimethylphenol	ug/L	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U
2,4-Dinitrophenol	ug/L	20 U	20 U	200 U	20 U	20 U	20 U
2,4-Dinitrotoluene	ug/L	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U
2-Chlorophenol	ug/L	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U
2-Methylnaphthalene	ug/L	5.0 U	5.0 U	20 J	5.0 U	5.0 U	5.0 U
2-Methylphenol	ug/L	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	20 U	20 U	200 U	20 U	20 U	20 U
2-Nitrophenol	ug/L	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U
2-Picoline	ug/L	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	20 U	20 U	200 U	20 U	20 U	20 U
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	20 U	20 U	200 U	20 U	20 U	20 U
4,6-Dinitro-2-methylphenol	ug/L	20 U	20 U	200 U	20 U	20 U	20 U
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U
4-Chloro-3-Methylphenol	ug/L	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U
4-Chloroaniline	ug/L	20 U	20 U	200 U	20 U	20 U	20 U
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U
4-Methylphenol	ug/L	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U

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Semivolatile Organics (Cont'd.)							
4-Nitroaniline	ug/L	20 U	20 U	200 U	20 U	20 U	20 U
4-Nitrophenol	ug/L	20 U	20 UJ	200 U	20 U	20 U	20 U
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U
Acenaphthylene	ug/L	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U
Atrazine	ug/L	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U
Benzo(a)pyrene	ug/L	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U
Benzo(b)fluoranthene	ug/L	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U
Benzo(g,h,i)perylene	ug/L	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 UJ
Benzo(k)fluoranthene	ug/L	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U
bis(2-Chloroethyl)ether	ug/L	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U
bis(2-Ethylhexyl)phthalate	ug/L	5.0 U	5.0 U	50 U	1.3 J	1.8 J	5.0 U
Butylbenzylphthalate	ug/L	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	10 U	10 U	100 U	10 U	10 U	10 U
Chrysene	ug/L	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U
Diallate	ug/L	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 UJ
Dibenzofuran	ug/L	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U
Diethylphthalate	ug/L	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U
Dimethylphthalate	ug/L	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U
Di-n-Butylphthalate	ug/L	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U
Di-n-Octylphthalate	ug/L	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U
Diphenylamine	ug/L	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U
Fluorene	ug/L	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U
Hexachlorobenzene	ug/L	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U
Hexachlorobutadiene	ug/L	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U
Hexachlorocyclopentadiene	ug/L	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U
Hexachloroethane	ug/L	5.0 U	2.0 U	50 U	5.0 U	5.0 U	2.0 U
Hexachloropropene	ug/L	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 UJ

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Semivolatile Organics (Cont'd.)							
Isophorone	ug/L	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U
Isosafrole	ug/L	NA	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U
Nitrobenzene	ug/L	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U
N-Nitrosodiphenylamine	ug/L	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	25 U	25 U	250 U	25 U	25 U	25 U
Phenacetin	ug/L	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U
Phenol	ug/L	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U
Pronamide	ug/L	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U
Pyridine	ug/L	NA	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U
PCBs							
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA
PCBs-Dissolved							
Aroclor-1016 (Dissolved)	ug/L	0.2 U	0.2 U	0.22 U	0.2 U	0.2 U	0.2 U
Aroclor-1221 (Dissolved)	ug/L	0.2 U	0.2 U	0.22 U	0.2 U	0.2 U	0.2 U
Aroclor-1232 (Dissolved)	ug/L	0.4 U	0.4 U	0.44 U	0.4 U	0.4 U	0.4 U
Aroclor-1242 (Dissolved)	ug/L	0.2 U	0.2 U	0.22 U	0.2 U	0.2 U	0.2 U

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PCBs-Dissolved (Cont'd.)							
Aroclor-1248 (Dissolved)	ug/L	0.2 U	0.2 U	0.22 U	0.2 UJ	0.2 U	0.2 U
Aroclor-1254 (Dissolved)	ug/L	0.2 U	0.2 U	0.22 U	0.2 U	0.2 U	0.2 U
Aroclor-1260 (Dissolved)	ug/L	0.2 U	0.2 U	0.22 U	0.2 U	0.2 U	0.2 U
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	0.4 U	0.4 U	0.44 U	0.4 U	0.4 U	0.4 U
Organochlorine Pesticides							
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	0.2 U	0.2 U	400 U	0.2 U	0.2 U	0.2 U
Aroclor-1221	ug/L	0.2 U	0.2 U	400 U	0.2 U	0.2 U	0.2 U
Aroclor-1232	ug/L	0.4 U	0.4 U	800 U	0.4 U	0.4 U	0.4 U
Aroclor-1242	ug/L	0.2 U	0.2 U	400 U	0.2 U	0.2 U	0.2 U
Aroclor-1248	ug/L	0.2 U	0.2 U	610	0.2 U	0.2 U	0.2 U
Aroclor-1254	ug/L	0.2 U	0.2 U	400 U	0.2 U	0.2 U	0.2 U
Aroclor-1260	ug/L	0.2 U	0.2 U	910	0.2 U	0.2 U	0.2 U
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA
Organophosphate Pesticides							
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	LNAPL Assessment Area MW-132WT 4 - 14 07/21/95	LNAPL Assessment Area MW-132WT 4 - 14 06/06/96	LNAPL Assessment Area MW-147WT 5 - 15 07/30/95	LNAPL Assessment Area MW-151WT 6 - 16 10/20/95	LNAPL Assessment Area MW-152WT 6 - 16 10/20/95	LNAPL Assessment Area MW-152WT 6 - 16 06/05/96
Organophosphate Pesticides (Cont'd.)							
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA
Herbicides							
2,4,5-T	ug/L	NA	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA	NA
Dioxins/Furans							
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

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Dioxins/Furans (Cont'd.)							
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	LNAPL Assessment Area MW-153WT 6 - 16 10/20/95	LNAPL Assessment Area MW-154WT 6 - 16 10/19/95	LNAPL Assessment Area MW-154WT 6 - 16 06/13/96	LNAPL Assessment Area MW-155WT 6 - 16 10/19/95	LNAPL Assessment Area MW-156WT 6 - 16 10/20/95	LNAPL Assessment Area MW-156WT 6 - 16 06/07/96
Volatile Organics							
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	6.2 U [7.1 U]	10 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	6.2 U [7.1 U]	10 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	6.2 U [7.1 U]	10 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	6.2 U [7.1 U]	10 U
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	6.2 U [7.1 U]	7.5 J
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	6.2 U [7.1 U]	5.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	6.2 U [7.1 U]	10 U
1,2-Dichloroethene (total)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	190 [200]	290
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	6.2 U [7.1 U]	10 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	6.2 U [7.1 U]	5.0 U
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	6.2 U [7.1 U]	5.0 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	50 U	50 U	50 U	50 U	310 U [360 U]	500 U
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	50 U	50 U	50 U	50 U	310 U [360 U]	500 U
3-Chloropropene	ug/L	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U	50 U	50 U	50 U	310 U [360 U]	500 U
Acetone	ug/L	50 U	10 J	13 J	50 U	310 U [360 U]	1,000 U
Acetonitrile	ug/L	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA
Benzene	ug/L	1.0 U	1.0 U	0.62 J	1.0 U	6.2 U [7.1 U]	50 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	6.2 U [7.1 U]	10 U
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	6.2 U [7.1 U]	10 U
Bromomethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	6.2 U [7.1 U]	10 U
Carbon Disulfide	ug/L	50 U	50 U	50 U	50 U	310 U [7.1 U]	500 U
Carbon Tetrachloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	6.2 U [7.1 U]	10 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	6.2 U [7.1 U]	10 U

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ORGANIC COMPOUNDS

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SAGINAW, MICHIGAN

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Volatile Organics (Cont'd.)							
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	6.2 U [7.1 U]	10 U
Chloroform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	6.2 U [7.1 U]	10 U
Chloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	6.2 U [7.1 U]	10 U
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	190 [200]	290
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	6.2 U [7.1 U]	10 U
Cyclohexane	ug/L	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	6.2 U [7.1 U]	10 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	6.2 U [7.1 U]	10 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	6.2 U [7.1 U]	5.0 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	6.2 U [7.1 U]	10 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	6.2 U [7.1 U]	10 U
Toluene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	6.2 U [7.1 U]	10 U
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	6.2 U [7.1 U]	10 U
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	6.2 U [7.1 U]	10 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	32 [35]	88
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	1.0 U	1.0 U	3.0 U	1.0 U	94 [110]	130
Total 1,3-Dichloropropenes	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	6.2 U [7.1 U]	10 U
Total Xylenes	ug/L	3.0 U	3.0 U	1.1 J	3.0 U	19 U [21 U]	30 U

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Semivolatile Organics							
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	50 U	50 U	50 U	50 U	50 U [50 U]	50 U
2,4,6-Trichlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
2,4-Dichlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
2,4-Dimethylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
2,4-Dinitrophenol	ug/L	20 U	20 U	20 U	20 U	20 U [20 U]	20 U
2,4-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
2-Chlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
2-Methylnaphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
2-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	20 U	20 U	20 U	20 U	20 U [20 U]	20 U
2-Nitrophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
2-Picoline	ug/L	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	20 U	20 U	20 U	20 U	20 U [20 U]	20 U
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	20 U	20 U	20 U	20 U	20 U [20 U]	20 U
4,6-Dinitro-2-methylphenol	ug/L	20 U	20 U	20 U	20 U	20 U [20 U]	20 U
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
4-Chloro-3-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
4-Chloroaniline	ug/L	20 U	20 U	20 U	20 U	20 U [20 U]	20 U
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
4-Methylphenol	ug/L	5.0 U	3.8 J	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U

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TABLE A-1
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ORGANIC COMPOUNDS

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SAGINAW, MICHIGAN

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Semivolatile Organics (Cont'd.)							
4-Nitroaniline	ug/L	20 U	20 U	20 U	20 U	20 U [20 U]	20 U
4-Nitrophenol	ug/L	20 U	4.1 J	20 U	20 U	20 U [20 U]	20 U
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
Acenaphthylene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
Atrazine	ug/L	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
Benzo(a)pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
Benzo(b)fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
Benzo(g,h,i)perylene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
Benzo(k)fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
bis(2-Chloroethyl)ether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
bis(2-Ethylhexyl)phthalate	ug/L	5.0 U	5.0 U	5.0 U	0.82 J	1.2 J [8.7]	8.0 U
Butylbenzylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	10 U	10 U	10 U	10 U	10 U [10 U]	10 U
Chrysene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
Diallate	ug/L	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
Dibenzofuran	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
Diethylphthalate	ug/L	5.0 U	3.1 J	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
Dimethylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
Di-n-Butylphthalate	ug/L	1.4 J	5.0 U	5.0 U	5.0 U	1.2 J [5.0 U]	5.0 U
Di-n-Octylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
Diphenylamine	ug/L	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
Fluorene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
Hexachlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
Hexachlorobutadiene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
Hexachlorocyclopentadiene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
Hexachloroethane	ug/L	5.0 U	5.0 U	2.0 U	5.0 U	5.0 U [5.0 U]	2.0 U
Hexachloropropene	ug/L	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U

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TABLE A-1
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SAGINAW, MICHIGAN

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Semivolatile Organics (Cont'd.)							
Isophorone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
Isosafrole	ug/L	NA	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
Nitrobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
N-Nitrosodiphenylamine	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	25 U	2.7 J	25 U	25 U	25 U [25 U]	25 U
Phenacetin	ug/L	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
Phenol	ug/L	5.0 U	12	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
Pronamide	ug/L	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
Pyridine	ug/L	NA	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
PCBs							
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA
PCBs-Dissolved							
Aroclor-1016 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	NA
Aroclor-1221 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	NA
Aroclor-1232 (Dissolved)	ug/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U [0.4 U]	NA
Aroclor-1242 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	NA

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PCBs-Dissolved (Cont'd.)							
Aroclor-1248 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	NA
Aroclor-1254 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	NA
Aroclor-1260 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	NA
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U [0.4 U]	NA
Organochlorine Pesticides							
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	NA
Aroclor-1221	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	NA
Aroclor-1232	ug/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U [0.4 U]	NA
Aroclor-1242	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	NA
Aroclor-1248	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	NA
Aroclor-1254	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	NA
Aroclor-1260	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA
Organophosphate Pesticides							
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA

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Organophosphate Pesticides (Cont'd.)							
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA
Herbicides							
2,4,5-T	ug/L	NA	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA	NA
Dioxins/Furans							
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	0.0000072 U	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	0.000022 U	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	0.0000032 U	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	0.00001 U	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	0.0000014 U	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	0.0000028 U	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	0.0000018 U	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	0.0000023 U	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	0.00000053 U	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	0.0000027 U	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	0.0000007 U	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	0.000001 U	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	0.0000019 U	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	0.0000026 U	NA	NA	NA

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Dioxins/Furans (Cont'd.)							
2,3,4,7,8-PeCDF	ug/L	NA	NA	0.0000016 U	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	0.0000014 U	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	0.0000034 U	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	0.00001 U	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	0.0000032 U	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	0.0000032 U	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	0.0000028 U	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	0.0000021 U	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	0.000001 U	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	0.0000034 U	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	0.0000014 U	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	LNAPL Assessment Area MW-170WT 6.2 - 15.7 08/05/98	LNAPL Assessment Area TW-239WT 02/02/95	Northern Drainage Channels B-5BAUG 35 - 40 07/12/95	Northern Drainage Channels B-5CAUG 42.5 - 47.5 07/12/95	Northern Drainage Channels B-5R 5 - 15 07/12/95	Northern Drainage Channels MW-5A 5 - 15 07/13/95
Volatile Organics							
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	1.0 U	NA
1,1,1-Trichloroethane	ug/L	NA	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	NA	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	NA	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	NA	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	NA	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	1.0 U	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	R	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	1.0 U	NA
1,2-Dichlorobenzene	ug/L	NA	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	NA	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
1,2-Dichloroethene (total)	ug/L	NA	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	NA	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	R	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	NA	250 U	50 U [50 U]	50 U	5.0 UJ	50 U
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	1.0 U	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	NA	R	50 UJ [50 UJ]	50 UJ	5.0 U	R
3-Chloropropene	ug/L	NA	NA	NA	NA	2.0 U	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	NA	250 U	50 U [50 U]	50 U	5.0 U	50 U
Acetone	ug/L	NA	10 J	50 U [50 U]	50 U	10 UJ	50 U
Acetonitrile	ug/L	NA	NA	NA	NA	10 U	NA
Acrolein	ug/L	NA	NA	NA	NA	R	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	10 U	NA
Benzene	ug/L	NA	5.2	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	NA	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	NA	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Bromomethane	ug/L	NA	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Carbon Disulfide	ug/L	NA	250 U	50 U [50 U]	50 U	1.0 U	50 U
Carbon Tetrachloride	ug/L	NA	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	NA	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U

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TABLE A-1
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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
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SAGINAW, MICHIGAN

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Volatile Organics (Cont'd.)							
Chloroethane	ug/L	NA	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Chloroform	ug/L	NA	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Chloromethane	ug/L	NA	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	NA	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	NA	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	NA	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Dibromomethane	ug/L	NA	NA	NA	NA	1.0 U	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	1.0 U	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	1.0 U	NA
Ethylbenzene	ug/L	NA	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	1.0 U	NA
Isobutanol	ug/L	NA	NA	NA	NA	R	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	1.0 U	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	1.0 U	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	NA	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	R	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA
Styrene	ug/L	NA	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	NA	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Toluene	ug/L	NA	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	NA	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	NA	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	1.0 U	NA
Trichloroethene	ug/L	NA	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	1.0 U	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	2.0 U	NA
Vinyl Chloride	ug/L	NA	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Total 1,3-Dichloropropenes	ug/L	NA	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Total Xylenes	ug/L	NA	57	3.0 U [3.0 U]	3.0 U	1.0 U	3.0 U

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TABLE A-1
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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
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SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	LNAPL Assessment Area MW-170WT 6.2 - 15.7 08/05/98	LNAPL Assessment Area TW-239WT 02/02/95	Northern Drainage Channels B-5BAUG 35 - 40 07/12/95	Northern Drainage Channels B-5CAUG 42.5 - 47.5 07/12/95	Northern Drainage Channels B-5R 5 - 15 07/12/95	Northern Drainage Channels MW-5A 5 - 15 07/13/95
Semivolatile Organics							
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	5.0 U	NA
1,2,4-Trichlorobenzene	ug/L	NA	50 U	5.0 U [5.0 U]	5.0 U	50 U	5.0 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	R	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	5.0 U	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	50 U	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	10 U	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	NA	50 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	50 U	NA
2,4,5-Trichlorophenol	ug/L	NA	500 U	50 U [50 U]	50 U	10 U	50 U
2,4,6-Trichlorophenol	ug/L	NA	50 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
2,4-Dichlorophenol	ug/L	NA	50 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
2,4-Dimethylphenol	ug/L	NA	50 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
2,4-Dinitrophenol	ug/L	NA	200 U	20 U [20 U]	20 U	20 U	20 U
2,4-Dinitrotoluene	ug/L	NA	50 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	5.0 U	NA
2,6-Dinitrotoluene	ug/L	NA	50 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	100 U	NA
2-Chloronaphthalene	ug/L	NA	50 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
2-Chlorophenol	ug/L	NA	50 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
2-Methylnaphthalene	ug/L	NA	18 J	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
2-Methylphenol	ug/L	NA	50 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
2-Naphthylamine	ug/L	NA	NA	NA	NA	10 U	NA
2-Nitroaniline	ug/L	NA	200 U	20 U [20 U]	20 U	20 U	20 U
2-Nitrophenol	ug/L	NA	50 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
2-Picoline	ug/L	NA	NA	NA	NA	20 U	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	200 U	20 U [20 U]	20 U	20 U	20 U
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	10 U	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	20 U	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	5.0 U	NA
3-Nitroaniline	ug/L	NA	200 U	20 U [20 U]	20 U	20 U	20 U
4,6-Dinitro-2-methylphenol	ug/L	NA	200 U	20 U [20 U]	20 U	20 U	20 U
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	50 U	NA
4-Bromophenyl-phenylether	ug/L	NA	50 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
4-Chloro-3-Methylphenol	ug/L	NA	50 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
4-Chloroaniline	ug/L	NA	200 U	20 U [20 U]	20 U	10 U	20 U
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	10 U	NA
4-Chlorophenyl-phenylether	ug/L	NA	50 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
4-Methylphenol	ug/L	NA	50 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U

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ORGANIC COMPOUNDS

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SAGINAW, MICHIGAN

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Semivolatile Organics (Cont'd.)							
4-Nitroaniline	ug/L	NA	200 U	20 U [20 U]	20 U	20 UJ	20 U
4-Nitrophenol	ug/L	NA	200 U	20 U [20 U]	20 U	20 U	20 U
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	100 UJ	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	100 UJ	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	20 U	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	20 U	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	50 UJ	NA
Acenaphthene	ug/L	NA	50 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Acenaphthylene	ug/L	NA	50 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Acetophenone	ug/L	NA	NA	NA	NA	10 U	NA
Aniline	ug/L	NA	NA	NA	NA	10 U	NA
Anthracene	ug/L	NA	50 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Atrazine	ug/L	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	50 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Benzo(a)pyrene	ug/L	NA	50 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Benzo(b)fluoranthene	ug/L	NA	50 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Benzo(g,h,i)perylene	ug/L	NA	50 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Benzo(k)fluoranthene	ug/L	NA	50 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Benzyl Alcohol	ug/L	NA	NA	NA	NA	10 U	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	50 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
bis(2-Chloroethyl)ether	ug/L	NA	50 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
bis(2-Ethylhexyl)phthalate	ug/L	NA	50 U	2.2 J [5.0 U]	5.0 U	5.0 U	5.0 U
Butylbenzylphthalate	ug/L	NA	50 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	50 U	10 U [10 U]	10 U	NA	10 U
Chrysene	ug/L	NA	50 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Diallate	ug/L	NA	NA	NA	NA	5.0 U	NA
Dibenzo(a,h)anthracene	ug/L	NA	50 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Dibenzofuran	ug/L	NA	50 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Diethylphthalate	ug/L	NA	50 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Dimethylphthalate	ug/L	NA	50 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Di-n-Butylphthalate	ug/L	NA	50 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Di-n-Octylphthalate	ug/L	NA	50 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Diphenylamine	ug/L	NA	NA	NA	NA	5.0 U	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	10 U	NA
Fluoranthene	ug/L	NA	5.2 J	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Fluorene	ug/L	NA	50 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Hexachlorobenzene	ug/L	NA	50 U	5.0 UJ [5.0 UJ]	5.0 U	5.0 U	5.0 U
Hexachlorobutadiene	ug/L	NA	50 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Hexachlorocyclopentadiene	ug/L	NA	50 U	5.0 U [5.0 U]	5.0 U	5.0 UJ	5.0 U
Hexachloroethane	ug/L	NA	50 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Hexachloropropene	ug/L	NA	NA	NA	NA	100 U	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	50 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U

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Semivolatile Organics (Cont'd.)							
Isophorone	ug/L	NA	50 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Isosafrole	ug/L	NA	NA	NA	NA	20 U	NA
Methapyrilene	ug/L	NA	NA	NA	NA	50 U	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	10 U	NA
Naphthalene	ug/L	NA	12 J	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Nitrobenzene	ug/L	NA	50 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	10 U	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	5.0 U	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	10 U	NA
N-Nitroso-di-n-propylamine	ug/L	NA	50 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
N-Nitrosodiphenylamine	ug/L	NA	50 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	10 U	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	10 U	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	10 U	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	10 U	NA
o-Toluidine	ug/L	NA	NA	NA	NA	20 U	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	20 U	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	5.0 U	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	10 U	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	50 U	NA
Pentachlorophenol	ug/L	NA	200 U	20 U [20 U]	20 U	25 U	25 U
Phenacetin	ug/L	NA	NA	NA	NA	20 U	NA
Phenanthrene	ug/L	NA	9.4 J	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Phenol	ug/L	NA	50 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Pronamide	ug/L	NA	NA	NA	NA	20 U	NA
Pyrene	ug/L	NA	5.2 J	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Pyridine	ug/L	NA	NA	NA	NA	10 U	NA
Safrole	ug/L	NA	NA	NA	NA	20 U	NA
Total Methylphenols	ug/L	NA	50 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
PCBs							
Aroclor-1016	ug/L	100 U	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	100 U	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	100 U	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	460	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	100 U	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	100 U	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	160	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	620	NA	NA	NA	NA	NA
PCBs-Dissolved							
Aroclor-1016 (Dissolved)	ug/L	NA	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	R
Aroclor-1221 (Dissolved)	ug/L	NA	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	R
Aroclor-1232 (Dissolved)	ug/L	NA	0.4 U	0.4 U [0.4 U]	0.4 U	0.4 U	R
Aroclor-1242 (Dissolved)	ug/L	NA	0.27	0.2 U [0.2 U]	0.2 U	0.2 U	R

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	LNAPL Assessment Area MW-170WT 6.2 - 15.7 08/05/98	LNAPL Assessment Area TW-239WT 02/02/95	Northern Drainage Channels B-5BAUG 35 - 40 07/12/95	Northern Drainage Channels B-5CAUG 42.5 - 47.5 07/12/95	Northern Drainage Channels B-5R 5 - 15 07/12/95	Northern Drainage Channels MW-5A 5 - 15 07/13/95
PCBs-Dissolved (Cont'd.)							
Aroclor-1248 (Dissolved)	ug/L	NA	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	R
Aroclor-1254 (Dissolved)	ug/L	NA	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	R
Aroclor-1260 (Dissolved)	ug/L	NA	0.25	0.2 U [0.2 U]	0.2 U	0.2 U	R
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	0.52	0.4 U [0.4 U]	0.4 U	0.4 U	R
Organochlorine Pesticides							
4,4'-DDD	ug/L	NA	NA	NA	NA	0.02 U	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	0.02 U	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	0.02 UJ	NA
Aldrin	ug/L	NA	NA	NA	NA	0.01 U	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	0.01 UJ	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	0.05 UJ	NA
Aroclor-1016	ug/L	NA	10 U	0.2 U [0.2 U]	0.2 U	0.2 UJ	R
Aroclor-1221	ug/L	NA	11 U	0.2 U [0.2 U]	0.2 U	0.2 UJ	R
Aroclor-1232	ug/L	NA	10 U	0.4 U [0.4 U]	0.4 U	0.4 U	R
Aroclor-1242	ug/L	NA	58	0.2 U [0.2 U]	0.2 U	0.2 U	R
Aroclor-1248	ug/L	NA	10 U	0.2 U [0.2 U]	0.2 U	0.2 U	R
Aroclor-1254	ug/L	NA	20 U	0.2 U [0.2 U]	0.2 U	0.2 U	R
Aroclor-1260	ug/L	NA	200	0.2 U [0.2 U]	0.2 U	0.2 U	R
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	0.01 UJ	NA
Delta-BHC	ug/L	NA	NA	NA	NA	0.01 UJ	NA
Dieldrin	ug/L	NA	NA	NA	NA	0.02 UJ	NA
Endosulfan I	ug/L	NA	NA	NA	NA	0.01 UJ	NA
Endosulfan II	ug/L	NA	NA	NA	NA	0.02 UJ	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	0.02 UJ	NA
Endrin	ug/L	NA	NA	NA	NA	0.02 UJ	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	0.02 U	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	0.01 UJ	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	0.05 UJ	NA
Heptachlor	ug/L	NA	NA	NA	NA	0.01 UJ	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	0.01 UJ	NA
Isodrin	ug/L	NA	NA	NA	NA	0.1 UJ	NA
Kepone	ug/L	NA	NA	NA	NA	1 UJ	NA
Methoxychlor	ug/L	NA	NA	NA	NA	0.1 U	NA
Toxaphene	ug/L	NA	NA	NA	NA	1 U	NA
Organophosphate Pesticides							
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

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Organophosphate Pesticides (Cont'd.)							
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	1 U	NA
Disulfoton	ug/L	NA	NA	NA	NA	1 UJ	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	1 UJ	NA
Famphur	ug/L	NA	NA	NA	NA	1 U	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	1 U	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	1 U	NA
Phorate	ug/L	NA	NA	NA	NA	1 U	NA
Sulfotep	ug/L	NA	NA	NA	NA	1 U	NA
Thionazin	ug/L	NA	NA	NA	NA	1 U	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA
Herbicides							
2,4,5-T	ug/L	NA	NA	NA	NA	1 U	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	1 U	NA
2,4-D	ug/L	NA	NA	NA	NA	4 U	NA
Dinoseb	ug/L	NA	NA	NA	NA	0.6 UJ	NA
Dioxins/Furans							
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

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Dioxins/Furans (Cont'd.)							
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	0.0022 U	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	0.0022 U	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	0.0089 U	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	0.0022 U	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	0.0016 U	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	0.0029 U	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	0.003 U	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

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Volatile Organics							
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	1.0 U	NA
1,1,1-Trichloroethane	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	1.0 U	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	R	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	1.0 U	NA
1,2-Dichlorobenzene	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethene (total)	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	R	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	50 U	NA	50 U	50 U	5.0 UJ	50 U
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	1.0 U	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	50 U	NA	R	50 U	5.0 U	50 U
3-Chloropropene	ug/L	NA	NA	NA	NA	2.0 U	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U	NA	50 U	50 U	5.0 U	50 U
Acetone	ug/L	100 U	NA	1.8 J	100 U	10 UJ	100 U
Acetonitrile	ug/L	NA	NA	NA	NA	10 U	NA
Acrolein	ug/L	NA	NA	NA	NA	R	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	10 U	NA
Benzene	ug/L	5.0 U	NA	1.0 U	5.0 U	1.0 U	5.0 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Disulfide	ug/L	50 U	NA	50 U	50 U	1.0 U	50 U
Carbon Tetrachloride	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U

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Volatile Organics (Cont'd.)							
Chloroethane	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U
Dibromomethane	ug/L	NA	NA	NA	NA	1.0 U	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	1.0 U	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	1.0 U	NA
Ethylbenzene	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	1.0 U	NA
Isobutanol	ug/L	NA	NA	NA	NA	R	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	1.0 U	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	1.0 U	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	5.0 U	NA	1.0 U	5.0 U	1.0 U	5.0 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	R	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	1.0 U	NA
Trichloroethene	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	1.0 U	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	2.0 U	NA
Vinyl Chloride	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U
Total 1,3-Dichloropropenes	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U
Total Xylenes	ug/L	3.0 U	NA	3.0 U	3.0 U	1.0 U	3.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

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Semivolatile Organics							
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	5.0 U	NA
1,2,4-Trichlorobenzene	ug/L	5.0 U	NA	5.0 U	5.0 U	50 U	5.0 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	R	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	5.0 U	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	50 U	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	10 U	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	50 U	NA
2,4,5-Trichlorophenol	ug/L	50 U	NA	50 U	50 U	10 U	50 U
2,4,6-Trichlorophenol	ug/L	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dichlorophenol	ug/L	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dimethylphenol	ug/L	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dinitrophenol	ug/L	20 UJ	NA	20 U	20 UJ	20 U	20 U
2,4-Dinitrotoluene	ug/L	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	5.0 U	NA
2,6-Dinitrotoluene	ug/L	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	100 U	NA
2-Chloronaphthalene	ug/L	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
2-Chlorophenol	ug/L	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
2-Methylnaphthalene	ug/L	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
2-Methylphenol	ug/L	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
2-Naphthylamine	ug/L	NA	NA	NA	NA	10 U	NA
2-Nitroaniline	ug/L	20 U	NA	20 U	20 U	20 U	20 U
2-Nitrophenol	ug/L	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
2-Picoline	ug/L	NA	NA	NA	NA	20 U	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	20 U	NA	20 UJ	20 U	20 U	20 U
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	10 U	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	20 U	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	5.0 U	NA
3-Nitroaniline	ug/L	20 U	NA	20 U	20 U	20 U	20 U
4,6-Dinitro-2-methylphenol	ug/L	20 U	NA	20 U	20 U	20 U	20 U
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	50 U	NA
4-Bromophenyl-phenylether	ug/L	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloro-3-Methylphenol	ug/L	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloroaniline	ug/L	20 U	NA	20 U	20 U	10 U	20 U
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	10 U	NA
4-Chlorophenyl-phenylether	ug/L	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
4-Methylphenol	ug/L	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U

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Semivolatile Organics (Cont'd.)							
4-Nitroaniline	ug/L	20 U	NA	20 U	20 U	20 UJ	20 U
4-Nitrophenol	ug/L	20 UJ	NA	20 U	20 UJ	20 U	20 U
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	100 UJ	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	100 UJ	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	20 U	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	20 U	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	50 UJ	NA
Acenaphthene	ug/L	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
Acenaphthylene	ug/L	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
Acetophenone	ug/L	NA	NA	NA	NA	10 U	NA
Aniline	ug/L	NA	NA	NA	NA	10 U	NA
Anthracene	ug/L	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
Atrazine	ug/L	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	5.0 U	NA	5.0 UJ	5.0 U	5.0 U	5.0 U
Benzo(a)pyrene	ug/L	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(b)fluoranthene	ug/L	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(g,h,i)perylene	ug/L	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(k)fluoranthene	ug/L	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
Benzyl Alcohol	ug/L	NA	NA	NA	NA	10 U	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Chloroethyl)ether	ug/L	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Ethylhexyl)phthalate	ug/L	5.0 UJ	NA	1.4 J	5.0 UJ	5.0 U	2.2 J
Butylbenzylphthalate	ug/L	5.0 U	NA	5.0 UJ	5.0 U	5.0 U	5.0 U
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	10 U	NA	10 U	10 U	NA	10 U
Chrysene	ug/L	5.0 U	NA	5.0 UJ	5.0 U	5.0 U	5.0 U
Diallate	ug/L	NA	NA	NA	NA	5.0 U	NA
Dibenzo(a,h)anthracene	ug/L	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
Dibenzofuran	ug/L	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
Diethylphthalate	ug/L	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
Dimethylphthalate	ug/L	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
Di-n-Butylphthalate	ug/L	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
Di-n-Octylphthalate	ug/L	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
Diphenylamine	ug/L	NA	NA	NA	NA	5.0 U	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	10 U	NA
Fluoranthene	ug/L	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
Fluorene	ug/L	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobenzene	ug/L	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobutadiene	ug/L	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorocyclopentadiene	ug/L	5.0 U	NA	5.0 U	5.0 U	5.0 UJ	5.0 U
Hexachloroethane	ug/L	2.0 U	NA	5.0 U	2.0 U	5.0 U	2.0 U
Hexachloropropene	ug/L	NA	NA	NA	NA	100 U	NA
Indeno(1,2,3-cd)pyrene	ug/L	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U

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Semivolatile Organics (Cont'd.)							
Isophorone	ug/L	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
Isosafrole	ug/L	NA	NA	NA	NA	20 U	NA
Methapyrilene	ug/L	NA	NA	NA	NA	50 U	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	10 U	NA
Naphthalene	ug/L	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
Nitrobenzene	ug/L	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	10 U	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	5.0 U	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	10 U	NA
N-Nitroso-di-n-propylamine	ug/L	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosodiphenylamine	ug/L	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	10 U	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	10 U	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	10 U	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	10 U	NA
o-Toluidine	ug/L	NA	NA	NA	NA	20 U	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	20 U	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	5.0 U	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	10 U	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	50 U	NA
Pentachlorophenol	ug/L	25 U	NA	25 UJ	25 U	25 U	25 U
Phenacetin	ug/L	NA	NA	NA	NA	20 U	NA
Phenanthrene	ug/L	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
Phenol	ug/L	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
Pronamide	ug/L	NA	NA	NA	NA	20 U	NA
Pyrene	ug/L	5.0 U	NA	5.0 UJ	5.0 U	5.0 U	5.0 U
Pyridine	ug/L	NA	NA	NA	NA	10 U	NA
Safrole	ug/L	NA	NA	NA	NA	20 U	NA
Total Methylphenols	ug/L	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U
PCBs							
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA
PCBs-Dissolved							
Aroclor-1016 (Dissolved)	ug/L	0.2 U	0.2 U	R	0.2 U	0.2 U	0.2 U
Aroclor-1221 (Dissolved)	ug/L	0.2 U	0.2 U	R	0.2 U	0.8 U*	0.2 U
Aroclor-1232 (Dissolved)	ug/L	0.4 U	0.4 U	R	0.4 U	0.4 U	0.4 U
Aroclor-1242 (Dissolved)	ug/L	0.2 U	0.2 U	R	0.2 U	0.2 U	0.2 U

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PCBs-Dissolved (Cont'd.)							
Aroclor-1248 (Dissolved)	ug/L	0.2 U	0.2 U	R	0.2 U	0.2 U	0.2 U
Aroclor-1254 (Dissolved)	ug/L	0.2 U	0.2 U	R	0.2 U	0.2 U	0.2 U
Aroclor-1260 (Dissolved)	ug/L	0.2 U	0.2 U	R	0.2 U	0.2 U	0.2 U
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	0.4 U	0.4 U	R	0.4 U	0.8 U	0.4 U
Organochlorine Pesticides							
4,4'-DDD	ug/L	NA	NA	NA	NA	0.02 UJ	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	0.02 U	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	0.02 UJ	NA
Aldrin	ug/L	NA	NA	NA	NA	0.01 U	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	0.01 UJ	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	0.05 UJ	NA
Aroclor-1016	ug/L	0.2 U	0.2 U	R	0.2 U	0.2 UJ	0.2 U
Aroclor-1221	ug/L	0.2 U	0.2 U	R	0.2 U	0.2 UJ	0.2 U
Aroclor-1232	ug/L	0.4 U	0.4 U	R	0.4 U	0.4 U	0.4 U
Aroclor-1242	ug/L	0.2 U	0.2 U	R	0.2 U	0.2 U	0.2 U
Aroclor-1248	ug/L	0.2 U	0.2 U	R	0.2 U	0.2 U	0.2 U
Aroclor-1254	ug/L	0.2 U	0.2 U	R	0.2 U	0.2 U	0.2 U
Aroclor-1260	ug/L	0.2 U	0.2 U	R	0.2 U	0.2 U	0.2 U
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	0.01 UJ	NA
Delta-BHC	ug/L	NA	NA	NA	NA	0.01 UJ	NA
Dieldrin	ug/L	NA	NA	NA	NA	0.02 UJ	NA
Endosulfan I	ug/L	NA	NA	NA	NA	0.01 UJ	NA
Endosulfan II	ug/L	NA	NA	NA	NA	0.02 UJ	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	0.02 UJ	NA
Endrin	ug/L	NA	NA	NA	NA	0.02 UJ	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	0.02 U	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	0.01 UJ	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	0.05 UJ	NA
Heptachlor	ug/L	NA	NA	NA	NA	0.01 UJ	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	0.01 UJ	NA
Isodrin	ug/L	NA	NA	NA	NA	0.1 UJ	NA
Kepone	ug/L	NA	NA	NA	NA	1 UJ	NA
Methoxychlor	ug/L	NA	NA	NA	NA	0.1 U	NA
Toxaphene	ug/L	NA	NA	NA	NA	1 U	NA
Organophosphate Pesticides							
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA

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Organophosphate Pesticides (Cont'd.)							
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	1 U	NA
Disulfoton	ug/L	NA	NA	NA	NA	1 UJ	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	1 UJ	NA
Famphur	ug/L	NA	NA	NA	NA	1 U	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	1 U	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	1 U	NA
Phorate	ug/L	NA	NA	NA	NA	1 U	NA
Sulfotep	ug/L	NA	NA	NA	NA	1 U	NA
Thionazin	ug/L	NA	NA	NA	NA	1 U	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA
Herbicides							
2,4,5-T	ug/L	NA	NA	NA	NA	1 U	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	1 U	NA
2,4-D	ug/L	NA	NA	NA	NA	4 U	NA
Dinoseb	ug/L	NA	NA	NA	NA	0.6 UJ	NA
Dioxins/Furans							
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Northern Drainage Channels MW-5A 5 - 15 06/08/96	Northern Drainage Channels MW-5A 5 - 15 03/10/97	Northern Drainage Channels MW-5B 25 - 30 07/13/95	Northern Drainage Channels MW-5B 25 - 30 06/08/96	Northern Drainage Channels MW-6A 6 - 16 07/13/95	Northern Drainage Channels MW-6A 6 - 16 06/09/96
Dioxins/Furans (Cont'd.)							
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	0.0014 U	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	0.0006 U	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	0.0014 U	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	0.0014 U	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	0.00084 U	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	0.0011 U	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	0.0014 U	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Northern Drainage Channels MW-6A 6 - 16 03/10/97	Northern Drainage Channels MW-6B 27.5 - 32.5 07/13/95	Northern Drainage Channels MW-6B 27.5 - 32.5 06/09/96	Northern Drainage Channels TW-206WT 10 - 14 02/07/95	Northern Drainage Channels TW-207WT 02/07/95	Northern Drainage Channels TW-208S1 02/14/95
Volatile Organics							
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethene (total)	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	NA	50 UJ	50 U	50 U	2.6 J	50 U
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	NA	R	50 U	R	50 U	50 U
3-Chloropropene	ug/L	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	NA	50 U	50 U	50 U	50 U	50 U
Acetone	ug/L	NA	50 U	100 U	12 J	50 U	50 U
Acetonitrile	ug/L	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA
Benzene	ug/L	NA	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Disulfide	ug/L	NA	50 U	50 U	50 U	50 U	50 U
Carbon Tetrachloride	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

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TABLE A-1
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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Northern Drainage Channels MW-6A 6 - 16 03/10/97	Northern Drainage Channels MW-6B 27.5 - 32.5 07/13/95	Northern Drainage Channels MW-6B 27.5 - 32.5 06/09/96	Northern Drainage Channels TW-206WT 10 - 14 02/07/95	Northern Drainage Channels TW-207WT 02/07/95	Northern Drainage Channels TW-208S1 02/14/95
Volatile Organics (Cont'd.)							
Chloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	NA	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA
Styrene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total 1,3-Dichloropropenes	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total Xylenes	ug/L	NA	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U

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ORGANIC COMPOUNDS

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Northern Drainage Channels MW-6A 6 - 16 03/10/97	Northern Drainage Channels MW-6B 27.5 - 32.5 07/13/95	Northern Drainage Channels MW-6B 27.5 - 32.5 06/09/96	Northern Drainage Channels TW-206WT 10 - 14 02/07/95	Northern Drainage Channels TW-207WT 02/07/95	Northern Drainage Channels TW-208S1 02/14/95
Semivolatile Organics							
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	50 U	50 U	50 U	50 U	50 U
2,4,6-Trichlorophenol	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dichlorophenol	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dimethylphenol	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dinitrophenol	ug/L	NA	20 U	20 U	20 U	20 U	20 U
2,4-Dinitrotoluene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Chlorophenol	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Methylnaphthalene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Methylphenol	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	20 U	20 U	20 U	20 U	20 U
2-Nitrophenol	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Picoline	ug/L	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	20 U	20 U	20 U	20 U	20 U
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	20 U	20 U	20 U	20 U	20 U
4,6-Dinitro-2-methylphenol	ug/L	NA	20 U	20 U	20 U	20 U	20 U
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloro-3-Methylphenol	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloroaniline	ug/L	NA	20 U	20 U	20 U	20 U	20 U
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U
4-Methylphenol	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

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ORGANIC COMPOUNDS

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

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Semivolatile Organics (Cont'd.)							
4-Nitroaniline	ug/L	NA	20 U	20 U	20 U	20 U	20 U
4-Nitrophenol	ug/L	NA	20 U	20 U	20 U	20 U	20 U
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acenaphthylene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Atrazine	ug/L	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(a)pyrene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(b)fluoranthene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(g,h,i)perylene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(k)fluoranthene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Chloroethyl)ether	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Ethylhexyl)phthalate	ug/L	NA	4.0 J	5.0 U	3.4 J	5.0 U	5.0 U
Butylbenzylphthalate	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	10 U	10 U	5.0 U	5.0 U	5.0 U
Chrysene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Diallate	ug/L	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibenzofuran	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Diethylphthalate	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dimethylphthalate	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Di-n-Butylphthalate	ug/L	NA	5.0 U	5.0 U	1.8 J	1.3 J	5.0 U
Di-n-Octylphthalate	ug/L	NA	5.0 U	5.0 U	1.3 J	5.0 U	5.0 U
Diphenylamine	ug/L	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	5.0 U	5.0 U	0.58 J	5.0 U	5.0 U
Fluorene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobenzene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobutadiene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorocyclopentadiene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachloroethane	ug/L	NA	5.0 U	2.0 U	5.0 U	5.0 U	5.0 U
Hexachloropropene	ug/L	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Northern Drainage Channels MW-6A 6 - 16 03/10/97	Northern Drainage Channels MW-6B 27.5 - 32.5 07/13/95	Northern Drainage Channels MW-6B 27.5 - 32.5 06/09/96	Northern Drainage Channels TW-206WT 10 - 14 02/07/95	Northern Drainage Channels TW-207WT 02/07/95	Northern Drainage Channels TW-208S1 02/14/95
Semivolatile Organics (Cont'd.)							
Isophorone	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Isosafrole	ug/L	NA	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Nitrobenzene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosodiphenylamine	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	25 U	25 U	20 U	20 U	20 U
Phenacetin	ug/L	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	5.0 U	5.0 U	0.62 J	5.0 U	5.0 U
Phenol	ug/L	NA	1.0 J	5.0 U	0.58 J	5.0 U	2.5 J
Pronamide	ug/L	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	5.0 U	5.0 U	0.51 J	5.0 U	5.0 U
Pyridine	ug/L	NA	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
PCBs							
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA
PCBs-Dissolved							
Aroclor-1016 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.051 U	0.2 U
Aroclor-1221 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.051 U	0.2 U
Aroclor-1232 (Dissolved)	ug/L	0.4 U	0.4 U	0.4 U	0.4 U	0.051 U	0.4 U
Aroclor-1242 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.051 U	0.2 U

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TABLE A-1
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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Northern Drainage Channels MW-6A 6 - 16 03/10/97	Northern Drainage Channels MW-6B 27.5 - 32.5 07/13/95	Northern Drainage Channels MW-6B 27.5 - 32.5 06/09/96	Northern Drainage Channels TW-206WT 10 - 14 02/07/95	Northern Drainage Channels TW-207WT 02/07/95	Northern Drainage Channels TW-208S1 02/14/95
PCBs-Dissolved (Cont'd.)							
Aroclor-1248 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.051 U	0.2 U
Aroclor-1254 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.051 U	0.2 U
Aroclor-1260 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.051 U	0.2 U
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	0.4 U	0.4 U	0.4 U	0.4 U	0.051 U	0.4 U
Organochlorine Pesticides							
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.05 U	0.2 U
Aroclor-1221	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.05 U	0.2 U
Aroclor-1232	ug/L	0.4 U	0.4 U	0.4 U	0.4 U	0.05 U	0.4 U
Aroclor-1242	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.05 U	0.2 U
Aroclor-1248	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.18	0.2 U
Aroclor-1254	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.13	0.2 U
Aroclor-1260	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.052	0.2 U
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA
Organophosphate Pesticides							
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
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SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Northern Drainage Channels MW-6A 6 - 16 03/10/97	Northern Drainage Channels MW-6B 27.5 - 32.5 07/13/95	Northern Drainage Channels MW-6B 27.5 - 32.5 06/09/96	Northern Drainage Channels TW-206WT 10 - 14 02/07/95	Northern Drainage Channels TW-207WT 02/07/95	Northern Drainage Channels TW-208S1 02/14/95
Organophosphate Pesticides (Cont'd.)							
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA
Herbicides							
2,4,5-T	ug/L	NA	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA	NA
Dioxins/Furans							
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA

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Dioxins/Furans (Cont'd.)							
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Northern Drainage Channels TW-208S2 02/14/95	Northern Drainage Channels TW-208WT 02/14/95	Northern Drainage Channels TW-209S1 02/14/95	Northern Drainage Channels TW-209S2 02/14/95	Northern Drainage Channels TW-209WT 02/14/95
Volatile Organics						
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethene (total)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA
2-Butanone	ug/L	50 U	50 U	50 U	50 U	50 U
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA
2-Hexanone	ug/L	50 U	50 U	50 U	50 U	50 U
3-Chloropropene	ug/L	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U	50 U	50 U	50 U	50 U
Acetone	ug/L	50 U	50 U	50 U	50 U	50 U
Acetonitrile	ug/L	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA
Benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Disulfide	ug/L	50 U	50 U	50 U	50 U	50 U
Carbon Tetrachloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Northern Drainage Channels TW-208S2 02/14/95	Northern Drainage Channels TW-208WT 02/14/95	Northern Drainage Channels TW-209S1 02/14/95	Northern Drainage Channels TW-209S2 02/14/95	Northern Drainage Channels TW-209WT 02/14/95
Volatile Organics (Cont'd.)						
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	ug/L	1.0	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Naphthalene	ug/L	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA
Styrene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total 1,3-Dichloropropenes	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total Xylenes	ug/L	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Northern Drainage Channels TW-208S2 02/14/95	Northern Drainage Channels TW-208WT 02/14/95	Northern Drainage Channels TW-209S1 02/14/95	Northern Drainage Channels TW-209S2 02/14/95	Northern Drainage Channels TW-209WT 02/14/95
Semivolatile Organics						
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	50 U	50 U	50 U	50 UJ	50 U
2,4,6-Trichlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U
2,4-Dichlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U
2,4-Dimethylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U
2,4-Dinitrophenol	ug/L	20 U	20 U	20 U	20 UJ	20 U
2,4-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U
2-Chlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U
2-Methylnaphthalene	ug/L	5.0 U	1.7 J	5.0 U	5.0 UJ	1.4 J
2-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	20 U	20 U	20 U	20 UJ	20 U
2-Nitrophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U
2-Picoline	ug/L	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	20 U	20 U	20 U	20 UJ	20 U
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	20 U	20 U	20 U	20 UJ	20 U
4,6-Dinitro-2-methylphenol	ug/L	20 U	20 U	20 U	20 UJ	20 U
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U
4-Chloro-3-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U
4-Chloroaniline	ug/L	20 U	20 U	20 U	20 UJ	20 U
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U
4-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U

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TABLE A-1
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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Northern Drainage Channels TW-208S2 02/14/95	Northern Drainage Channels TW-208WT 02/14/95	Northern Drainage Channels TW-209S1 02/14/95	Northern Drainage Channels TW-209S2 02/14/95	Northern Drainage Channels TW-209WT 02/14/95
Semivolatile Organics (Cont'd.)						
4-Nitroaniline	ug/L	20 U	20 U	20 U	20 UJ	20 U
4-Nitrophenol	ug/L	20 U	20 U	20 U	20 UJ	20 U
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA
Acenaphthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U
Acenaphthylene	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U
Acetophenone	ug/L	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA
Anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U
Atrazine	ug/L	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U
Benzo(a)pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U
Benzo(b)fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U
Benzo(g,h,i)perylene	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U
Benzo(k)fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U
bis(2-Chloroethyl)ether	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U
bis(2-Ethylhexyl)phthalate	ug/L	5.0 U	5.0 U	6.6	5.0 UJ	49
Butylbenzylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U
Caprolactam	ug/L	NA	NA	NA	NA	NA
Carbazole	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U
Chrysene	ug/L	5.0 U	0.83 J	5.0 U	5.0 UJ	5.0 U
Diallate	ug/L	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U
Dibenzofuran	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U
Diethylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U
Dimethylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U
Di-n-Butylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U
Di-n-Octylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U
Diphenylamine	ug/L	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA
Fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U
Fluorene	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U
Hexachlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U
Hexachlorobutadiene	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U
Hexachlorocyclopentadiene	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U
Hexachloroethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U
Hexachloropropene	ug/L	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
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SAGINAW, MICHIGAN

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Semivolatile Organics (Cont'd.)						
Isophorone	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U
Isosafrole	ug/L	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA
Naphthalene	ug/L	5.0 U	1.8 J	5.0 U	5.0 UJ	1.7 J
Nitrobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U
N-Nitrosodiphenylamine	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	20 U	20 U	20 U	20 UJ	20 U
Phenacetin	ug/L	NA	NA	NA	NA	NA
Phenanthrene	ug/L	5.0 U	1.4 J	5.0 U	5.0 UJ	0.95 J
Phenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ	0.84 J
Pronamide	ug/L	NA	NA	NA	NA	NA
Pyrene	ug/L	5.0 U	0.84 J	5.0 U	5.0 UJ	5.0 U
Pyridine	ug/L	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
PCBs						
Aroclor-1016	ug/L	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA
PCBs-Dissolved						
Aroclor-1016 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1221 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1232 (Dissolved)	ug/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Aroclor-1242 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U

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TABLE A-1
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ORGANIC COMPOUNDS

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Sample ID: Sample Depth (feet): Date Collected:	Units	Northern Drainage Channels TW-208S2 02/14/95	Northern Drainage Channels TW-208WT 02/14/95	Northern Drainage Channels TW-209S1 02/14/95	Northern Drainage Channels TW-209S2 02/14/95	Northern Drainage Channels TW-209WT 02/14/95
PCBs-Dissolved (Cont'd.)						
Aroclor-1248 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1254 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1260 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Organochlorine Pesticides						
4,4'-DDD	ug/L	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1221	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1232	ug/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Aroclor-1242	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1248	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1254	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1260	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1262	ug/L	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA
Organophosphate Pesticides						
4,4'-DDD	ug/L	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA

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Organophosphate Pesticides (Cont'd.)						
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA
Herbicides						
2,4,5-T	ug/L	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA
Dioxins/Furans						
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Northern Drainage Channels TW-208S2 02/14/95	Northern Drainage Channels TW-208WT 02/14/95	Northern Drainage Channels TW-209S1 02/14/95	Northern Drainage Channels TW-209S2 02/14/95	Northern Drainage Channels TW-209WT 02/14/95
Dioxins/Furans (Cont'd.)						
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Parking Lot Area/Buffer Basin B-1BAUG 07/20/95	Parking Lot Area/Buffer Basin B-1CAUG 07/20/95	Parking Lot Area/Buffer Basin B-1DAUG 07/20/95	Parking Lot Area/Buffer Basin B-1R 07/20/95	Parking Lot Area/Buffer Basin MW-130S1 26 - 31 07/20/95
Volatile Organics						
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethene (total)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA
2-Butanone	ug/L	50 U	50 U	50 U	50 U	50 UJ
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA
2-Hexanone	ug/L	50 U	50 UJ	50 UJ	50 U	50 UJ
3-Chloropropene	ug/L	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U	50 UJ	50 UJ	50 U	50 UJ
Acetone	ug/L	50 UJ	50 U	50 U	50 U	50 UJ
Acetonitrile	ug/L	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA
Benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 U
Bromomethane	ug/L	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Disulfide	ug/L	1.0 J	50 U	50 U	50 U	50 U
Carbon Tetrachloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Parking Lot Area/Buffer Basin B-1BAUG 07/20/95	Parking Lot Area/Buffer Basin B-1CAUG 07/20/95	Parking Lot Area/Buffer Basin B-1DAUG 07/20/95	Parking Lot Area/Buffer Basin B-1R 07/20/95	Parking Lot Area/Buffer Basin MW-130S1 26 - 31 07/20/95
Volatile Organics (Cont'd.)						
Chloroethane	ug/L	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Naphthalene	ug/L	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA
Styrene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	1.0 U	1.5	1.0 U	1.0 U	1.0 U
Total 1,3-Dichloropropenes	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total Xylenes	ug/L	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U

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TABLE A-1
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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Parking Lot Area/Buffer Basin B-1BAUG 07/20/95	Parking Lot Area/Buffer Basin B-1CAUG 07/20/95	Parking Lot Area/Buffer Basin B-1DAUG 07/20/95	Parking Lot Area/Buffer Basin B-1R 07/20/95	Parking Lot Area/Buffer Basin MW-130S1 26 - 31 07/20/95
Semivolatile Organics						
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	50 U	50 U	50 U	50 U	50 U
2,4,6-Trichlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dichlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dimethylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dinitrophenol	ug/L	20 U	20 U	20 U	20 U	20 U
2,4-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Chlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Methylnaphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	20 U	20 U	20 U	20 U	20 U
2-Nitrophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Picoline	ug/L	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	20 U	20 U	20 U	20 U	20 U
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	20 U	20 U	20 U	20 U	20 U
4,6-Dinitro-2-methylphenol	ug/L	20 U	20 U	20 U	20 U	20 U
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloro-3-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloroaniline	ug/L	20 U	20 U	20 U	20 U	20 U
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Parking Lot Area/Buffer Basin B-1BAUG 07/20/95	Parking Lot Area/Buffer Basin B-1CAUG 07/20/95	Parking Lot Area/Buffer Basin B-1DAUG 07/20/95	Parking Lot Area/Buffer Basin B-1R 07/20/95	Parking Lot Area/Buffer Basin MW-130S1 26 - 31 07/20/95
Semivolatile Organics (Cont'd.)						
4-Nitroaniline	ug/L	20 U	20 U	20 U	20 U	20 U
4-Nitrophenol	ug/L	20 U	20 U	20 U	20 U	20 U
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA
Acenaphthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acenaphthylene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetophenone	ug/L	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA
Anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Atrazine	ug/L	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(a)pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(b)fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(g,h,i)perylene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(k)fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Chloroethyl)ether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Ethylhexyl)phthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Butylbenzylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Caprolactam	ug/L	NA	NA	NA	NA	NA
Carbazole	ug/L	10 U	10 U	10 U	10 U	10 U
Chrysene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Diallate	ug/L	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibenzofuran	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Diethylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dimethylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Di-n-Butylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Di-n-Octylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Diphenylamine	ug/L	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA
Fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Fluorene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobutadiene	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U
Hexachlorocyclopentadiene	ug/L	5.0 UJ	5.0 U	5.0 UJ	5.0 UJ	5.0 U
Hexachloroethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachloropropene	ug/L	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

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SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Parking Lot Area/Buffer Basin B-1BAUG 07/20/95	Parking Lot Area/Buffer Basin B-1CAUG 07/20/95	Parking Lot Area/Buffer Basin B-1DAUG 07/20/95	Parking Lot Area/Buffer Basin B-1R 07/20/95	Parking Lot Area/Buffer Basin MW-130S1 26 - 31 07/20/95
Semivolatile Organics (Cont'd.)						
Isophorone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Isosafrole	ug/L	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA
Naphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Nitrobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosodiphenylamine	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	25 U	25 U	25 U	25 U	25 U
Phenacetin	ug/L	NA	NA	NA	NA	NA
Phenanthrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Phenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Pronamide	ug/L	NA	NA	NA	NA	NA
Pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Pyridine	ug/L	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
PCBs						
Aroclor-1016	ug/L	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA
PCBs-Dissolved						
Aroclor-1016 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1221 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1232 (Dissolved)	ug/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Aroclor-1242 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Parking Lot Area/Buffer Basin B-1BAUG 07/20/95	Parking Lot Area/Buffer Basin B-1CAUG 07/20/95	Parking Lot Area/Buffer Basin B-1DAUG 07/20/95	Parking Lot Area/Buffer Basin B-1R 07/20/95	Parking Lot Area/Buffer Basin MW-130S1 26 - 31 07/20/95
PCBs-Dissolved (Cont'd.)						
Aroclor-1248 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1254 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1260 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Organochlorine Pesticides						
4,4'-DDD	ug/L	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1221	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1232	ug/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Aroclor-1242	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1248	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1254	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1260	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1262	ug/L	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA
Organophosphate Pesticides						
4,4'-DDD	ug/L	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA

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TABLE A-1
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SAGINAW, MICHIGAN

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Organophosphate Pesticides (Cont'd.)						
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA
Herbicides						
2,4,5-T	ug/L	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA
Dioxins/Furans						
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

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Dioxins/Furans (Cont'd.)						
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

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Volatile Organics						
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 UJ	1.0 UJ	1.0 U	NA	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U
1,2-Dichloroethene (total)	ug/L	1.0 U	1.0 U	1.0 U	NA	NA
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA
2-Butanone	ug/L	50 U	50 U	50 UJ	NA	50 U
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA
2-Hexanone	ug/L	50 UJ	50 UJ	50 UJ	NA	50 U
3-Chloropropene	ug/L	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 UJ	50 UJ	50 UJ	NA	50 U
Acetone	ug/L	50 U	50 U	50 UJ	NA	100 U
Acetonitrile	ug/L	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA
Benzene	ug/L	1.0 U	1.0 U	1.0 U	NA	5.0 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U
Bromoform	ug/L	1.0 UJ	1.0 UJ	1.0 U	NA	1.0 U
Bromomethane	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U
Carbon Disulfide	ug/L	50 U	50 U	50 U	NA	50 U
Carbon Tetrachloride	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U

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Volatile Organics (Cont'd.)						
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U
Chloroform	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U
Chloromethane	ug/L	1.0 U	1.0 U	1.0 UJ	NA	1.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U
Cyclohexane	ug/L	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	1.0 U	1.0 U	1.0 U	NA	5.0 U
Naphthalene	ug/L	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA
Styrene	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U
Toluene	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 UJ	1.0 UJ	1.0 U	NA	1.0 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U
Total 1,3-Dichloropropenes	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U
Total Xylenes	ug/L	3.0 U	3.0 U	3.0 U	NA	3.0 U

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Semivolatile Organics						
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	50 U	50 U	50 U	50 U	NA
2,4,6-Trichlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA
2,4-Dichlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA
2,4-Dimethylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA
2,4-Dinitrophenol	ug/L	20 U	20 U	20 U	20 UJ	NA
2,4-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA
2-Chlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA
2-Methylnaphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA
2-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	20 U	20 U	20 U	20 U	NA
2-Nitrophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA
2-Picoline	ug/L	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	20 U	20 U	20 U	20 U	NA
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	20 U	20 U	20 U	20 U	NA
4,6-Dinitro-2-methylphenol	ug/L	20 U	20 U	20 U	20 U	NA
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA
4-Chloro-3-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA
4-Chloroaniline	ug/L	20 U	20 U	20 U	20 U	NA
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA
4-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Parking Lot Area/Buffer Basin MW-130S2 36 - 41 07/20/95	Parking Lot Area/Buffer Basin MW-130S3 46 - 51 07/20/95	Parking Lot Area/Buffer Basin MW-130WT 3 - 13 07/20/95	Parking Lot Area/Buffer Basin MW-130WT 3 - 13 06/06/96	Parking Lot Area/Buffer Basin MW-179WT 5.5 - 15 09/27/96
Semivolatile Organics (Cont'd.)						
4-Nitroaniline	ug/L	20 U	20 U	20 U	20 U	NA
4-Nitrophenol	ug/L	20 U	20 U	20 U	20 U	NA
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA
Acenaphthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA
Acenaphthylene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA
Anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA
Atrazine	ug/L	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA
Benzo(a)pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA
Benzo(b)fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA
Benzo(g,h,i)perylene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA
Benzo(k)fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA
bis(2-Chloroethyl)ether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA
bis(2-Ethylhexyl)phthalate	ug/L	5.0 U	5.0 U	1.2 U	5.0 UJ	NA
Butylbenzylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA
Carbazole	ug/L	10 U	10 U	10 U	10 U	NA
Chrysene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA
Diallate	ug/L	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA
Dibenzofuran	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA
Diethylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA
Dimethylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA
Di-n-Butylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA
Di-n-Octylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA
Diphenylamine	ug/L	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA
Fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA
Fluorene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA
Hexachlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA
Hexachlorobutadiene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA
Hexachlorocyclopentadiene	ug/L	5.0 UJ	5.0 UJ	5.0 U	5.0 U	NA
Hexachloroethane	ug/L	5.0 U	5.0 U	5.0 U	2.0 U	NA
Hexachloropropene	ug/L	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Parking Lot Area/Buffer Basin MW-130S2 36 - 41 07/20/95	Parking Lot Area/Buffer Basin MW-130S3 46 - 51 07/20/95	Parking Lot Area/Buffer Basin MW-130WT 3 - 13 07/20/95	Parking Lot Area/Buffer Basin MW-130WT 3 - 13 06/06/96	Parking Lot Area/Buffer Basin MW-179WT 5.5 - 15 09/27/96
Semivolatile Organics (Cont'd.)						
Isophorone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA
Isosafrole	ug/L	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA
Naphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA
Nitrobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA
N-Nitrosodiphenylamine	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	25 U	25 U	25 U	25 U	NA
Phenacetin	ug/L	NA	NA	NA	NA	NA
Phenanthrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA
Phenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA
Pronamide	ug/L	NA	NA	NA	NA	NA
Pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA
Pyridine	ug/L	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA
PCBs						
Aroclor-1016	ug/L	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA
PCBs-Dissolved						
Aroclor-1016 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	NA	0.2 U
Aroclor-1221 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	NA	0.2 U
Aroclor-1232 (Dissolved)	ug/L	0.4 U	0.4 U	0.4 U	NA	0.4 U
Aroclor-1242 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	NA	0.2 U

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TABLE A-1
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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Parking Lot Area/Buffer Basin MW-130S2 36 - 41 07/20/95	Parking Lot Area/Buffer Basin MW-130S3 46 - 51 07/20/95	Parking Lot Area/Buffer Basin MW-130WT 3 - 13 07/20/95	Parking Lot Area/Buffer Basin MW-130WT 3 - 13 06/06/96	Parking Lot Area/Buffer Basin MW-179WT 5.5 - 15 09/27/96
PCBs-Dissolved (Cont'd.)						
Aroclor-1248 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	NA	0.2 U
Aroclor-1254 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	NA	0.2 U
Aroclor-1260 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	NA	0.2 U
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	0.4 U	0.4 U	0.4 U	NA	0.4 U
Organochlorine Pesticides						
4,4'-DDD	ug/L	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	0.2 U	0.2 U	0.2 U	NA	0.2 U
Aroclor-1221	ug/L	0.2 U	0.2 U	0.2 U	NA	0.2 U
Aroclor-1232	ug/L	0.4 U	0.4 U	0.4 U	NA	0.4 U
Aroclor-1242	ug/L	0.2 U	0.2 U	0.2 U	NA	0.2 U
Aroclor-1248	ug/L	0.2 U	0.2 U	0.2 U	NA	0.2 U
Aroclor-1254	ug/L	0.2 U	0.2 U	0.2 U	NA	0.2 U
Aroclor-1260	ug/L	0.2 U	0.2 U	0.2 U	NA	0.2 U
Aroclor-1262	ug/L	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA
Organophosphate Pesticides						
4,4'-DDD	ug/L	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA

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Organophosphate Pesticides (Cont'd.)						
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA
Herbicides						
2,4,5-T	ug/L	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA
Dioxins/Furans						
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA

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TABLE A-1
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SAGINAW, MICHIGAN

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Dioxins/Furans (Cont'd.)						
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Parking Lot Area/Buffer Basin MW-180WT 4 - 14 09/27/96	Parking Lot Area/Buffer Basin MW-181WT 3 - 13 09/26/96	Parking Lot Area/Buffer Basin MW-181WT 3 - 13 08/05/98	Parking Lot Area/Buffer Basin MW-182WT 3.9 - 13.9 08/05/98	Previous Metal Feedstock B-6BAUG 24.5 - 29.5 07/21/95
Volatile Organics						
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	NA	NA	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	NA	NA	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	NA	NA	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	NA	NA	1.0 U
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	NA	NA	1.0 U
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	NA	NA	1.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	NA	NA	1.0 U
1,2-Dichloroethene (total)	ug/L	NA	NA	NA	NA	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	NA	NA	1.0 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	NA	NA	1.0 U
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	NA	NA	1.0 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA
2-Butanone	ug/L	50 U	50 U	NA	NA	50 UJ
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA
2-Hexanone	ug/L	50 U	50 U	NA	NA	50 UJ
3-Chloropropene	ug/L	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U	50 U	NA	NA	50 UJ
Acetone	ug/L	100 U	100 U	NA	NA	50 UJ
Acetonitrile	ug/L	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA
Benzene	ug/L	5.0 U	5.0 U	NA	NA	1.0 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1.0 U	1.0 U	NA	NA	1.0 U
Bromoform	ug/L	1.0 U	1.0 U	NA	NA	1.0 U
Bromomethane	ug/L	1.0 U	1.0 U	NA	NA	1.0 U
Carbon Disulfide	ug/L	50 U	50 U	NA	NA	50 U
Carbon Tetrachloride	ug/L	1.0 U	1.0 U	NA	NA	1.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	NA	NA	1.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Parking Lot Area/Buffer Basin MW-180WT 4 - 14 09/27/96	Parking Lot Area/Buffer Basin MW-181WT 3 - 13 09/26/96	Parking Lot Area/Buffer Basin MW-181WT 3 - 13 08/05/98	Parking Lot Area/Buffer Basin MW-182WT 3.9 - 13.9 08/05/98	Previous Metal Feedstock B-6BAUG 24.5 - 29.5 07/21/95
Volatile Organics (Cont'd.)						
Chloroethane	ug/L	1.0 U	1.0 U	NA	NA	1.0 U
Chloroform	ug/L	1.0 U	1.0 U	NA	NA	1.0 U
Chloromethane	ug/L	1.0 U	1.0 U	NA	NA	1.0 UJ
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	NA	NA	1.0 U
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	NA	NA	1.0 U
Cyclohexane	ug/L	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	1.0 U	1.0 U	NA	NA	1.0 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1.0 U	1.0 U	NA	NA	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	5.0 U	5.0 U	NA	NA	1.0 U
Naphthalene	ug/L	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA
Styrene	ug/L	1.0 U	1.0 U	NA	NA	1.0 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1.0 U	1.0 U	NA	NA	1.0 U
Toluene	ug/L	1.0 U	1.0 U	NA	NA	1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	NA	NA	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	NA	NA	1.0 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1.0 U	1.0 U	NA	NA	1.0 U
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	1.0 U	1.0 U	NA	NA	1.0 U
Total 1,3-Dichloropropenes	ug/L	1.0 U	1.0 U	NA	NA	1.0 U
Total Xylenes	ug/L	3.0 U	3.0 U	NA	NA	3.0 U

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TABLE A-1
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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
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SAGINAW, MICHIGAN

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Semivolatile Organics						
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	5.0 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	NA	NA	NA	NA	5.0 U
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	50 U
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	5.0 U
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	5.0 U
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	5.0 U
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	20 U
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	5.0 U
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	NA	NA	NA	5.0 U
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	5.0 U
2-Chlorophenol	ug/L	NA	NA	NA	NA	5.0 U
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	5.0 U
2-Methylphenol	ug/L	NA	NA	NA	NA	5.0 U
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	20 U
2-Nitrophenol	ug/L	NA	NA	NA	NA	5.0 U
2-Picoline	ug/L	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	NA	20 U
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	20 U
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	NA	20 U
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	NA	5.0 U
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	5.0 U
4-Chloroaniline	ug/L	NA	NA	NA	NA	20 U
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	NA	5.0 U
4-Methylphenol	ug/L	NA	NA	NA	NA	5.0 U

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Semivolatile Organics (Cont'd.)						
4-Nitroaniline	ug/L	NA	NA	NA	NA	20 U
4-Nitrophenol	ug/L	NA	NA	NA	NA	20 U
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	5.0 U
Acenaphthylene	ug/L	NA	NA	NA	NA	5.0 U
Acetophenone	ug/L	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	5.0 U
Atrazine	ug/L	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	NA	NA	NA	5.0 U
Benzo(a)pyrene	ug/L	NA	NA	NA	NA	5.0 U
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	5.0 U
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	5.0 U
Benzo(k)fluoranthene	ug/L	NA	NA	NA	NA	5.0 U
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	5.0 U
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	5.0 U
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	0.52 U
Butylbenzylphthalate	ug/L	NA	NA	NA	NA	5.0 U
Caprolactam	ug/L	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	10 U
Chrysene	ug/L	NA	NA	NA	NA	5.0 U
Diallate	ug/L	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	NA	5.0 U
Dibenzofuran	ug/L	NA	NA	NA	NA	5.0 U
Diethylphthalate	ug/L	NA	NA	NA	NA	5.0 U
Dimethylphthalate	ug/L	NA	NA	NA	NA	5.0 U
Di-n-Butylphthalate	ug/L	NA	NA	NA	NA	5.0 U
Di-n-Octylphthalate	ug/L	NA	NA	NA	NA	5.0 U
Diphenylamine	ug/L	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	5.0 U
Fluorene	ug/L	NA	NA	NA	NA	5.0 U
Hexachlorobenzene	ug/L	NA	NA	NA	NA	5.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	5.0 U
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	5.0 U
Hexachloroethane	ug/L	NA	NA	NA	NA	5.0 U
Hexachloropropene	ug/L	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	NA	5.0 U

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Semivolatile Organics (Cont'd.)						
Isophorone	ug/L	NA	NA	NA	NA	5.0 U
Isosafrole	ug/L	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	5.0 U
Nitrobenzene	ug/L	NA	NA	NA	NA	5.0 U
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	NA	5.0 U
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	NA	5.0 U
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	25 U
Phenacetin	ug/L	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	5.0 U
Phenol	ug/L	NA	NA	NA	NA	5.0 U
Pronamide	ug/L	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	5.0 U
Pyridine	ug/L	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	NA	NA	NA	NA	5.0 U
PCBs						
Aroclor-1016	ug/L	NA	NA	0.20 U [0.20 U]	0.20 U	NA
Aroclor-1221	ug/L	NA	NA	0.20 U [0.20 U]	0.20 U	NA
Aroclor-1232	ug/L	NA	NA	0.40 U [0.40 U]	0.40 U	NA
Aroclor-1242	ug/L	NA	NA	0.20 U [0.20 U]	0.20 U	NA
Aroclor-1248	ug/L	NA	NA	0.20 U [0.20 U]	0.20 U	NA
Aroclor-1254	ug/L	NA	NA	0.20 UJ [0.20 U]	0.20 UJ	NA
Aroclor-1260	ug/L	NA	NA	0.20 U [0.20 U]	0.20 U	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	0.40 U [0.40 U]	0.40 U	NA
PCBs-Dissolved						
Aroclor-1016 (Dissolved)	ug/L	0.2 U	0.2 U	NA	NA	0.2 U
Aroclor-1221 (Dissolved)	ug/L	0.2 U	0.2 U	NA	NA	0.2 U
Aroclor-1232 (Dissolved)	ug/L	0.4 U	0.4 U	NA	NA	0.4 U
Aroclor-1242 (Dissolved)	ug/L	0.2 U	0.2 U	NA	NA	0.2 U

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PCBs-Dissolved (Cont'd.)						
Aroclor-1248 (Dissolved)	ug/L	0.2 U	0.2 U	NA	NA	0.2 U
Aroclor-1254 (Dissolved)	ug/L	0.2 U	0.2 U	NA	NA	0.2 U
Aroclor-1260 (Dissolved)	ug/L	0.2 U	0.2 U	NA	NA	0.2 U
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	0.4 U	0.4 U	NA	NA	0.4 U
Organochlorine Pesticides						
4,4'-DDD	ug/L	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	0.2 U	0.2 U	NA	NA	0.2 U
Aroclor-1221	ug/L	0.2 U	0.2 U	NA	NA	0.2 U
Aroclor-1232	ug/L	0.4 U	0.4 U	NA	NA	0.4 U
Aroclor-1242	ug/L	0.2 U	0.2 U	NA	NA	0.2 U
Aroclor-1248	ug/L	0.2 U	0.2 U	NA	NA	0.2 U
Aroclor-1254	ug/L	0.2 U	0.2 U	NA	NA	0.2 U
Aroclor-1260	ug/L	0.2 U	0.2 U	NA	NA	0.2 U
Aroclor-1262	ug/L	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA
Organophosphate Pesticides						
4,4'-DDD	ug/L	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA

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Organophosphate Pesticides (Cont'd.)						
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA
Herbicides						
2,4,5-T	ug/L	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA
Dioxins/Furans						
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Parking Lot Area/Buffer Basin MW-180WT 4 - 14 09/27/96	Parking Lot Area/Buffer Basin MW-181WT 3 - 13 09/26/96	Parking Lot Area/Buffer Basin MW-181WT 3 - 13 08/05/98	Parking Lot Area/Buffer Basin MW-182WT 3.9 - 13.9 08/05/98	Previous Metal Feedstock B-6BAUG 24.5 - 29.5 07/21/95
Dioxins/Furans (Cont'd.)						
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previous Metal Feedstock B-6CAUG 32 - 37 07/21/95	Previous Metal Feedstock B-6DAUG 44.5 - 49.5 07/21/95	Previous Metal Feedstock B-6R 5.5 - 15.5 07/21/95	Previously Proposed Type III Landfill Area MW-3A 2.5 - 12.5 07/27/95	Previously Proposed Type III Landfill Area MW-3A 2.5 - 12.5 06/12/96
Volatile Organics						
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
1,1-Dichloroethane	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
1,1-Dichloroethene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	5.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
1,2-Dichloroethene (total)	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
1,2-Dichloropropane	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	5.0 U
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	5.0 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA
2-Butanone	ug/L	50 UJ	50 UJ [50 UJ]	50 UJ	50 U	NA
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA
2-Hexanone	ug/L	50 UJ	50 U [50 U]	50 UJ	R	NA
3-Chloropropene	ug/L	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 UJ	50 U [50 U]	50 UJ	50 U	NA
Acetone	ug/L	50 UJ	50 UJ [50 UJ]	50 UJ	50 U	NA
Acetonitrile	ug/L	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA
Benzene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
Bromobenzene	ug/L	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
Bromoform	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
Bromomethane	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
Carbon Disulfide	ug/L	50 U	50 U [50 U]	50 U	50 U	NA
Carbon Tetrachloride	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
Chlorobenzene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA

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SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previous Metal Feedstock B-6CAUG 32 - 37 07/21/95	Previous Metal Feedstock B-6DAUG 44.5 - 49.5 07/21/95	Previous Metal Feedstock B-6R 5.5 - 15.5 07/21/95	Previously Proposed Type III Landfill Area MW-3A 2.5 - 12.5 07/27/95	Previously Proposed Type III Landfill Area MW-3A 2.5 - 12.5 06/12/96
Volatile Organics (Cont'd.)						
Chloroethane	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
Chloroform	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
Chloromethane	ug/L	1.0 UJ	1.0 U [1.0 U]	1.0 UJ	1.0 U	NA
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
Cyclohexane	ug/L	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
Dibromomethane	ug/L	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA
Styrene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
Toluene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 UJ	NA
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
Total 1,3-Dichloropropenes	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
Total Xylenes	ug/L	3.0 U	3.0 U [3.0 U]	3.0 U	3.0 U	NA

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previous Metal Feedstock B-6CAUG 32 - 37 07/21/95	Previous Metal Feedstock B-6DAUG 44.5 - 49.5 07/21/95	Previous Metal Feedstock B-6R 5.5 - 15.5 07/21/95	Previously Proposed Type III Landfill Area MW-3A 2.5 - 12.5 07/27/95	Previously Proposed Type III Landfill Area MW-3A 2.5 - 12.5 06/12/96
Semivolatile Organics						
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	50 U	50 U [50 U]	50 U	R	50 U
2,4,6-Trichlorophenol	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	R	5.0 U
2,4-Dichlorophenol	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	R	5.0 U
2,4-Dimethylphenol	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	R	5.0 U
2,4-Dinitrophenol	ug/L	20 U	20 U [20 U]	20 U	R	20 U
2,4-Dinitrotoluene	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
2-Chlorophenol	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	R	5.0 U
2-Methylnaphthalene	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
2-Methylphenol	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	R	5.0 U
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	20 U	20 U [20 U]	20 U	20 U	20 U
2-Nitrophenol	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	R	5.0 U
2-Picoline	ug/L	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	20 U	20 U [20 U]	20 U	20 U	20 U
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	20 U	20 U [20 U]	20 U	20 U	20 U
4,6-Dinitro-2-methylphenol	ug/L	20 U	20 U [20 U]	20 U	R	20 U
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
4-Chloro-3-Methylphenol	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	R	5.0 U
4-Chloroaniline	ug/L	20 U	20 U [20 U]	20 U	20 U	20 U
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
4-Methylphenol	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	R	5.0 U

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SAGINAW, MICHIGAN

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Semivolatile Organics (Cont'd.)						
4-Nitroaniline	ug/L	20 U	20 U [20 U]	20 U	20 U	20 U
4-Nitrophenol	ug/L	20 U	20 U [20 U]	20 U	R	20 U
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA
Acenaphthene	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Acenaphthylene	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Acetophenone	ug/L	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA
Anthracene	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Atrazine	ug/L	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Benzo(a)pyrene	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Benzo(b)fluoranthene	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Benzo(g,h,i)perylene	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Benzo(k)fluoranthene	ug/L	5.0 U	5.0 UJ [5.0 U]	5.0 U	5.0 U	5.0 U
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
bis(2-Chloroethyl)ether	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
bis(2-Ethylhexyl)phthalate	ug/L	5.0 U	5.0 U [0.53 U]	5.0 U	5.0 U	5.0 U
Butylbenzylphthalate	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Caprolactam	ug/L	NA	NA	NA	NA	NA
Carbazole	ug/L	10 U	10 U [10 U]	10 U	10 U	10 U
Chrysene	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Diallate	ug/L	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Dibenzofuran	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Diethylphthalate	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Dimethylphthalate	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Di-n-Butylphthalate	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Di-n-Octylphthalate	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Diphenylamine	ug/L	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA
Fluoranthene	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Fluorene	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Hexachlorobenzene	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Hexachlorobutadiene	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Hexachlorocyclopentadiene	ug/L	5.0 U	5.0 UJ [5.0 U]	5.0 U	5.0 U	5.0 U
Hexachloroethane	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	2.0 U
Hexachloropropene	ug/L	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previous Metal Feedstock B-6CAUG 32 - 37 07/21/95	Previous Metal Feedstock B-6DAUG 44.5 - 49.5 07/21/95	Previous Metal Feedstock B-6R 5.5 - 15.5 07/21/95	Previously Proposed Type III Landfill Area MW-3A 2.5 - 12.5 07/27/95	Previously Proposed Type III Landfill Area MW-3A 2.5 - 12.5 06/12/96
Semivolatile Organics (Cont'd.)						
Isophorone	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Isosafrole	ug/L	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA
Naphthalene	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Nitrobenzene	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
N-Nitrosodiphenylamine	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	25 U	25 U [25 U]	25 U	R	25 U
Phenacetin	ug/L	NA	NA	NA	NA	NA
Phenanthrene	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Phenol	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	R	5.0 U
Pronamide	ug/L	NA	NA	NA	NA	NA
Pyrene	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Pyridine	ug/L	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	R	5.0 U
PCBs						
Aroclor-1016	ug/L	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA
PCBs-Dissolved						
Aroclor-1016 (Dissolved)	ug/L	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	NA
Aroclor-1221 (Dissolved)	ug/L	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	NA
Aroclor-1232 (Dissolved)	ug/L	0.4 U	0.4 U [0.4 U]	0.4 U	0.4 U	NA
Aroclor-1242 (Dissolved)	ug/L	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previous Metal Feedstock B-6CAUG 32 - 37 07/21/95	Previous Metal Feedstock B-6DAUG 44.5 - 49.5 07/21/95	Previous Metal Feedstock B-6R 5.5 - 15.5 07/21/95	Previously Proposed Type III Landfill Area MW-3A 2.5 - 12.5 07/27/95	Previously Proposed Type III Landfill Area MW-3A 2.5 - 12.5 06/12/96
PCBs-Dissolved (Cont'd.)						
Aroclor-1248 (Dissolved)	ug/L	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	NA
Aroclor-1254 (Dissolved)	ug/L	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	NA
Aroclor-1260 (Dissolved)	ug/L	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	NA
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	0.4 U	0.4 U [0.4 U]	0.4 U	0.4 U	NA
Organochlorine Pesticides						
4,4'-DDD	ug/L	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	NA
Aroclor-1221	ug/L	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	NA
Aroclor-1232	ug/L	0.4 U	0.4 U [0.4 U]	0.4 U	0.4 U	NA
Aroclor-1242	ug/L	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	NA
Aroclor-1248	ug/L	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	NA
Aroclor-1254	ug/L	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	NA
Aroclor-1260	ug/L	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA
Organophosphate Pesticides						
4,4'-DDD	ug/L	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

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Organophosphate Pesticides (Cont'd.)						
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA
Herbicides						
2,4,5-T	ug/L	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA
Dioxins/Furans						
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

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Dioxins/Furans (Cont'd.)						
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA

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GENERAL MOTORS CORPORATION
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SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area MW-3B 23 - 28 07/27/95	Previously Proposed Type III Landfill Area MW-119S1 24 - 29 07/17/95	Previously Proposed Type III Landfill Area MW-119S2 36.5 - 41.5 07/17/95	Previously Proposed Type III Landfill Area MW-119WT 2 - 12 07/17/95
Volatile Organics					
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloropropene	ug/L	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethene (total)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichloropropane	ug/L	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA
2-Butanone	ug/L	50 U	50 U	50 U	50 U
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA
2-Hexanone	ug/L	R	R	R	R
3-Chloropropene	ug/L	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U	50 U	50 U	50 U
Acetone	ug/L	50 U	50 UJ	50 UJ	50 UJ
Acetonitrile	ug/L	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA
Benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromobenzene	ug/L	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	ug/L	1.0 U	1.0 UJ	1.0 UJ	1.0 UJ
Carbon Disulfide	ug/L	50 U	50 U	50 U	50 U
Carbon Tetrachloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U

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SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area MW-3B 23 - 28 07/27/95	Previously Proposed Type III Landfill Area MW-119S1 24 - 29 07/17/95	Previously Proposed Type III Landfill Area MW-119S2 36.5 - 41.5 07/17/95	Previously Proposed Type III Landfill Area MW-119WT 2 - 12 07/17/95
Volatile Organics (Cont'd.)					
Chloroethane	ug/L	1.0 U	1.0 UJ	1.0 UJ	1.0 UJ
Chloroform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	NA	NA	NA	NA
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Dibromomethane	ug/L	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA
Methylene Chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Naphthalene	ug/L	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA
Styrene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA
Tetrachloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 UJ	1.0 U	1.0 U	1.0 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA
Trichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	ug/L	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA
Vinyl Chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Total 1,3-Dichloropropenes	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Total Xylenes	ug/L	3.0 U	3.0 U	3.0 U	3.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area MW-3B 23 - 28 07/27/95	Previously Proposed Type III Landfill Area MW-119S1 24 - 29 07/17/95	Previously Proposed Type III Landfill Area MW-119S2 36.5 - 41.5 07/17/95	Previously Proposed Type III Landfill Area MW-119WT 2 - 12 07/17/95
Semivolatile Organics					
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	50 U	50 U	50 U	50 U
2,4,6-Trichlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dichlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dimethylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dinitrophenol	ug/L	20 U	20 U	20 U	20 U
2,4-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2-Chlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2-Methylnaphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2-Naphthylamine	ug/L	NA	NA	NA	NA
2-Nitroaniline	ug/L	20 U	20 U	20 U	20 U
2-Nitrophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2-Picoline	ug/L	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	20 U	20 U	20 U	20 U
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA
3-Nitroaniline	ug/L	20 U	20 U	20 U	20 U
4,6-Dinitro-2-methylphenol	ug/L	20 U	20 U	20 U	20 U
4-Aminobiphenyl	ug/L	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloro-3-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloroaniline	ug/L	20 U	20 U	20 U	20 U
4-Chlorobenzilate	ug/L	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U

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TABLE A-1
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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area MW-3B 23 - 28 07/27/95	Previously Proposed Type III Landfill Area MW-119S1 24 - 29 07/17/95	Previously Proposed Type III Landfill Area MW-119S2 36.5 - 41.5 07/17/95	Previously Proposed Type III Landfill Area MW-119WT 2 - 12 07/17/95
Semivolatile Organics (Cont'd.)					
4-Nitroaniline	ug/L	20 U	20 U	20 U	20 U
4-Nitrophenol	ug/L	20 U	20 UJ	20 UJ	20 UJ
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA
Acenaphthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Acenaphthylene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Acetophenone	ug/L	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA
Anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Atrazine	ug/L	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(a)pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(b)fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(g,h,i)perylene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(k)fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Benzyl Alcohol	ug/L	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Chloroethyl)ether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Ethylhexyl)phthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Butylbenzylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Caprolactam	ug/L	NA	NA	NA	NA
Carbazole	ug/L	10 U	10 U	10 U	10 U
Chrysene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Diallate	ug/L	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Dibenzofuran	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Diethylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Dimethylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Di-n-Butylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Di-n-Octylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Diphenylamine	ug/L	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA
Fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Fluorene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobutadiene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorocyclopentadiene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Hexachloroethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Hexachloropropene	ug/L	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U

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SAGINAW, MICHIGAN

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Semivolatile Organics (Cont'd.)					
Isophorone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Isosafrole	ug/L	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA
Naphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Nitrobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosodiphenylamine	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA
Pentachlorophenol	ug/L	25 U	25 U	25 U	25 U
Phenacetin	ug/L	NA	NA	NA	NA
Phenanthrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Phenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Pronamide	ug/L	NA	NA	NA	NA
Pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Pyridine	ug/L	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA
Total Methylphenols	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
PCBs					
Aroclor-1016	ug/L	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA
PCBs-Dissolved					
Aroclor-1016 (Dissolved)	ug/L	0.2 U	0.21 U	0.2 U	0.2 U
Aroclor-1221 (Dissolved)	ug/L	0.2 U	0.21 U	0.2 U	0.2 U
Aroclor-1232 (Dissolved)	ug/L	0.4 U	0.41 U	0.4 U	0.4 U
Aroclor-1242 (Dissolved)	ug/L	0.2 U	0.21 U	0.2 U	0.2 U

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PCBs-Dissolved (Cont'd.)					
Aroclor-1248 (Dissolved)	ug/L	0.2 U	0.21 U	0.2 U	0.2 U
Aroclor-1254 (Dissolved)	ug/L	0.2 U	0.21 U	0.2 U	0.2 U
Aroclor-1260 (Dissolved)	ug/L	0.2 U	0.21 U	0.2 U	0.2 U
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	0.4 U	0.41 U	0.4 U	0.4 U
Organochlorine Pesticides					
4,4'-DDD	ug/L	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA
Aroclor-1016	ug/L	0.2 U	0.21 U	0.2 U	0.21 U
Aroclor-1221	ug/L	0.2 U	0.21 U	0.2 U	0.21 U
Aroclor-1232	ug/L	0.4 U	0.41 U	0.4 U	0.41 U
Aroclor-1242	ug/L	0.2 U	0.21 U	0.2 U	0.21 U
Aroclor-1248	ug/L	0.2 U	0.21 U	0.2 U	0.41
Aroclor-1254	ug/L	0.2 U	0.21 U	0.2 U	0.21 U
Aroclor-1260	ug/L	0.2 U	0.21 U	0.2 U	0.21 U
Aroclor-1262	ug/L	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA
Organophosphate Pesticides					
4,4'-DDD	ug/L	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA

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Organophosphate Pesticides (Cont'd.)					
Alpha-Chlordane	ug/L	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA
Herbicides					
2,4,5-T	ug/L	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA
Dioxins/Furans					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA

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Dioxins/Furans (Cont'd.)					
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA

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SAGINAW, MICHIGAN

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Volatile Organics					
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	NA	NA	1.0 U	1.0 U [1.0 U]
1,1,2,2-Tetrachloroethane	ug/L	NA	NA	1.0 U	1.0 U [1.0 U]
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	NA	NA	1.0 U	1.0 U [1.0 U]
1,1-Dichloroethane	ug/L	NA	NA	1.0 U	1.0 U [1.0 U]
1,1-Dichloroethene	ug/L	NA	NA	1.0 U	1.0 U [1.0 U]
1,1-Dichloropropene	ug/L	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	1.0 U	1.0 U [1.0 U]
1,2-Dichloroethane	ug/L	NA	NA	1.0 U	1.0 U [1.0 U]
1,2-Dichloroethene (total)	ug/L	NA	NA	1.0 U	1.0 U [1.0 U]
1,2-Dichloropropane	ug/L	NA	NA	1.0 U	1.0 U [1.0 U]
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	1.0 U	1.0 U [1.0 U]
1,3-Dichloropropane	ug/L	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	1.0 U	1.0 U [1.0 U]
1,4-Dioxane	ug/L	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA
2-Butanone	ug/L	NA	NA	50 UJ	50 UJ [50 UJ]
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA
2-Hexanone	ug/L	NA	NA	50 U	50 U [50 U]
3-Chloropropene	ug/L	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	NA	NA	50 UJ	50 UJ [50 UJ]
Acetone	ug/L	NA	NA	50 UJ	50 UJ [50 UJ]
Acetonitrile	ug/L	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA
Benzene	ug/L	NA	NA	1.0 U	1.0 U [1.0 U]
Bromobenzene	ug/L	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA
Bromodichloromethane	ug/L	NA	NA	1.0 U	1.0 U [1.0 U]
Bromoform	ug/L	NA	NA	1.0 U	1.0 U [1.0 U]
Bromomethane	ug/L	NA	NA	1.0 U	1.0 U [1.0 U]
Carbon Disulfide	ug/L	NA	NA	50 U	50 U [50 U]
Carbon Tetrachloride	ug/L	NA	NA	1.0 U	1.0 U [1.0 U]
Chlorobenzene	ug/L	NA	NA	1.0 U	1.0 U [1.0 U]

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area MW-119WT 2 - 12 06/10/96	Previously Proposed Type III Landfill Area MW-119WT 2 - 12 05/21/00	Previously Proposed Type III Landfill Area MW-120S1 23.8 - 28.8 07/18/95	Previously Proposed Type III Landfill Area MW-120S2 36 - 41 07/18/95
Volatile Organics (Cont'd.)					
Chloroethane	ug/L	NA	NA	1.0 U	1.0 U [1.0 U]
Chloroform	ug/L	NA	NA	1.0 U	1.0 U [1.0 U]
Chloromethane	ug/L	NA	NA	1.0 U	1.0 U [1.0 U]
cis-1,2-Dichloroethene	ug/L	NA	NA	1.0 U	1.0 U [1.0 U]
cis-1,3-Dichloropropene	ug/L	NA	NA	1.0 U	1.0 U [1.0 U]
Cyclohexane	ug/L	NA	NA	NA	NA
Dibromochloromethane	ug/L	NA	NA	1.0 U	1.0 U [1.0 U]
Dibromomethane	ug/L	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA
Ethylbenzene	ug/L	NA	NA	1.0 U	1.0 U [1.0 U]
Hexachlorobutadiene	ug/L	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA
Methylene Chloride	ug/L	NA	NA	1.0 U	1.0 U [1.0 U]
Naphthalene	ug/L	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA
Styrene	ug/L	NA	NA	1.0 U	1.0 U [1.0 U]
tert-Butylbenzene	ug/L	NA	NA	NA	NA
Tetrachloroethene	ug/L	NA	NA	1.0 U	1.0 U [1.0 U]
Toluene	ug/L	NA	NA	1.0 U	1.0 U [1.0 U]
trans-1,2-Dichloroethene	ug/L	NA	NA	1.0 U	1.0 U [1.0 U]
trans-1,3-Dichloropropene	ug/L	NA	NA	1.0 U	1.0 U [1.0 U]
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA
Trichloroethene	ug/L	NA	NA	1.0 U	1.0 U [1.0 U]
Trichlorofluoromethane	ug/L	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA
Vinyl Chloride	ug/L	NA	NA	1.0 U	1.3 [1.4]
Total 1,3-Dichloropropenes	ug/L	NA	NA	1.0 U	1.0 U [1.0 U]
Total Xylenes	ug/L	NA	NA	3.0 U	3.0 U [3.0 U]

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area MW-119WT 2 - 12 06/10/96	Previously Proposed Type III Landfill Area MW-119WT 2 - 12 05/21/00	Previously Proposed Type III Landfill Area MW-120S1 23.8 - 28.8 07/18/95	Previously Proposed Type III Landfill Area MW-120S2 36 - 41 07/18/95
Semivolatile Organics					
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	5.0 U	5.0 U [5.0 U]
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	NA	NA	5.0 UJ	5.0 UJ [5.0 U]
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	50 U	50 U [50 U]
2,4,6-Trichlorophenol	ug/L	NA	NA	5.0 U	5.0 U [5.0 U]
2,4-Dichlorophenol	ug/L	NA	NA	5.0 U	5.0 U [5.0 U]
2,4-Dimethylphenol	ug/L	NA	NA	5.0 U	5.0 U [5.0 U]
2,4-Dinitrophenol	ug/L	NA	NA	20 U	20 U [20 U]
2,4-Dinitrotoluene	ug/L	NA	NA	5.0 U	5.0 U [5.0 U]
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	NA	5.0 U	5.0 U [5.0 U]
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	5.0 U	5.0 U [5.0 U]
2-Chlorophenol	ug/L	NA	NA	5.0 U	5.0 U [5.0 U]
2-Methylnaphthalene	ug/L	NA	NA	5.0 U	5.0 U [5.0 U]
2-Methylphenol	ug/L	NA	NA	5.0 U	5.0 U [5.0 U]
2-Naphthylamine	ug/L	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	20 U	20 U [20 U]
2-Nitrophenol	ug/L	NA	NA	5.0 U	5.0 U [5.0 U]
2-Picoline	ug/L	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	20 U	20 U [20 U]
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	20 U	20 U [20 U]
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	20 U	20 U [20 U]
4-Aminobiphenyl	ug/L	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	5.0 U	5.0 U [5.0 U]
4-Chloro-3-Methylphenol	ug/L	NA	NA	5.0 U	5.0 U [5.0 U]
4-Chloroaniline	ug/L	NA	NA	20 U	20 U [20 U]
4-Chlorobenzilate	ug/L	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	5.0 U	5.0 U [5.0 U]
4-Methylphenol	ug/L	NA	NA	5.0 U	5.0 U [5.0 U]

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

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Semivolatile Organics (Cont'd.)					
4-Nitroaniline	ug/L	NA	NA	20 U	20 UJ [20 U]
4-Nitrophenol	ug/L	NA	NA	20 UJ	20 UJ [20 U]
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	5.0 U	5.0 U [5.0 U]
Acenaphthylene	ug/L	NA	NA	5.0 U	5.0 U [5.0 U]
Acetophenone	ug/L	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	5.0 U	5.0 U [5.0 U]
Atrazine	ug/L	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	NA	5.0 U	5.0 U [5.0 U]
Benzo(a)pyrene	ug/L	NA	NA	5.0 U	5.0 U [5.0 U]
Benzo(b)fluoranthene	ug/L	NA	NA	5.0 U	5.0 U [5.0 U]
Benzo(g,h,i)perylene	ug/L	NA	NA	5.0 U	5.0 U [5.0 U]
Benzo(k)fluoranthene	ug/L	NA	NA	5.0 U	5.0 U [5.0 U]
Benzyl Alcohol	ug/L	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	5.0 U	5.0 U [5.0 U]
bis(2-Chloroethyl)ether	ug/L	NA	NA	5.0 U	5.0 U [5.0 U]
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	5.0 U	3.3 U [1.3 U]
Butylbenzylphthalate	ug/L	NA	NA	5.0 U	5.0 U [5.0 U]
Caprolactam	ug/L	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	10 U	10 U [10 U]
Chrysene	ug/L	NA	NA	5.0 U	5.0 U [5.0 U]
Diallate	ug/L	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	5.0 U	5.0 U [5.0 U]
Dibenzofuran	ug/L	NA	NA	5.0 U	5.0 U [5.0 U]
Diethylphthalate	ug/L	NA	NA	5.0 U	5.0 U [5.0 U]
Dimethylphthalate	ug/L	NA	NA	5.0 U	5.0 U [5.0 U]
Di-n-Butylphthalate	ug/L	NA	NA	5.0 U	5.0 U [5.0 U]
Di-n-Octylphthalate	ug/L	NA	NA	5.0 U	5.0 U [5.0 U]
Diphenylamine	ug/L	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	5.0 U	5.0 U [5.0 U]
Fluorene	ug/L	NA	NA	5.0 U	5.0 U [5.0 U]
Hexachlorobenzene	ug/L	NA	NA	5.0 U	5.0 U [5.0 U]
Hexachlorobutadiene	ug/L	NA	NA	5.0 U	5.0 U [5.0 U]
Hexachlorocyclopentadiene	ug/L	NA	NA	5.0 U	5.0 U [5.0 U]
Hexachloroethane	ug/L	NA	NA	5.0 U	5.0 U [5.0 U]
Hexachloropropene	ug/L	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	5.0 U	5.0 U [5.0 U]

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

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Semivolatile Organics (Cont'd.)					
Isophorone	ug/L	NA	NA	5.0 U	5.0 U [5.0 U]
Isosafrole	ug/L	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	5.0 U	5.0 U [5.0 U]
Nitrobenzene	ug/L	NA	NA	5.0 U	5.0 U [5.0 U]
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	5.0 U	5.0 U [5.0 U]
N-Nitrosodiphenylamine	ug/L	NA	NA	5.0 U	5.0 U [5.0 U]
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	25 U	25 U [25 U]
Phenacetin	ug/L	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	5.0 U	5.0 U [5.0 U]
Phenol	ug/L	NA	NA	5.0 U	0.78 J [5.0 U]
Pronamide	ug/L	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	5.0 U	5.0 U [5.0 U]
Pyridine	ug/L	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA
Total Methylphenols	ug/L	NA	NA	5.0 U	5.0 U [5.0 U]
PCBs					
Aroclor-1016	ug/L	NA	0.20 U	NA	NA
Aroclor-1221	ug/L	NA	0.20 U	NA	NA
Aroclor-1232	ug/L	NA	0.40 U	NA	NA
Aroclor-1242	ug/L	NA	0.20 U	NA	NA
Aroclor-1248	ug/L	NA	0.20 U	NA	NA
Aroclor-1254	ug/L	NA	0.20 U	NA	NA
Aroclor-1260	ug/L	NA	0.20 U	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA
Total PCBs	ug/L	NA	0.40 U	NA	NA
PCBs-Dissolved					
Aroclor-1016 (Dissolved)	ug/L	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U [0.2 U]
Aroclor-1221 (Dissolved)	ug/L	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U [0.2 U]
Aroclor-1232 (Dissolved)	ug/L	0.4 U [0.4 U]	0.4 U	0.4 U	0.4 U [0.4 U]
Aroclor-1242 (Dissolved)	ug/L	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U [0.2 U]

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SAGINAW, MICHIGAN

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PCBs-Dissolved (Cont'd.)					
Aroclor-1248 (Dissolved)	ug/L	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U [0.2 U]
Aroclor-1254 (Dissolved)	ug/L	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U [0.2 U]
Aroclor-1260 (Dissolved)	ug/L	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U [0.2 U]
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	0.4 U [0.4 U]	0.4 U	0.4 U	0.4 U [0.4 U]
Organochlorine Pesticides					
4,4'-DDD	ug/L	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA
Aroclor-1016	ug/L	0.2 U [0.2 U]	NA	0.2 U	0.2 U [0.2 UJ]
Aroclor-1221	ug/L	0.2 U [0.2 U]	NA	0.2 U	0.2 U [0.2 UJ]
Aroclor-1232	ug/L	0.4 U [0.4 U]	NA	0.4 U	0.4 U [0.4 UJ]
Aroclor-1242	ug/L	0.2 U [0.2 U]	NA	0.2 U	0.2 U [0.2 UJ]
Aroclor-1248	ug/L	0.2 U [0.2 U]	NA	0.2 U	0.2 U [0.2 UJ]
Aroclor-1254	ug/L	0.2 U [0.2 U]	NA	0.2 U	0.2 U [0.2 UJ]
Aroclor-1260	ug/L	0.2 U [0.2 U]	NA	0.2 U	0.2 U [0.2 UJ]
Aroclor-1262	ug/L	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA
Organophosphate Pesticides					
4,4'-DDD	ug/L	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area MW-119WT 2 - 12 06/10/96	Previously Proposed Type III Landfill Area MW-119WT 2 - 12 05/21/00	Previously Proposed Type III Landfill Area MW-120S1 23.8 - 28.8 07/18/95	Previously Proposed Type III Landfill Area MW-120S2 36 - 41 07/18/95
Organophosphate Pesticides (Cont'd.)					
Alpha-Chlordane	ug/L	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA
Herbicides					
2,4,5-T	ug/L	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA
Dioxins/Furans					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA

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Dioxins/Furans (Cont'd.)					
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA

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SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area MW-120WT 4 - 14 07/18/95	Previously Proposed Type III Landfill Area MW-121S1 21.5 - 26.5 07/18/95	Previously Proposed Type III Landfill Area MW-121S2 34.8 - 39.8 07/18/95	Previously Proposed Type III Landfill Area MW-121WT 3.5 - 13.5 07/18/95
Volatile Organics					
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloropropene	ug/L	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 UJ
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethene (total)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 UJ
1,3-Dichloropropane	ug/L	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 UJ
1,4-Dioxane	ug/L	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA
2-Butanone	ug/L	50 UJ	50 UJ	50 UJ	50 UJ
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA
2-Hexanone	ug/L	50 U	50 U	50 U	50 U
3-Chloropropene	ug/L	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 UJ	50 UJ	50 UJ	50 UJ
Acetone	ug/L	50 UJ	50 UJ	50 UJ	50 UJ
Acetonitrile	ug/L	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA
Benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromobenzene	ug/L	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Disulfide	ug/L	50 U	50 U	50 U	50 U
Carbon Tetrachloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U

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SAGINAW, MICHIGAN

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Volatile Organics (Cont'd.)					
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	NA	NA	NA	NA
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Dibromomethane	ug/L	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA
Methylene Chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Naphthalene	ug/L	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA
Styrene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA
Tetrachloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA
Trichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	ug/L	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA
Vinyl Chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Total 1,3-Dichloropropenes	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Total Xylenes	ug/L	3.0 U	3.0 U	3.0 U	3.0 U

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Semivolatile Organics					
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	5.0 UJ	5.0 U	5.0 U	5.0 UJ
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	50 U	50 U	50 U	R
2,4,6-Trichlorophenol	ug/L	5.0 U	5.0 U	5.0 U	R
2,4-Dichlorophenol	ug/L	5.0 U	5.0 U	5.0 U	R
2,4-Dimethylphenol	ug/L	5.0 U	5.0 U	5.0 U	R
2,4-Dinitrophenol	ug/L	20 U	20 U	20 U	R
2,4-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ
2-Chlorophenol	ug/L	5.0 U	5.0 U	5.0 U	R
2-Methylnaphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ
2-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	R
2-Naphthylamine	ug/L	NA	NA	NA	NA
2-Nitroaniline	ug/L	20 U	20 U	20 U	20 UJ
2-Nitrophenol	ug/L	5.0 U	5.0 U	5.0 U	R
2-Picoline	ug/L	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	20 U	20 U	20 U	20 UJ
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA
3-Nitroaniline	ug/L	20 U	20 U	20 U	20 U
4,6-Dinitro-2-methylphenol	ug/L	20 U	20 U	20 U	R
4-Aminobiphenyl	ug/L	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ
4-Chloro-3-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	R
4-Chloroaniline	ug/L	20 U	20 U	20 U	20 UJ
4-Chlorobenzilate	ug/L	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ
4-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	R

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Semivolatile Organics (Cont'd.)					
4-Nitroaniline	ug/L	20 U	20 U	20 U	20 UJ
4-Nitrophenol	ug/L	20 UJ	20 U	20 U	R
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA
Acenaphthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ
Acenaphthylene	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ
Acetophenone	ug/L	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA
Anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ
Atrazine	ug/L	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ
Benzo(a)pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ
Benzo(b)fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ
Benzo(g,h,i)perylene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(k)fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ
Benzyl Alcohol	ug/L	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ
bis(2-Chloroethyl)ether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Ethylhexyl)phthalate	ug/L	5.0 U	0.86 U	1.8 U	5.0 UJ
Butylbenzylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ
Caprolactam	ug/L	NA	NA	NA	NA
Carbazole	ug/L	10 U	10 U	10 U	10 UJ
Chrysene	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ
Diallate	ug/L	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ
Dibenzofuran	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ
Diethylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ
Dimethylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ
Di-n-Butylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ
Di-n-Octylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ
Diphenylamine	ug/L	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA
Fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ
Fluorene	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ
Hexachlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ
Hexachlorobutadiene	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ
Hexachlorocyclopentadiene	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ
Hexachloroethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ
Hexachloropropene	ug/L	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area MW-120WT 4 - 14 07/18/95	Previously Proposed Type III Landfill Area MW-121S1 21.5 - 26.5 07/18/95	Previously Proposed Type III Landfill Area MW-121S2 34.8 - 39.8 07/18/95	Previously Proposed Type III Landfill Area MW-121WT 3.5 - 13.5 07/18/95
Semivolatile Organics (Cont'd.)					
Isophorone	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ
Isosafrole	ug/L	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA
Naphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ
Nitrobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ
N-Nitrosodiphenylamine	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA
Pentachlorophenol	ug/L	25 U	25 U	25 U	R
Phenacetin	ug/L	NA	NA	NA	NA
Phenanthrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ
Phenol	ug/L	5.0 U	5.0 U	5.0 U	R
Pronamide	ug/L	NA	NA	NA	NA
Pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ
Pyridine	ug/L	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA
Total Methylphenols	ug/L	5.0 U	5.0 U	5.0 U	R
PCBs					
Aroclor-1016	ug/L	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA
PCBs-Dissolved					
Aroclor-1016 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1221 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1232 (Dissolved)	ug/L	0.4 U	0.4 U	0.4 U	0.4 U
Aroclor-1242 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U

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TABLE A-1
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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
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SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area MW-120WT 4 - 14 07/18/95	Previously Proposed Type III Landfill Area MW-121S1 21.5 - 26.5 07/18/95	Previously Proposed Type III Landfill Area MW-121S2 34.8 - 39.8 07/18/95	Previously Proposed Type III Landfill Area MW-121WT 3.5 - 13.5 07/18/95
PCBs-Dissolved (Cont'd.)					
Aroclor-1248 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1254 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1260 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	0.4 U	0.4 U	0.4 U	0.4 U
Organochlorine Pesticides					
4,4'-DDD	ug/L	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA
Aroclor-1016	ug/L	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1221	ug/L	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1232	ug/L	0.4 U	0.4 U	0.4 U	0.4 U
Aroclor-1242	ug/L	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1248	ug/L	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1254	ug/L	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1260	ug/L	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1262	ug/L	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA
Organophosphate Pesticides					
4,4'-DDD	ug/L	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA

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Organophosphate Pesticides (Cont'd.)					
Alpha-Chlordane	ug/L	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA
Herbicides					
2,4,5-T	ug/L	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA
Dioxins/Furans					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA

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Dioxins/Furans (Cont'd.)					
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA

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Volatile Organics					
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	NA	1.0 U	1.0 U	1.0 U
1,1-Dichloropropene	ug/L	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	5.0 U	1.0 U	NA	1.0 U
1,2-Dichloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U
1,2-Dichloroethene (total)	ug/L	NA	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	NA	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	5.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichloropropane	ug/L	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	5.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA
2-Butanone	ug/L	NA	50 U	50 U	50 U
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA
2-Hexanone	ug/L	NA	50 U	50 U	50 U
3-Chloropropene	ug/L	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	NA	50 U	50 U	50 U
Acetone	ug/L	NA	50 U	50 U	50 U
Acetonitrile	ug/L	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA
Benzene	ug/L	NA	1.0 U	1.0 U	1.0 U
Bromobenzene	ug/L	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA
Bromodichloromethane	ug/L	NA	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	NA	1.0 U	1.0 U	1.0 U
Bromomethane	ug/L	NA	1.0 U	1.0 U	1.0 U
Carbon Disulfide	ug/L	NA	50 U	50 U	50 U
Carbon Tetrachloride	ug/L	NA	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	NA	1.0 U	1.0 U	1.0 U

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Volatile Organics (Cont'd.)					
Chloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U
Chloroform	ug/L	NA	1.0 U	1.0 U	1.0 U
Chloromethane	ug/L	NA	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	NA	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	NA	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	NA	NA	NA	NA
Dibromochloromethane	ug/L	NA	1.0 U	1.0 U	1.0 U
Dibromomethane	ug/L	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA
Ethylbenzene	ug/L	NA	1.0 U	1.0 U	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA
Methylene Chloride	ug/L	NA	1.0 U	1.0 U	1.0 U
Naphthalene	ug/L	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA
Styrene	ug/L	NA	1.0 U	1.0 U	1.0 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA
Tetrachloroethene	ug/L	NA	1.0 U	1.0 U	1.0 U
Toluene	ug/L	NA	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	NA	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	NA	1.0 U	1.0 U	1.0 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA
Trichloroethene	ug/L	NA	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	ug/L	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA
Vinyl Chloride	ug/L	NA	1.0 U	1.0 U	1.0 U
Total 1,3-Dichloropropenes	ug/L	NA	1.0 U	1.0 U	1.0 U
Total Xylenes	ug/L	NA	3.0 U	3.0 U	3.0 U

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Semivolatile Organics					
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	50 U	50 U	50 U	50 U
2,4,6-Trichlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dichlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dimethylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dinitrophenol	ug/L	20 U	20 U	20 U	20 U
2,4-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2-Chlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2-Methylnaphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2-Naphthylamine	ug/L	NA	NA	NA	NA
2-Nitroaniline	ug/L	20 U	20 U	20 U	20 U
2-Nitrophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2-Picoline	ug/L	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	20 U	20 U	20 U	20 U
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA
3-Nitroaniline	ug/L	20 U	20 U	20 U	20 U
4,6-Dinitro-2-methylphenol	ug/L	20 U	20 U	20 U	20 U
4-Aminobiphenyl	ug/L	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloro-3-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloroaniline	ug/L	20 U	20 U	20 U	20 U
4-Chlorobenzilate	ug/L	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area MW-121WT 3.5 - 13.5 06/04/96	Previously Proposed Type III Landfill Area MW-122S1 18.1 - 23.1 07/18/95	Previously Proposed Type III Landfill Area MW-122S2 25.8 - 30.8 07/18/95	Previously Proposed Type III Landfill Area MW-122WT 2 - 12 07/18/95
Semivolatile Organics (Cont'd.)					
4-Nitroaniline	ug/L	20 U	20 U	20 U	20 U
4-Nitrophenol	ug/L	20 U	20 U	20 UJ	20 UJ
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA
Acenaphthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Acenaphthylene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Acetophenone	ug/L	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA
Anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Atrazine	ug/L	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(a)pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(b)fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(g,h,i)perylene	ug/L	5.0 UJ	5.0 U	5.0 U	5.0 U
Benzo(k)fluoranthene	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U
Benzyl Alcohol	ug/L	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Chloroethyl)ether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Ethylhexyl)phthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Butylbenzylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Caprolactam	ug/L	NA	NA	NA	NA
Carbazole	ug/L	10 U	10 U	10 U	10 U
Chrysene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Diallate	ug/L	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Dibenzofuran	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Diethylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Dimethylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Di-n-Butylphthalate	ug/L	5.0 U	5.0 U	1.0 J	5.0 U
Di-n-Octylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Diphenylamine	ug/L	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA
Fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Fluorene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobutadiene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorocyclopentadiene	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U
Hexachloroethane	ug/L	2.0 U	5.0 U	5.0 U	5.0 U
Hexachloropropene	ug/L	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	5.0 UJ	5.0 U	5.0 U	5.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area MW-121WT 3.5 - 13.5 06/04/96	Previously Proposed Type III Landfill Area MW-122S1 18.1 - 23.1 07/18/95	Previously Proposed Type III Landfill Area MW-122S2 25.8 - 30.8 07/18/95	Previously Proposed Type III Landfill Area MW-122WT 2 - 12 07/18/95
Semivolatile Organics (Cont'd.)					
Isophorone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Isosafrole	ug/L	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA
Naphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Nitrobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosodiphenylamine	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA
Pentachlorophenol	ug/L	25 U	25 U	25 U	25 U
Phenacetin	ug/L	NA	NA	NA	NA
Phenanthrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Phenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Pronamide	ug/L	NA	NA	NA	NA
Pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Pyridine	ug/L	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA
Total Methylphenols	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
PCBs					
Aroclor-1016	ug/L	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA
PCBs-Dissolved					
Aroclor-1016 (Dissolved)	ug/L	NA	0.2 UJ	0.2 UJ	0.2 UJ
Aroclor-1221 (Dissolved)	ug/L	NA	0.2 UJ	0.2 UJ	0.2 UJ
Aroclor-1232 (Dissolved)	ug/L	NA	0.4 UJ	0.4 UJ	0.4 UJ
Aroclor-1242 (Dissolved)	ug/L	NA	0.2 UJ	0.2 UJ	0.2 UJ

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TABLE A-1
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ORGANIC COMPOUNDS

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SAGINAW, MICHIGAN

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PCBs-Dissolved (Cont'd.)					
Aroclor-1248 (Dissolved)	ug/L	NA	0.2 UJ	0.2 UJ	0.2 UJ
Aroclor-1254 (Dissolved)	ug/L	NA	0.2 UJ	0.2 UJ	0.2 UJ
Aroclor-1260 (Dissolved)	ug/L	NA	0.2 UJ	0.2 UJ	0.2 UJ
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	0.4 U	0.4 U	0.4 U
Organochlorine Pesticides					
4,4'-DDD	ug/L	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA
Aroclor-1016	ug/L	NA	0.2 UJ	0.2 UJ	0.2 UJ
Aroclor-1221	ug/L	NA	0.2 UJ	0.2 UJ	0.2 UJ
Aroclor-1232	ug/L	NA	0.4 UJ	0.4 UJ	0.4 UJ
Aroclor-1242	ug/L	NA	0.2 UJ	0.2 UJ	0.2 UJ
Aroclor-1248	ug/L	NA	0.2 UJ	0.2 UJ	0.2 UJ
Aroclor-1254	ug/L	NA	0.2 UJ	0.2 UJ	0.2 UJ
Aroclor-1260	ug/L	NA	0.2 UJ	0.2 UJ	0.2 UJ
Aroclor-1262	ug/L	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA
Organophosphate Pesticides					
4,4'-DDD	ug/L	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA

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SAGINAW, MICHIGAN

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Organophosphate Pesticides (Cont'd.)					
Alpha-Chlordane	ug/L	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA
Herbicides					
2,4,5-T	ug/L	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA
Dioxins/Furans					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

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Dioxins/Furans (Cont'd.)					
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area MW-125WT 2.5 - 12.5 07/19/95	Previously Proposed Type III Landfill Area MW-125WT 2.5 - 12.5 06/04/96	Previously Proposed Type III Landfill Area TW-219S1 24 - 28 01/27/95	Previously Proposed Type III Landfill Area TW-219S2 37.5 - 41.5 01/27/95
Volatile Organics					
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 UJ	1.0 U	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloropropene	ug/L	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethene (total)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichloropropane	ug/L	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA
2-Butanone	ug/L	50 U	50 U	50 U	50 U
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA
2-Hexanone	ug/L	50 UJ	50 U	50 U	50 U
3-Chloropropene	ug/L	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 UJ	50 U	50 U	50 U
Acetone	ug/L	50 U	100 U	50 U	50 U
Acetonitrile	ug/L	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA
Benzene	ug/L	1.0 U	5.0 U	1.0 U	1.0 U
Bromobenzene	ug/L	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	1.0 UJ	1.0 U	1.0 U	1.0 U
Bromomethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Disulfide	ug/L	50 U	50 U	50 U	50 U
Carbon Tetrachloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area MW-125WT 2.5 - 12.5 07/19/95	Previously Proposed Type III Landfill Area MW-125WT 2.5 - 12.5 06/04/96	Previously Proposed Type III Landfill Area TW-219S1 24 - 28 01/27/95	Previously Proposed Type III Landfill Area TW-219S2 37.5 - 41.5 01/27/95
Volatile Organics (Cont'd.)					
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	NA	NA	NA	NA
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Dibromomethane	ug/L	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA
Methylene Chloride	ug/L	1.0 U	5.0 U	1.0 U	1.0 U
Naphthalene	ug/L	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA
Styrene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA
Tetrachloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 UJ	1.0 U	1.0 U	1.0 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA
Trichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	ug/L	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA
Vinyl Chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Total 1,3-Dichloropropenes	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Total Xylenes	ug/L	3.0 U	3.0 U	3.0 U	3.0 U

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TABLE A-1
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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
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SAGINAW, MICHIGAN

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Semivolatile Organics					
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	6.0 U	5.0 U	5.0 U	5.0 U
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	60 U	50 U	50 U	50 U
2,4,6-Trichlorophenol	ug/L	6.0 U	5.0 U	5.0 U	5.0 U
2,4-Dichlorophenol	ug/L	6.0 U	5.0 U	5.0 U	5.0 U
2,4-Dimethylphenol	ug/L	6.0 U	5.0 U	1.3 J	5.0 U
2,4-Dinitrophenol	ug/L	24 U	20 UJ	20 U	20 U
2,4-Dinitrotoluene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U
2-Chlorophenol	ug/L	6.0 U	5.0 U	5.0 U	5.0 U
2-Methylnaphthalene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U
2-Methylphenol	ug/L	6.0 U	5.0 U	5.0 U	5.0 U
2-Naphthylamine	ug/L	NA	NA	NA	NA
2-Nitroaniline	ug/L	24 U	20 U	20 U	20 U
2-Nitrophenol	ug/L	6.0 U	5.0 U	5.0 U	5.0 U
2-Picoline	ug/L	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	24 U	20 U	20 U	20 U
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA
3-Nitroaniline	ug/L	24 U	20 U	20 U	20 U
4,6-Dinitro-2-methylphenol	ug/L	24 U	20 U	20 U	20 U
4-Aminobiphenyl	ug/L	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	6.0 U	5.0 U	5.0 U	5.0 U
4-Chloro-3-Methylphenol	ug/L	6.0 U	5.0 U	5.0 U	5.0 U
4-Chloroaniline	ug/L	24 U	20 U	20 U	20 U
4-Chlorobenzilate	ug/L	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	6.0 U	5.0 U	5.0 U	5.0 U
4-Methylphenol	ug/L	6.0 U	5.0 U	5.0 U	5.0 U

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TABLE A-1
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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

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Semivolatile Organics (Cont'd.)					
4-Nitroaniline	ug/L	24 U	20 U	20 U	20 U
4-Nitrophenol	ug/L	24 U	20 U	20 U	20 U
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA
Acenaphthene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U
Acenaphthylene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U
Acetophenone	ug/L	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA
Anthracene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U
Atrazine	ug/L	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U
Benzo(a)pyrene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U
Benzo(b)fluoranthene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U
Benzo(g,h,i)perylene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U
Benzo(k)fluoranthene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U
Benzyl Alcohol	ug/L	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	6.0 U	5.0 U	5.0 U	5.0 U
bis(2-Chloroethyl)ether	ug/L	6.0 U	5.0 U	5.0 U	5.0 U
bis(2-Ethylhexyl)phthalate	ug/L	6.0 U	5.0 UJ	1.3 J	5.0 U
Butylbenzylphthalate	ug/L	6.0 U	5.0 U	5.0 U	5.0 U
Caprolactam	ug/L	NA	NA	NA	NA
Carbazole	ug/L	12 U	10 U	5.0 U	5.0 U
Chrysene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U
Diallate	ug/L	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U
Dibenzofuran	ug/L	6.0 U	5.0 U	5.0 U	5.0 U
Diethylphthalate	ug/L	6.0 U	5.0 U	5.0 U	5.0 U
Dimethylphthalate	ug/L	6.0 U	5.0 U	5.0 U	5.0 U
Di-n-Butylphthalate	ug/L	6.0 U	5.0 U	5.0 U	5.0 U
Di-n-Octylphthalate	ug/L	6.0 U	5.0 U	5.0 U	5.0 U
Diphenylamine	ug/L	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA
Fluoranthene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U
Fluorene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobenzene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobutadiene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U
Hexachlorocyclopentadiene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U
Hexachloroethane	ug/L	6.0 U	2.0 U	5.0 U	5.0 U
Hexachloropropene	ug/L	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U

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TABLE A-1
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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

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Semivolatile Organics (Cont'd.)					
Isophorone	ug/L	6.0 U	5.0 U	5.0 U	5.0 U
Isosafrole	ug/L	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA
Naphthalene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U
Nitrobenzene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	6.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosodiphenylamine	ug/L	6.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA
Pentachlorophenol	ug/L	30 U	25 U	20 U	20 U
Phenacetin	ug/L	NA	NA	NA	NA
Phenanthrene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U
Phenol	ug/L	6.0 U	5.0 U	5.0 U	5.0 U
Pronamide	ug/L	NA	NA	NA	NA
Pyrene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U
Pyridine	ug/L	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA
Total Methylphenols	ug/L	6.0 U	5.0 U	5.0 U	5.0 U
PCBs					
Aroclor-1016	ug/L	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA
PCBs-Dissolved					
Aroclor-1016 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1221 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1232 (Dissolved)	ug/L	0.4 U	0.4 U	0.4 U	0.4 U
Aroclor-1242 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U

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PCBs-Dissolved (Cont'd.)					
Aroclor-1248 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1254 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1260 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	0.4 U	0.4 U	0.4 U	0.4 U
Organochlorine Pesticides					
4,4'-DDD	ug/L	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA
Aroclor-1016	ug/L	0.2 U	0.2 U	0.2 U	0.2 UJ
Aroclor-1221	ug/L	0.2 U	0.2 U	0.2 U	0.2 UJ
Aroclor-1232	ug/L	0.4 U	0.4 U	0.4 U	0.4 UJ
Aroclor-1242	ug/L	0.2 U	0.2 U	0.2 U	0.2 UJ
Aroclor-1248	ug/L	0.2 U	0.2 U	0.2 U	0.2 UJ
Aroclor-1254	ug/L	0.2 U	0.2 U	0.2 U	0.2 UJ
Aroclor-1260	ug/L	0.2 U	0.2 U	0.2 U	0.2 UJ
Aroclor-1262	ug/L	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA
Organophosphate Pesticides					
4,4'-DDD	ug/L	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA

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Organophosphate Pesticides (Cont'd.)					
Alpha-Chlordane	ug/L	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA
Herbicides					
2,4,5-T	ug/L	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA
Dioxins/Furans					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area MW-125WT 2.5 - 12.5 07/19/95	Previously Proposed Type III Landfill Area MW-125WT 2.5 - 12.5 06/04/96	Previously Proposed Type III Landfill Area TW-219S1 24 - 28 01/27/95	Previously Proposed Type III Landfill Area TW-219S2 37.5 - 41.5 01/27/95
Dioxins/Furans (Cont'd.)					
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area TW-219WT 4 - 8 01/26/95	Previously Proposed Type III Landfill Area TW-220S1 24 - 28 01/30/95	Previously Proposed Type III Landfill Area TW-220S2 38.5 - 42.5 01/30/95	Previously Proposed Type III Landfill Area TW-220S3 14 - 18 02/01/95
Volatile Organics					
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloropropene	ug/L	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethene (total)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichloropropane	ug/L	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA
2-Butanone	ug/L	50 U	50 U	50 UJ	50 UJ
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA
2-Hexanone	ug/L	50 U	R	R	R
3-Chloropropene	ug/L	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U	50 U	50 U	50 U
Acetone	ug/L	50 U	50 UJ	R	50 UJ
Acetonitrile	ug/L	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA
Benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromobenzene	ug/L	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Disulfide	ug/L	50 U	50 U	50 U	50 U
Carbon Tetrachloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area TW-219WT 4 - 8 01/26/95	Previously Proposed Type III Landfill Area TW-220S1 24 - 28 01/30/95	Previously Proposed Type III Landfill Area TW-220S2 38.5 - 42.5 01/30/95	Previously Proposed Type III Landfill Area TW-220S3 14 - 18 02/01/95
Volatile Organics (Cont'd.)					
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	NA	NA	NA	NA
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Dibromomethane	ug/L	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA
Methylene Chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Naphthalene	ug/L	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA
Styrene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA
Tetrachloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 UJ	1.0 U	1.0 UJ
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA
Trichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	ug/L	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA
Vinyl Chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Total 1,3-Dichloropropenes	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Total Xylenes	ug/L	3.0 U	3.0 U	3.0 U	3.0 U

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area TW-219WT 4 - 8 01/26/95	Previously Proposed Type III Landfill Area TW-220S1 24 - 28 01/30/95	Previously Proposed Type III Landfill Area TW-220S2 38.5 - 42.5 01/30/95	Previously Proposed Type III Landfill Area TW-220S3 14 - 18 02/01/95
Semivolatile Organics					
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.2 U	5.0 U	5.0 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	5.0 UJ	5.2 UJ	5.0 UJ	5.0 U
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	50 U	52 U	50 U	50 U
2,4,6-Trichlorophenol	ug/L	5.0 U	5.2 U	5.0 U	5.0 U
2,4-Dichlorophenol	ug/L	5.0 U	5.2 U	5.0 U	5.0 U
2,4-Dimethylphenol	ug/L	5.0 U	5.2 U	5.0 U	5.0 U
2,4-Dinitrophenol	ug/L	20 U	21 U	20 U	20 U
2,4-Dinitrotoluene	ug/L	5.0 U	5.2 U	5.0 U	5.0 U
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	5.0 U	5.2 U	5.0 U	5.0 U
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	5.0 U	5.2 U	5.0 U	5.0 U
2-Chlorophenol	ug/L	5.0 U	5.2 U	5.0 U	5.0 U
2-Methylnaphthalene	ug/L	5.0 U	5.2 U	5.0 U	5.0 U
2-Methylphenol	ug/L	5.0 U	5.2 U	5.0 U	5.0 U
2-Naphthylamine	ug/L	NA	NA	NA	NA
2-Nitroaniline	ug/L	20 U	21 U	20 U	20 U
2-Nitrophenol	ug/L	5.0 U	5.2 U	5.0 U	5.0 U
2-Picoline	ug/L	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	20 U	21 U	20 U	20 U
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA
3-Nitroaniline	ug/L	20 U	21 U	20 U	20 U
4,6-Dinitro-2-methylphenol	ug/L	20 U	21 U	20 U	20 U
4-Aminobiphenyl	ug/L	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	5.0 U	5.2 U	5.0 U	5.0 U
4-Chloro-3-Methylphenol	ug/L	5.0 U	5.2 U	5.0 U	5.0 U
4-Chloroaniline	ug/L	20 U	21 U	20 U	20 U
4-Chlorobenzilate	ug/L	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	5.0 U	5.2 U	5.0 U	5.0 U
4-Methylphenol	ug/L	5.0 U	5.2 U	5.0 U	5.0 U

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area TW-219WT 4 - 8 01/26/95	Previously Proposed Type III Landfill Area TW-220S1 24 - 28 01/30/95	Previously Proposed Type III Landfill Area TW-220S2 38.5 - 42.5 01/30/95	Previously Proposed Type III Landfill Area TW-220S3 14 - 18 02/01/95
Semivolatile Organics (Cont'd.)					
4-Nitroaniline	ug/L	20 U	21 U	20 U	20 U
4-Nitrophenol	ug/L	20 U	21 U	20 U	20 U
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA
Acenaphthene	ug/L	5.0 U	5.2 U	5.0 U	5.0 U
Acenaphthylene	ug/L	5.0 U	5.2 U	5.0 U	5.0 U
Acetophenone	ug/L	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA
Anthracene	ug/L	5.0 U	5.2 U	5.0 U	5.0 U
Atrazine	ug/L	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	5.0 U	5.2 U	5.0 U	5.0 U
Benzo(a)pyrene	ug/L	5.0 U	5.2 U	5.0 U	5.0 U
Benzo(b)fluoranthene	ug/L	5.0 U	5.2 U	5.0 U	5.0 U
Benzo(g,h,i)perylene	ug/L	5.0 U	5.2 U	5.0 U	5.0 U
Benzo(k)fluoranthene	ug/L	5.0 U	5.2 U	5.0 U	5.0 U
Benzyl Alcohol	ug/L	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	5.0 U	5.2 U	5.0 U	5.0 U
bis(2-Chloroethyl)ether	ug/L	5.0 U	5.2 U	5.0 U	5.0 U
bis(2-Ethylhexyl)phthalate	ug/L	2.8 J	5.1 J	5.0 U	5.0 U
Butylbenzylphthalate	ug/L	5.0 U	5.2 U	5.0 U	5.0 U
Caprolactam	ug/L	NA	NA	NA	NA
Carbazole	ug/L	5.0 U	5.2 U	5.0 U	5.0 U
Chrysene	ug/L	5.0 U	5.2 U	5.0 U	5.0 U
Diallate	ug/L	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	5.0 U	5.2 U	5.0 U	5.0 U
Dibenzofuran	ug/L	5.0 U	5.2 U	5.0 U	5.0 U
Diethylphthalate	ug/L	5.0 U	5.2 U	5.0 U	5.0 U
Dimethylphthalate	ug/L	5.0 U	5.2 U	5.0 U	5.0 U
Di-n-Butylphthalate	ug/L	5.0 U	5.2 U	5.0 U	5.0 U
Di-n-Octylphthalate	ug/L	5.0 U	5.2 U	5.0 U	5.0 U
Diphenylamine	ug/L	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA
Fluoranthene	ug/L	5.0 U	5.2 U	5.0 U	5.0 U
Fluorene	ug/L	5.0 U	5.2 U	5.0 U	5.0 U
Hexachlorobenzene	ug/L	5.0 U	5.2 U	5.0 U	5.0 U
Hexachlorobutadiene	ug/L	5.0 U	5.2 U	5.0 U	5.0 U
Hexachlorocyclopentadiene	ug/L	5.0 U	5.2 U	5.0 U	5.0 U
Hexachloroethane	ug/L	5.0 U	5.2 U	5.0 U	5.0 U
Hexachloropropene	ug/L	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	5.0 U	5.2 U	5.0 U	5.0 U

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area TW-219WT 4 - 8 01/26/95	Previously Proposed Type III Landfill Area TW-220S1 24 - 28 01/30/95	Previously Proposed Type III Landfill Area TW-220S2 38.5 - 42.5 01/30/95	Previously Proposed Type III Landfill Area TW-220S3 14 - 18 02/01/95
Semivolatile Organics (Cont'd.)					
Isophorone	ug/L	5.0 U	5.2 U	5.0 U	5.0 U
Isosafrole	ug/L	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA
Naphthalene	ug/L	5.0 U	5.2 U	5.0 U	5.0 U
Nitrobenzene	ug/L	5.0 U	5.2 U	5.0 U	5.0 U
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	5.0 UJ	5.2 U	5.0 UJ	5.0 U
N-Nitrosodiphenylamine	ug/L	5.0 U	5.2 U	5.0 U	5.0 U
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA
Pentachlorophenol	ug/L	20 U	21 U	20 U	20 U
Phenacetin	ug/L	NA	NA	NA	NA
Phenanthrene	ug/L	5.0 U	5.2 U	5.0 U	5.0 U
Phenol	ug/L	5.0 U	5.2 U	5.0 U	5.0 U
Pronamide	ug/L	NA	NA	NA	NA
Pyrene	ug/L	5.0 U	5.2 U	5.0 U	5.0 U
Pyridine	ug/L	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA
Total Methylphenols	ug/L	5.0 U	5.2 U	5.0 U	5.0 U
PCBs					
Aroclor-1016	ug/L	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA
PCBs-Dissolved					
Aroclor-1016 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1221 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1232 (Dissolved)	ug/L	0.4 U	0.4 U	0.4 U	0.4 U
Aroclor-1242 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area TW-219WT 4 - 8 01/26/95	Previously Proposed Type III Landfill Area TW-220S1 24 - 28 01/30/95	Previously Proposed Type III Landfill Area TW-220S2 38.5 - 42.5 01/30/95	Previously Proposed Type III Landfill Area TW-220S3 14 - 18 02/01/95
PCBs-Dissolved (Cont'd.)					
Aroclor-1248 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1254 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1260 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	0.4 U	0.4 U	0.4 U	0.4 U
Organochlorine Pesticides					
4,4'-DDD	ug/L	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA
Aroclor-1016	ug/L	0.2 U	0.2 U	0.2 U	0.2 UJ
Aroclor-1221	ug/L	0.2 U	0.2 U	0.2 U	0.2 UJ
Aroclor-1232	ug/L	0.4 U	0.4 U	0.4 U	0.4 UJ
Aroclor-1242	ug/L	0.2 U	0.2 U	0.2 U	0.2 UJ
Aroclor-1248	ug/L	0.2 U	0.2 U	0.2 U	0.2 UJ
Aroclor-1254	ug/L	0.2 U	0.2 U	0.2 U	0.2 UJ
Aroclor-1260	ug/L	0.2 U	0.2 U	0.2 U	0.2 UJ
Aroclor-1262	ug/L	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA
Organophosphate Pesticides					
4,4'-DDD	ug/L	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA

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TABLE A-1
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SAGINAW, MICHIGAN

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Organophosphate Pesticides (Cont'd.)					
Alpha-Chlordane	ug/L	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA
Herbicides					
2,4,5-T	ug/L	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA
Dioxins/Furans					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA

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Dioxins/Furans (Cont'd.)					
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA

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Volatile Organics					
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
1,1-Dichloropropene	ug/L	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
1,2-Dichloroethene (total)	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
1,3-Dichloropropane	ug/L	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
1,4-Dioxane	ug/L	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA
2-Butanone	ug/L	50 UJ	50 U	50 UJ [50 UJ]	50 U
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA
2-Hexanone	ug/L	R	R	R [R]	R
3-Chloropropene	ug/L	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U	50 U	50 U [50 U]	50 U
Acetone	ug/L	R	50 UJ	50 UJ [50 UJ]	50 UJ
Acetonitrile	ug/L	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA
Benzene	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
Bromobenzene	ug/L	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.6 [1.4]	1.0 U
Bromoform	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
Bromomethane	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
Carbon Disulfide	ug/L	50 U	50 U	50 U [50 U]	50 U
Carbon Tetrachloride	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U

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Volatile Organics (Cont'd.)					
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
Chloroform	ug/L	1.0 U	1.3	3.0 [2.7]	1.3
Chloromethane	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
Cyclohexane	ug/L	NA	NA	NA	NA
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
Dibromomethane	ug/L	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA
Methylene Chloride	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
Naphthalene	ug/L	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA
Styrene	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA
Tetrachloroethene	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
Toluene	ug/L	1.0 U	1.0 U	1.4 [1.4]	1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 UJ	1.0 UJ [1.0 UJ]	1.0 UJ
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA
Trichloroethene	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
Trichlorofluoromethane	ug/L	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA
Vinyl Chloride	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
Total 1,3-Dichloropropenes	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
Total Xylenes	ug/L	3.0 U	3.0 U	3.0 U [3.0 U]	3.0 U

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Semivolatile Organics					
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	5.0 UJ	5.0 U	5.0 U [5.0 U]	5.0 U
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	50 U	50 U	50 U [50 U]	50 U
2,4,6-Trichlorophenol	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
2,4-Dichlorophenol	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
2,4-Dimethylphenol	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
2,4-Dinitrophenol	ug/L	20 U	20 U	20 U [20 U]	20 U
2,4-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
2-Chlorophenol	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
2-Methylnaphthalene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
2-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
2-Naphthylamine	ug/L	NA	NA	NA	NA
2-Nitroaniline	ug/L	20 U	20 U	20 U [20 U]	20 U
2-Nitrophenol	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
2-Picoline	ug/L	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	20 U	20 U	20 U [20 U]	20 U
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA
3-Nitroaniline	ug/L	20 U	20 U	20 U [20 U]	20 U
4,6-Dinitro-2-methylphenol	ug/L	20 U	20 U	20 U [20 U]	20 U
4-Aminobiphenyl	ug/L	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
4-Chloro-3-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
4-Chloroaniline	ug/L	20 U	20 U	20 U [20 U]	20 U
4-Chlorobenzilate	ug/L	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
4-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area TW-220WT 4 - 8 01/30/95	Previously Proposed Type III Landfill Area TW-221S1 23 - 27 01/31/95	Previously Proposed Type III Landfill Area TW-221S2 37 - 40 01/31/95	Previously Proposed Type III Landfill Area TW-221S3 38 - 42 02/01/95
Semivolatile Organics (Cont'd.)					
4-Nitroaniline	ug/L	20 U	20 U	20 U [20 U]	20 U
4-Nitrophenol	ug/L	20 U	20 U	20 U [20 U]	20 U
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA
Acenaphthene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
Acenaphthylene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
Acetophenone	ug/L	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA
Anthracene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
Atrazine	ug/L	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
Benzo(a)pyrene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
Benzo(b)fluoranthene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
Benzo(g,h,i)perylene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
Benzo(k)fluoranthene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
Benzyl Alcohol	ug/L	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
bis(2-Chloroethyl)ether	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
bis(2-Ethylhexyl)phthalate	ug/L	12	5.0 U	5.0 U [5.0 U]	5.0 U
Butylbenzylphthalate	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
Caprolactam	ug/L	NA	NA	NA	NA
Carbazole	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
Chrysene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
Diallate	ug/L	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
Dibenzofuran	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
Diethylphthalate	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
Dimethylphthalate	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
Di-n-Butylphthalate	ug/L	5.0 U	0.51 J	5.0 U [5.0 U]	1.1 J
Di-n-Octylphthalate	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
Diphenylamine	ug/L	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA
Fluoranthene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
Fluorene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
Hexachlorobenzene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
Hexachlorobutadiene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
Hexachlorocyclopentadiene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
Hexachloroethane	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
Hexachloropropene	ug/L	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area TW-220WT 4 - 8 01/30/95	Previously Proposed Type III Landfill Area TW-221S1 23 - 27 01/31/95	Previously Proposed Type III Landfill Area TW-221S2 37 - 40 01/31/95	Previously Proposed Type III Landfill Area TW-221S3 38 - 42 02/01/95
Semivolatile Organics (Cont'd.)					
Isophorone	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
Isosafrole	ug/L	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA
Naphthalene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
Nitrobenzene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	5.0 UJ	5.0 U	5.0 U [5.0 U]	5.0 U
N-Nitrosodiphenylamine	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA
Pentachlorophenol	ug/L	20 U	20 U	20 U [20 U]	20 U
Phenacetin	ug/L	NA	NA	NA	NA
Phenanthrene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
Phenol	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
Pronamide	ug/L	NA	NA	NA	NA
Pyrene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
Pyridine	ug/L	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA
Total Methylphenols	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
PCBs					
Aroclor-1016	ug/L	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA
PCBs-Dissolved					
Aroclor-1016 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U
Aroclor-1221 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U
Aroclor-1232 (Dissolved)	ug/L	0.4 U	0.4 U	0.4 U [0.4 U]	0.4 U
Aroclor-1242 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U

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SAGINAW, MICHIGAN

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PCBs-Dissolved (Cont'd.)					
Aroclor-1248 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U
Aroclor-1254 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U
Aroclor-1260 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	0.4 U	0.4 U	0.4 U [0.4 U]	0.4 U
Organochlorine Pesticides					
4,4'-DDD	ug/L	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA
Aroclor-1016	ug/L	0.2 UJ	0.2 U	0.2 U [0.2 U]	0.2 U
Aroclor-1221	ug/L	0.2 UJ	0.2 U	0.2 U [0.2 U]	0.2 U
Aroclor-1232	ug/L	0.4 UJ	0.4 U	0.4 U [0.4 U]	0.4 U
Aroclor-1242	ug/L	0.2 UJ	0.2 U	0.2 U [0.2 U]	0.2 U
Aroclor-1248	ug/L	0.2 UJ	0.2 U	0.2 U [0.2 U]	0.2 U
Aroclor-1254	ug/L	0.2 UJ	0.2 U	0.2 U [0.2 U]	0.2 U
Aroclor-1260	ug/L	0.2 UJ	0.2 U	0.2 U [0.2 U]	0.2 U
Aroclor-1262	ug/L	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA
Organophosphate Pesticides					
4,4'-DDD	ug/L	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA

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Organophosphate Pesticides (Cont'd.)					
Alpha-Chlordane	ug/L	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA
Herbicides					
2,4,5-T	ug/L	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA
Dioxins/Furans					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA

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Dioxins/Furans (Cont'd.)					
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA

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SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area TW-221S4 02/01/95	Previously Proposed Type III Landfill Area TW-221WT 3 - 7 01/30/95	Previously Proposed Type III Landfill Area TW-222S1 01/31/95	Previously Proposed Type III Landfill Area TW-222S2 01/31/95
Volatile Organics					
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloropropene	ug/L	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethene (total)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichloropropane	ug/L	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA
2-Butanone	ug/L	50 U	50 UJ	50 U	50 UJ
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA
2-Hexanone	ug/L	R	R	R	R
3-Chloropropene	ug/L	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U	50 U	50 U	50 U
Acetone	ug/L	50 UJ	R	50 UJ	50 UJ
Acetonitrile	ug/L	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA
Benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromobenzene	ug/L	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Disulfide	ug/L	50 U	1.4 J	50 U	50 U
Carbon Tetrachloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area TW-221S4 02/01/95	Previously Proposed Type III Landfill Area TW-221WT 3 - 7 01/30/95	Previously Proposed Type III Landfill Area TW-222S1 01/31/95	Previously Proposed Type III Landfill Area TW-222S2 01/31/95
Volatile Organics (Cont'd.)					
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	NA	NA	NA	NA
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Dibromomethane	ug/L	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA
Methylene Chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Naphthalene	ug/L	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA
Styrene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA
Tetrachloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 UJ	1.0 U	1.0 UJ	1.0 UJ
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA
Trichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	ug/L	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA
Vinyl Chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Total 1,3-Dichloropropenes	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Total Xylenes	ug/L	3.0 U	3.0 U	3.0 U	3.0 U

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SAGINAW, MICHIGAN

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Semivolatile Organics					
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	50 U	50 U	50 U	50 U
2,4,6-Trichlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dichlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dimethylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dinitrophenol	ug/L	20 U	20 U	20 U	20 U
2,4-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2-Chlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2-Methylnaphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2-Naphthylamine	ug/L	NA	NA	NA	NA
2-Nitroaniline	ug/L	20 U	20 U	20 U	20 U
2-Nitrophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2-Picoline	ug/L	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	20 U	20 U	20 U	20 U
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA
3-Nitroaniline	ug/L	20 U	20 U	20 U	20 U
4,6-Dinitro-2-methylphenol	ug/L	20 U	20 U	20 U	20 U
4-Aminobiphenyl	ug/L	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloro-3-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloroaniline	ug/L	20 U	20 U	20 U	20 U
4-Chlorobenzilate	ug/L	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U

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SAGINAW, MICHIGAN

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Semivolatile Organics (Cont'd.)					
4-Nitroaniline	ug/L	20 U	20 U	20 U	20 U
4-Nitrophenol	ug/L	20 U	20 U	20 U	20 U
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA
Acenaphthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Acenaphthylene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Acetophenone	ug/L	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA
Anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Atrazine	ug/L	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(a)pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(b)fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(g,h,i)perylene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(k)fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Benzyl Alcohol	ug/L	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Chloroethyl)ether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Ethylhexyl)phthalate	ug/L	5.0 U	5.0 U	0.54 J	5.0 U
Butylbenzylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Caprolactam	ug/L	NA	NA	NA	NA
Carbazole	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Chrysene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Diallate	ug/L	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Dibenzofuran	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Diethylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Dimethylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Di-n-Butylphthalate	ug/L	5.0 U	5.0 U	2.1 J	5.0 U
Di-n-Octylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Diphenylamine	ug/L	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA
Fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Fluorene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobutadiene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorocyclopentadiene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Hexachloroethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Hexachloropropene	ug/L	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U

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Semivolatile Organics (Cont'd.)					
Isophorone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Isosafrole	ug/L	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA
Naphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Nitrobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosodiphenylamine	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA
Pentachlorophenol	ug/L	20 U	20 U	20 U	20 U
Phenacetin	ug/L	NA	NA	NA	NA
Phenanthrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Phenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Pronamide	ug/L	NA	NA	NA	NA
Pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Pyridine	ug/L	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA
Total Methylphenols	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
PCBs					
Aroclor-1016	ug/L	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA
PCBs-Dissolved					
Aroclor-1016 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1221 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1232 (Dissolved)	ug/L	0.4 U	0.4 U	0.4 U	0.4 U
Aroclor-1242 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U

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PCBs-Dissolved (Cont'd.)					
Aroclor-1248 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1254 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1260 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	0.4 U	0.4 U	0.4 U	0.4 U
Organochlorine Pesticides					
4,4'-DDD	ug/L	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA
Aroclor-1016	ug/L	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1221	ug/L	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1232	ug/L	0.4 U	0.4 U	0.4 U	0.4 U
Aroclor-1242	ug/L	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1248	ug/L	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1254	ug/L	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1260	ug/L	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1262	ug/L	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA
Organophosphate Pesticides					
4,4'-DDD	ug/L	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA

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Organophosphate Pesticides (Cont'd.)					
Alpha-Chlordane	ug/L	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA
Herbicides					
2,4,5-T	ug/L	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA
Dioxins/Furans					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area TW-221S4 02/01/95	Previously Proposed Type III Landfill Area TW-221WT 3 - 7 01/30/95	Previously Proposed Type III Landfill Area TW-222S1 01/31/95	Previously Proposed Type III Landfill Area TW-222S2 01/31/95
Dioxins/Furans (Cont'd.)					
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area TW-222S3 01/31/95	Previously Proposed Type III Landfill Area TW-222WT 01/31/95	Previously Proposed Type III Landfill Area TW-227WT 02/03/95	Previously Proposed Type III Landfill Area X-13AR 2 - 12 07/18/95
Volatile Organics					
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloropropene	ug/L	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethene (total)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichloropropane	ug/L	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA
2-Butanone	ug/L	50 UJ	50 UJ	50 U	50 UJ
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA
2-Hexanone	ug/L	R	R	R	50 U
3-Chloropropene	ug/L	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U	50 U	50 U	50 UJ
Acetone	ug/L	50 UJ	R	R	50 UJ
Acetonitrile	ug/L	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA
Benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromobenzene	ug/L	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Disulfide	ug/L	50 U	50 U	50 U	50 U
Carbon Tetrachloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area TW-222S3 01/31/95	Previously Proposed Type III Landfill Area TW-222WT 01/31/95	Previously Proposed Type III Landfill Area TW-227WT 02/03/95	Previously Proposed Type III Landfill Area X-13AR 2 - 12 07/18/95
Volatile Organics (Cont'd.)					
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	NA	NA	NA	NA
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Dibromomethane	ug/L	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA
Methylene Chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Naphthalene	ug/L	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA
Styrene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA
Tetrachloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 UJ	1.0 U	1.0 U	1.0 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA
Trichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	ug/L	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA
Vinyl Chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Total 1,3-Dichloropropenes	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Total Xylenes	ug/L	3.0 U	3.0 U	3.0 U	3.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area TW-222S3 01/31/95	Previously Proposed Type III Landfill Area TW-222WT 01/31/95	Previously Proposed Type III Landfill Area TW-227WT 02/03/95	Previously Proposed Type III Landfill Area X-13AR 2 - 12 07/18/95
Semivolatile Organics					
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	50 U	50 U	50 U	50 U
2,4,6-Trichlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dichlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dimethylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dinitrophenol	ug/L	20 U	20 U	20 U	20 U
2,4-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2-Chlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2-Methylnaphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2-Naphthylamine	ug/L	NA	NA	NA	NA
2-Nitroaniline	ug/L	20 U	20 U	20 U	20 U
2-Nitrophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2-Picoline	ug/L	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	20 U	20 U	20 U	20 U
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA
3-Nitroaniline	ug/L	20 U	20 U	20 U	20 U
4,6-Dinitro-2-methylphenol	ug/L	20 U	20 U	20 U	20 U
4-Aminobiphenyl	ug/L	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloro-3-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloroaniline	ug/L	20 U	20 U	20 U	20 U
4-Chlorobenzilate	ug/L	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area TW-222S3 01/31/95	Previously Proposed Type III Landfill Area TW-222WT 01/31/95	Previously Proposed Type III Landfill Area TW-227WT 02/03/95	Previously Proposed Type III Landfill Area X-13AR 2 - 12 07/18/95
Semivolatile Organics (Cont'd.)					
4-Nitroaniline	ug/L	20 U	20 U	20 U	20 UJ
4-Nitrophenol	ug/L	20 U	20 U	20 U	20 UJ
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA
Acenaphthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Acenaphthylene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Acetophenone	ug/L	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA
Anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Atrazine	ug/L	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(a)pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(b)fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(g,h,i)perylene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(k)fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Benzyl Alcohol	ug/L	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Chloroethyl)ether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Ethylhexyl)phthalate	ug/L	5.0 U	5.0 U	1.9 J	76 B
Butylbenzylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Caprolactam	ug/L	NA	NA	NA	NA
Carbazole	ug/L	5.0 U	5.0 U	5.0 U	10 U
Chrysene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Diallate	ug/L	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Dibenzofuran	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Diethylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Dimethylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Di-n-Butylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Di-n-Octylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Diphenylamine	ug/L	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA
Fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Fluorene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobutadiene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorocyclopentadiene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Hexachloroethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Hexachloropropene	ug/L	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area TW-222S3 01/31/95	Previously Proposed Type III Landfill Area TW-222WT 01/31/95	Previously Proposed Type III Landfill Area TW-227WT 02/03/95	Previously Proposed Type III Landfill Area X-13AR 2 - 12 07/18/95
Semivolatile Organics (Cont'd.)					
Isophorone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Isosafrole	ug/L	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA
Naphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Nitrobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosodiphenylamine	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA
Pentachlorophenol	ug/L	20 U	20 U	20 U	25 U
Phenacetin	ug/L	NA	NA	NA	NA
Phenanthrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Phenol	ug/L	5.0 U	5.0 U	5.0 U	0.90 J
Pronamide	ug/L	NA	NA	NA	NA
Pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Pyridine	ug/L	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA
Total Methylphenols	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
PCBs					
Aroclor-1016	ug/L	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA
PCBs-Dissolved					
Aroclor-1016 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1221 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1232 (Dissolved)	ug/L	0.4 U	0.4 U	0.4 U	0.4 U
Aroclor-1242 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area TW-222S3 01/31/95	Previously Proposed Type III Landfill Area TW-222WT 01/31/95	Previously Proposed Type III Landfill Area TW-227WT 02/03/95	Previously Proposed Type III Landfill Area X-13AR 2 - 12 07/18/95
PCBs-Dissolved (Cont'd.)					
Aroclor-1248 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1254 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1260 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	0.4 U	0.4 U	0.4 U	0.4 U
Organochlorine Pesticides					
4,4'-DDD	ug/L	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA
Aroclor-1016	ug/L	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1221	ug/L	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1232	ug/L	0.4 U	0.4 U	0.4 U	0.4 U
Aroclor-1242	ug/L	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1248	ug/L	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1254	ug/L	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1260	ug/L	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1262	ug/L	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA
Organophosphate Pesticides					
4,4'-DDD	ug/L	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

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Organophosphate Pesticides (Cont'd.)					
Alpha-Chlordane	ug/L	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA
Herbicides					
2,4,5-T	ug/L	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA
Dioxins/Furans					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA

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SAGINAW, MICHIGAN

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Dioxins/Furans (Cont'd.)					
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA

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SAGINAW, MICHIGAN

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Volatile Organics					
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	NA	NA	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	NA	NA	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	NA	NA	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	NA	NA	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	NA	NA	1.0 U	1.0 U
1,1-Dichloropropene	ug/L	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	5.0 U	NA	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	NA	NA	1.0 U	1.0 U
1,2-Dichloroethene (total)	ug/L	NA	NA	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	NA	NA	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	5.0 U	NA	1.0 U	1.0 U
1,3-Dichloropropane	ug/L	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	5.0 U	NA	1.0 U	1.0 U
1,4-Dioxane	ug/L	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA
2-Butanone	ug/L	NA	NA	50 UJ	50 UJ
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA
2-Hexanone	ug/L	NA	NA	50 U	50 U
3-Chloropropene	ug/L	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	NA	NA	50 UJ	50 UJ
Acetone	ug/L	NA	NA	50 UJ	50 UJ
Acetonitrile	ug/L	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA
Benzene	ug/L	NA	NA	1.0 U	1.0 U
Bromobenzene	ug/L	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA
Bromodichloromethane	ug/L	NA	NA	1.0 U	1.0 U
Bromoform	ug/L	NA	NA	1.0 U	1.0 U
Bromomethane	ug/L	NA	NA	1.0 U	1.0 U
Carbon Disulfide	ug/L	NA	NA	50 U	50 U
Carbon Tetrachloride	ug/L	NA	NA	1.0 U	1.0 U
Chlorobenzene	ug/L	NA	NA	1.0 U	1.0 U

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SAGINAW, MICHIGAN

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Volatile Organics (Cont'd.)					
Chloroethane	ug/L	NA	NA	1.0 U	1.0 U
Chloroform	ug/L	NA	NA	1.0 U	1.0 U
Chloromethane	ug/L	NA	NA	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	NA	NA	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	NA	NA	1.0 U	1.0 U
Cyclohexane	ug/L	NA	NA	NA	NA
Dibromochloromethane	ug/L	NA	NA	1.0 U	1.0 U
Dibromomethane	ug/L	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA
Ethylbenzene	ug/L	NA	NA	1.0 U	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA
Methylene Chloride	ug/L	NA	NA	1.0 U	1.0 U
Naphthalene	ug/L	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA
Styrene	ug/L	NA	NA	1.0 U	1.0 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA
Tetrachloroethene	ug/L	NA	NA	1.0 U	1.0 U
Toluene	ug/L	NA	NA	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	NA	NA	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	NA	NA	1.0 U	1.0 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA
Trichloroethene	ug/L	NA	NA	1.0 U	1.0 U
Trichlorofluoromethane	ug/L	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA
Vinyl Chloride	ug/L	NA	NA	1.0 U	1.0 U
Total 1,3-Dichloropropenes	ug/L	NA	NA	1.0 U	1.0 U
Total Xylenes	ug/L	NA	NA	3.0 U	3.0 U

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SAGINAW, MICHIGAN

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Semivolatile Organics					
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	1.0 U	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	1.0 U	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	1.0 U	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	50 U	5.0 U	50 U	50 U
2,4,6-Trichlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dichlorophenol	ug/L	5.0 U	10 U	5.0 U	5.0 U
2,4-Dimethylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dinitrophenol	ug/L	20 U	20 U	20 U	20 U
2,4-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2-Chlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2-Methylnaphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2-Naphthylamine	ug/L	NA	NA	NA	NA
2-Nitroaniline	ug/L	20 U	20 U	20 U	20 U
2-Nitrophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2-Picoline	ug/L	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	20 U	20 U	20 U	20 U
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA
3-Nitroaniline	ug/L	20 U	20 U	20 U	20 U
4,6-Dinitro-2-methylphenol	ug/L	20 U	20 U	20 U	20 U
4-Aminobiphenyl	ug/L	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloro-3-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloroaniline	ug/L	20 U	10 U	20 U	20 U
4-Chlorobenzilate	ug/L	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U

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SAGINAW, MICHIGAN

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Semivolatile Organics (Cont'd.)					
4-Nitroaniline	ug/L	20 U	20 U	20 UJ	20 UJ
4-Nitrophenol	ug/L	20 U	20 U	20 UJ	20 UJ
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA
Acenaphthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Acenaphthylene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Acetophenone	ug/L	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA
Anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Atrazine	ug/L	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(a)pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(b)fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(g,h,i)perylene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(k)fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Benzyl Alcohol	ug/L	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Chloroethyl)ether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Ethylhexyl)phthalate	ug/L	5.0 U	5.0 U	0.58 U	1.4 U
Butylbenzylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Caprolactam	ug/L	NA	NA	NA	NA
Carbazole	ug/L	10 U	10 U	10 U	10 U
Chrysene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Diallate	ug/L	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Dibenzofuran	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Diethylphthalate	ug/L	5.0 U	5.0 U	5.0 U	7.6
Dimethylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Di-n-Butylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Di-n-Octylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Diphenylamine	ug/L	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA
Fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Fluorene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobutadiene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorocyclopentadiene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Hexachloroethane	ug/L	2.0 U	5.0 U	5.0 U	5.0 U
Hexachloropropene	ug/L	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area X-13AR 2 - 12 06/08/96	Previously Proposed Type III Landfill Area X-13AR 2 - 12 05/20/00	Previously Proposed Type III Landfill Area X-13B 19.9 - 22.9 07/18/95	Previously Proposed Type III Landfill Area X-13CAUG 36.2 - 41.2 07/18/95
Semivolatile Organics (Cont'd.)					
Isophorone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Isosafrole	ug/L	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA
Naphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Nitrobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosodiphenylamine	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA
Pentachlorophenol	ug/L	25 U	1.0 U	25 U	25 U
Phenacetin	ug/L	NA	NA	NA	NA
Phenanthrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Phenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Pronamide	ug/L	NA	NA	NA	NA
Pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Pyridine	ug/L	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA
Total Methylphenols	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
PCBs					
Aroclor-1016	ug/L	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA
PCBs-Dissolved					
Aroclor-1016 (Dissolved)	ug/L	NA	NA	0.2 U	0.2 U
Aroclor-1221 (Dissolved)	ug/L	NA	NA	0.2 U	0.2 U
Aroclor-1232 (Dissolved)	ug/L	NA	NA	0.4 U	0.4 U
Aroclor-1242 (Dissolved)	ug/L	NA	NA	0.2 U	0.2 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area X-13AR 2 - 12 06/08/96	Previously Proposed Type III Landfill Area X-13AR 2 - 12 05/20/00	Previously Proposed Type III Landfill Area X-13B 19.9 - 22.9 07/18/95	Previously Proposed Type III Landfill Area X-13CAUG 36.2 - 41.2 07/18/95
PCBs-Dissolved (Cont'd.)					
Aroclor-1248 (Dissolved)	ug/L	NA	NA	0.2 U	0.2 U
Aroclor-1254 (Dissolved)	ug/L	NA	NA	0.2 U	0.2 U
Aroclor-1260 (Dissolved)	ug/L	NA	NA	0.2 U	0.2 U
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	0.4 U	0.4 U
Organochlorine Pesticides					
4,4'-DDD	ug/L	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA
Aroclor-1016	ug/L	NA	NA	0.2 U	0.2 U
Aroclor-1221	ug/L	NA	NA	0.2 U	0.2 U
Aroclor-1232	ug/L	NA	NA	0.4 U	0.4 U
Aroclor-1242	ug/L	NA	NA	0.2 U	0.2 U
Aroclor-1248	ug/L	NA	NA	0.2 U	0.2 U
Aroclor-1254	ug/L	NA	NA	0.2 U	0.2 U
Aroclor-1260	ug/L	NA	NA	0.2 U	0.2 U
Aroclor-1262	ug/L	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA
Organophosphate Pesticides					
4,4'-DDD	ug/L	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA

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Organophosphate Pesticides (Cont'd.)					
Alpha-Chlordane	ug/L	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA
Herbicides					
2,4,5-T	ug/L	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA
Dioxins/Furans					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA

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SAGINAW, MICHIGAN

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Dioxins/Furans (Cont'd.)					
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA

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SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area X-13CAUG 36.2 - 41.2 06/08/96	Previously Proposed Type III Landfill Area X-14A 2.8 - 5.8 07/18/95	Previously Proposed Type III Landfill Area X-14B 21.3 - 24.3 07/18/95	Previously Proposed Type III Landfill Area X-14CAUG 26 - 31 07/18/95
Volatile Organics					
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	NA	1.0 U	1.0 U	1.0 U
1,1-Dichloropropene	ug/L	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	5.0 U [5.0 U]	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U
1,2-Dichloroethene (total)	ug/L	NA	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	NA	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	5.0 U [5.0 U]	1.0 U	1.0 U	1.0 U
1,3-Dichloropropane	ug/L	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	5.0 U [5.0 U]	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA
2-Butanone	ug/L	NA	50 UJ	50 U	50 U
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA
2-Hexanone	ug/L	NA	50 U	50 U	50 U
3-Chloropropene	ug/L	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	NA	50 UJ	50 U	50 U
Acetone	ug/L	NA	50 UJ	50 U	50 U
Acetonitrile	ug/L	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA
Benzene	ug/L	NA	1.0 U	1.0 U	1.0 U
Bromobenzene	ug/L	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA
Bromodichloromethane	ug/L	NA	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	NA	1.0 U	1.0 U	1.0 U
Bromomethane	ug/L	NA	1.0 U	1.0 U	1.0 U
Carbon Disulfide	ug/L	NA	50 U	50 U	50 U
Carbon Tetrachloride	ug/L	NA	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	NA	1.0 U	1.0 U	1.0 U

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SAGINAW, MICHIGAN

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Volatile Organics (Cont'd.)					
Chloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U
Chloroform	ug/L	NA	1.0 U	1.0 U	1.0 U
Chloromethane	ug/L	NA	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	NA	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	NA	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	NA	NA	NA	NA
Dibromochloromethane	ug/L	NA	1.0 U	1.0 U	1.0 U
Dibromomethane	ug/L	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA
Ethylbenzene	ug/L	NA	1.0 U	1.0 U	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA
Methylene Chloride	ug/L	NA	1.0 U	1.0 U	1.0 U
Naphthalene	ug/L	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA
Styrene	ug/L	NA	1.0 U	1.0 U	1.0 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA
Tetrachloroethene	ug/L	NA	1.0 U	1.0 U	1.0 U
Toluene	ug/L	NA	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	NA	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	NA	1.0 U	1.0 U	1.0 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA
Trichloroethene	ug/L	NA	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	ug/L	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA
Vinyl Chloride	ug/L	NA	1.0 U	1.0 U	1.0 U
Total 1,3-Dichloropropenes	ug/L	NA	1.0 U	1.0 U	1.0 U
Total Xylenes	ug/L	NA	3.0 U	3.0 U	3.0 U

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SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area X-13CAUG 36.2 - 41.2 06/08/96	Previously Proposed Type III Landfill Area X-14A 2.8 - 5.8 07/18/95	Previously Proposed Type III Landfill Area X-14B 21.3 - 24.3 07/18/95	Previously Proposed Type III Landfill Area X-14CAUG 26 - 31 07/18/95
Semivolatile Organics					
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	50 U [50 U]	50 U	50 U	50 U
2,4,6-Trichlorophenol	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
2,4-Dichlorophenol	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
2,4-Dimethylphenol	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
2,4-Dinitrophenol	ug/L	20 U [20 U]	20 U	20 U	20 U
2,4-Dinitrotoluene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
2-Chlorophenol	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
2-Methylnaphthalene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
2-Methylphenol	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
2-Naphthylamine	ug/L	NA	NA	NA	NA
2-Nitroaniline	ug/L	20 U [20 U]	20 U	20 U	20 U
2-Nitrophenol	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
2-Picoline	ug/L	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	20 U [20 U]	20 U	20 U	20 U
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA
3-Nitroaniline	ug/L	20 U [20 U]	20 U	20 U	20 U
4,6-Dinitro-2-methylphenol	ug/L	20 U [20 U]	20 U	20 U	20 U
4-Aminobiphenyl	ug/L	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
4-Chloro-3-Methylphenol	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
4-Chloroaniline	ug/L	20 U [20 U]	20 U	20 U	20 U
4-Chlorobenzilate	ug/L	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
4-Methylphenol	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

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Semivolatile Organics (Cont'd.)					
4-Nitroaniline	ug/L	20 U [20 U]	20 U	20 U	20 U
4-Nitrophenol	ug/L	20 U [20 U]	20 U	20 UJ	20 UJ
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA
Acenaphthene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Acenaphthylene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Acetophenone	ug/L	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA
Anthracene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Atrazine	ug/L	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Benzo(a)pyrene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Benzo(b)fluoranthene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Benzo(g,h,i)perylene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Benzo(k)fluoranthene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Benzyl Alcohol	ug/L	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
bis(2-Chloroethyl)ether	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
bis(2-Ethylhexyl)phthalate	ug/L	1.1 J [5.0 U]	2.6 U	5.0 U	7.7 U
Butylbenzylphthalate	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	24
Caprolactam	ug/L	NA	NA	NA	NA
Carbazole	ug/L	10 U [10 U]	10 U	10 U	10 U
Chrysene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Diallate	ug/L	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Dibenzofuran	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Diethylphthalate	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	0.59 J
Dimethylphthalate	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Di-n-Butylphthalate	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	0.88 J
Di-n-Octylphthalate	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Diphenylamine	ug/L	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA
Fluoranthene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Fluorene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Hexachlorobenzene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Hexachlorobutadiene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Hexachlorocyclopentadiene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Hexachloroethane	ug/L	2.0 U [2.0 U]	5.0 U	5.0 U	5.0 U
Hexachloropropene	ug/L	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U

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Semivolatile Organics (Cont'd.)					
Isophorone	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Isosafrole	ug/L	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA
Naphthalene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Nitrobenzene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
N-Nitrosodiphenylamine	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA
Pentachlorophenol	ug/L	25 U [25 U]	25 U	25 U	25 U
Phenacetin	ug/L	NA	NA	NA	NA
Phenanthrene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Phenol	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	0.71 J
Pronamide	ug/L	NA	NA	NA	NA
Pyrene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Pyridine	ug/L	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA
Total Methylphenols	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
PCBs					
Aroclor-1016	ug/L	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA
PCBs-Dissolved					
Aroclor-1016 (Dissolved)	ug/L	NA	0.2 U	0.2 U	0.2 U
Aroclor-1221 (Dissolved)	ug/L	NA	0.2 U	0.2 U	0.2 U
Aroclor-1232 (Dissolved)	ug/L	NA	0.4 U	0.4 U	0.4 U
Aroclor-1242 (Dissolved)	ug/L	NA	0.2 U	0.2 U	0.2 U

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PCBs-Dissolved (Cont'd.)					
Aroclor-1248 (Dissolved)	ug/L	NA	0.2 U	0.2 U	0.2 U
Aroclor-1254 (Dissolved)	ug/L	NA	0.2 U	0.2 U	0.2 U
Aroclor-1260 (Dissolved)	ug/L	NA	0.2 U	0.2 U	0.2 U
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	0.4 U	0.4 U	0.4 U
Organochlorine Pesticides					
4,4'-DDD	ug/L	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA
Aroclor-1016	ug/L	NA	0.2 U	0.2 U	0.2 U
Aroclor-1221	ug/L	NA	0.2 U	0.2 U	0.2 U
Aroclor-1232	ug/L	NA	0.4 U	0.4 U	0.4 U
Aroclor-1242	ug/L	NA	0.2 U	0.2 U	0.2 U
Aroclor-1248	ug/L	NA	0.2 U	0.2 U	0.2 U
Aroclor-1254	ug/L	NA	0.2 U	0.2 U	0.2 U
Aroclor-1260	ug/L	NA	0.2 U	0.2 U	0.2 U
Aroclor-1262	ug/L	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA
Organophosphate Pesticides					
4,4'-DDD	ug/L	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA

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Organophosphate Pesticides (Cont'd.)					
Alpha-Chlordane	ug/L	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA
Herbicides					
2,4,5-T	ug/L	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA
Dioxins/Furans					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA

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TABLE A-1
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Dioxins/Furans (Cont'd.)					
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA

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SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area X-14CAUG 26 - 31 06/04/96	Previously Proposed Type III Landfill Area X-14CAUG 26 - 31 05/18/00	Quench Pit MW-137WT 4 - 14 07/28/95	Quench Pit QPTW-6 3 - 13 04/12/97	Quench Pit QPTW-7 2.9 - 12.9 04/12/97	Quench Pit QPTW-8 3 - 13 04/12/97	Quench Pit QPTW-9 2.8 - 12.8 04/12/97	Quench Pit QPTW-11 2.9 - 12.9 04/12/97	Quench Pit QPTW-12 2.9 - 12.9 04/12/97
Volatile Organics										
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	NA	NA	1.0 U	0.37 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	5.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.17 J	1.0 U
1,2-Dichloroethane	ug/L	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethene (total)	ug/L	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	ug/L	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	5.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	5.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.13 J	1.0 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	NA	NA	50 U	50 U	50 U	50 U	50 U	50 U	50 U
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	NA	NA	50 U	50 U	50 U	50 U	50 U	50 U	50 U
3-Chloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	NA	NA	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Acetone	ug/L	NA	NA	50 U	100 U	8.9 J	100 U	100 U	100 U	9.0 J
Acetonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	NA	NA	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0.29 J	5.0 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	ug/L	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Disulfide	ug/L	NA	NA	50 U	50 U	0.081 J	0.22 J	0.72 J	50 U	0.21 J
Carbon Tetrachloride	ug/L	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.19 J	1.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area X-14CAUG 26 - 31 06/04/96	Previously Proposed Type III Landfill Area X-14CAUG 26 - 31 05/18/00	Quench Pit MW-137WT 4 - 14 07/28/95	Quench Pit QPTW-6 3 - 13 04/12/97	Quench Pit QPTW-7 2.9 - 12.9 04/12/97	Quench Pit QPTW-8 3 - 13 04/12/97	Quench Pit QPTW-9 2.8 - 12.8 04/12/97	Quench Pit QPTW-11 2.9 - 12.9 04/12/97	Quench Pit QPTW-12 2.9 - 12.9 04/12/97
Volatile Organics (Cont'd.)										
Chloroethane	ug/L	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	ug/L	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	ug/L	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	NA	NA	1.0 U	0.18 JB	0.20 JB	0.22 JB	0.17 JB	0.34 J	0.45 J
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	ug/L	NA	NA	1.0 U	0.15 J	0.11 J	0.086 J	0.091 J	0.20 J	0.17 J
trans-1,2-Dichloroethene	ug/L	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total 1,3-Dichloropropenes	ug/L	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total Xylenes	ug/L	NA	NA	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U

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SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area X-14CAUG 26 - 31 06/04/96	Previously Proposed Type III Landfill Area X-14CAUG 26 - 31 05/18/00	Quench Pit MW-137WT 4 - 14 07/28/95	Quench Pit QPTW-6 3 - 13 04/12/97	Quench Pit QPTW-7 2.9 - 12.9 04/12/97	Quench Pit QPTW-8 3 - 13 04/12/97	Quench Pit QPTW-9 2.8 - 12.8 04/12/97	Quench Pit QPTW-11 2.9 - 12.9 04/12/97	Quench Pit QPTW-12 2.9 - 12.9 04/12/97
Semivolatile Organics										
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	50 U	5.0 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
2,4,6-Trichlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dichlorophenol	ug/L	5.0 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dimethylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dinitrophenol	ug/L	20 UJ	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
2,4-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Chlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Methylnaphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
2-Nitrophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Picoline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
4,6-Dinitro-2-methylphenol	ug/L	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloro-3-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloroaniline	ug/L	20 U	10 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
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Semivolatile Organics (Cont'd.)										
4-Nitroaniline	ug/L	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
4-Nitrophenol	ug/L	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acenaphthylene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(a)pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(b)fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(g,h,i)perylene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(k)fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Chloroethyl)ether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Ethylhexyl)phthalate	ug/L	6.8 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.4 J	5.0 U	5.0 U
Butylbenzylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Diallate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibenzofuran	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Diethylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dimethylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Di-n-Butylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.3 J	5.0 U	5.0 U
Di-n-Octylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Diphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Fluorene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobutadiene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorocyclopentadiene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachloroethane	ug/L	2.0 U	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Hexachloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area X-14CAUG 26 - 31 06/04/96	Previously Proposed Type III Landfill Area X-14CAUG 26 - 31 05/18/00	Quench Pit MW-137WT 4 - 14 07/28/95	Quench Pit QPTW-6 3 - 13 04/12/97	Quench Pit QPTW-7 2.9 - 12.9 04/12/97	Quench Pit QPTW-8 3 - 13 04/12/97	Quench Pit QPTW-9 2.8 - 12.8 04/12/97	Quench Pit QPTW-11 2.9 - 12.9 04/12/97	Quench Pit QPTW-12 2.9 - 12.9 04/12/97
Semivolatile Organics (Cont'd.)										
Isophorone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Isosafrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Nitrobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosodiphenylamine	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	25 U	1.0 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Phenacetin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Phenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Pronamide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
PCBs										
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs-Dissolved										
Aroclor-1016 (Dissolved)	ug/L	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1221 (Dissolved)	ug/L	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1232 (Dissolved)	ug/L	NA	NA	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Aroclor-1242 (Dissolved)	ug/L	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
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SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area X-14CAUG 26 - 31 06/04/96	Previously Proposed Type III Landfill Area X-14CAUG 26 - 31 05/18/00	Quench Pit MW-137WT 4 - 14 07/28/95	Quench Pit QPTW-6 3 - 13 04/12/97	Quench Pit QPTW-7 2.9 - 12.9 04/12/97	Quench Pit QPTW-8 3 - 13 04/12/97	Quench Pit QPTW-9 2.8 - 12.8 04/12/97	Quench Pit QPTW-11 2.9 - 12.9 04/12/97	Quench Pit QPTW-12 2.9 - 12.9 04/12/97
PCBs-Dissolved (Cont'd.)										
Aroclor-1248 (Dissolved)	ug/L	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1254 (Dissolved)	ug/L	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1260 (Dissolved)	ug/L	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Organochlorine Pesticides										
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1221	ug/L	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1232	ug/L	NA	NA	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Aroclor-1242	ug/L	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1248	ug/L	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1254	ug/L	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1260	ug/L	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Organophosphate Pesticides										
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

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Organophosphate Pesticides (Cont'd.)										
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides										
2,4,5-T	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans										
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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ORGANIC COMPOUNDS

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area X-14CAUG 26 - 31 06/04/96	Previously Proposed Type III Landfill Area X-14CAUG 26 - 31 05/18/00	Quench Pit MW-137WT 4 - 14 07/28/95	Quench Pit QPTW-6 3 - 13 04/12/97	Quench Pit QPTW-7 2.9 - 12.9 04/12/97	Quench Pit QPTW-8 3 - 13 04/12/97	Quench Pit QPTW-9 2.8 - 12.8 04/12/97	Quench Pit QPTW-11 2.9 - 12.9 04/12/97	Quench Pit QPTW-12 2.9 - 12.9 04/12/97
Dioxins/Furans (Cont'd.)										
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	Quench Pit QPTW-13 3.1 - 13.1 04/12/97	Quench Pit TW-228S1 01/31/95	Quench Pit TW-228WT 01/31/95	Quench Pit TW-229S1 02/02/95	Quench Pit TW-229WT 01/31/95	Quench Pit TW-231WT 4 - 7 01/31/95	Railyard Area MW-138WT 14 - 24 07/28/95	Railyard Area MW-138WT 14 - 24 06/10/96	Railyard Area TW-240WT 02/06/95	Saginaw River Area B-7BAUG 37.5 - 42.5 07/17/95	Saginaw River Area B-7BAUG 37.5 - 42.5 06/11/96
Volatile Organics												
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U
1,2-Dichloroethene (total)	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	50 U	1.7 J	50 U	50 UJ	50 UJ	50 UJ	50 UJ	50 U	50 U [50 U]	50 U	50 U
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	50 U	R	R	R	R	R	50 U	50 U	R [R]	50 U	50 U
3-Chloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U [50 U]	50 U	50 U
Acetone	ug/L	100 U	R	50 UJ	22 J	50 UJ	R	50 UJ	33 J	50 UJ [50 UJ]	50 U	100 U
Acetonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	5.0 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U
Bromomethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U [1.0 U]	1.0 U	1.0 U
Carbon Disulfide	ug/L	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U [50 U]	50 U	50 U
Carbon Tetrachloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U

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ORGANIC COMPOUNDS

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	Quench Pit QPTW-13 3.1 - 13.1 04/12/97	Quench Pit TW-228S1 01/31/95	Quench Pit TW-228WT 01/31/95	Quench Pit TW-229S1 02/02/95	Quench Pit TW-229WT 01/31/95	Quench Pit TW-231WT 4 - 7 01/31/95	Railyard Area MW-138WT 14 - 24 07/28/95	Railyard Area MW-138WT 14 - 24 06/10/96	Railyard Area TW-240WT 02/06/95	Saginaw River Area B-7BAUG 37.5 - 42.5 07/17/95	Saginaw River Area B-7BAUG 37.5 - 42.5 06/11/96
Volatile Organics (Cont'd.)												
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U
Chloroform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U
Chloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U
Cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	0.55 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	5.0 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U
Toluene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U
Total 1,3-Dichloropropenes	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U
Total Xylenes	ug/L	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U [3.0 U]	3.0 U	3.0 U

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Quench Pit QPTW-13 3.1 - 13.1 04/12/97	Quench Pit TW-228S1 01/31/95	Quench Pit TW-228WT 01/31/95	Quench Pit TW-229S1 02/02/95	Quench Pit TW-229WT 01/31/95	Quench Pit TW-231WT 4 - 7 01/31/95	Railyard Area MW-138WT 14 - 24 07/28/95	Railyard Area MW-138WT 14 - 24 06/10/96	Railyard Area TW-240WT 02/06/95	Saginaw River Area B-7BAUG 37.5 - 42.5 07/17/95	Saginaw River Area B-7BAUG 37.5 - 42.5 06/11/96
Semivolatile Organics												
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	50 U	50 U	50 U	50 U	500 UJ	50 U	50 U	50 U	50 U [50 U]	50 U	50 U
2,4,6-Trichlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
2,4-Dichlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
2,4-Dimethylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
2,4-Dinitrophenol	ug/L	20 U	20 U	20 U	20 U	200 U	20 U	20 U	20 U	20 U [20 U]	20 U	20 U
2,4-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
2-Chlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
2-Methylnaphthalene	ug/L	5.0 U	5.0 U	5.0 U	1.3 J	50 U	0.54 J	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
2-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	20 U	20 U	20 U	20 U	200 U	20 U	20 U	20 U	20 U [20 U]	20 U	20 U
2-Nitrophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
2-Picoline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	20 U	20 U	20 U	20 U	200 U	20 U	20 U	20 U	20 U [20 U]	20 U	20 U
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	20 U	20 U	20 U	20 U	200 U	20 U	20 U	20 U	20 U [20 U]	20 U	20 U
4,6-Dinitro-2-methylphenol	ug/L	20 U	20 U	20 U	20 U	200 U	20 U	20 U	20 U	20 U [20 U]	20 U	20 U
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
4-Chloro-3-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
4-Chloroaniline	ug/L	20 U	20 U	20 U	20 U	200 U	20 U	20 U	20 U	20 U [20 U]	20 U	20 U
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	50 UJ	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
4-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U

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Semivolatile Organics (Cont'd.)												
4-Nitroaniline	ug/L	20 U	20 U	20 U	20 U	200 U	20 U	20 U	20 U	20 U [20 U]	20 UJ	20 U
4-Nitrophenol	ug/L	20 U	20 U	20 U	20 U	200 U	20 U	20 U	20 U	20 U [20 U]	20 UJ	20 U
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
Acenaphthylene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
Benzo(a)pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
Benzo(b)fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
Benzo(g,h,i)perylene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
Benzo(k)fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
bis(2-Chloroethyl)ether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
bis(2-Ethylhexyl)phthalate	ug/L	5.0 U	0.62 J	3.5 J	11	7.0 J	29	0.83 J	5.0 U	3.0 J [5.0]	5.0 U	5.0 UJ
Butylbenzylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	10 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	10 U	10 U	5.0 U [5.0 U]	10 U	10 U
Chrysene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.8 J	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
Diallate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
Dibenzofuran	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
Diethylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
Dimethylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
Di-n-Butylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	4.1 J [7.3]	5.0 U	5.0 U
Di-n-Octylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
Diphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	1.7 J	14 J	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
Fluorene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
Hexachlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
Hexachlorobutadiene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
Hexachlorocyclopentadiene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
Hexachloroethane	ug/L	2.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	2.0 U	5.0 U [5.0 U]	5.0 U	2.0 U
Hexachloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U

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TABLE A-1
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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	Quench Pit QPTW-13 3.1 - 13.1 04/12/97	Quench Pit TW-228S1 01/31/95	Quench Pit TW-228WT 01/31/95	Quench Pit TW-229S1 02/02/95	Quench Pit TW-229WT 01/31/95	Quench Pit TW-231WT 4 - 7 01/31/95	Railyard Area MW-138WT 14 - 24 07/28/95	Railyard Area MW-138WT 14 - 24 06/10/96	Railyard Area TW-240WT 02/06/95	Saginaw River Area B-7BAUG 37.5 - 42.5 07/17/95	Saginaw River Area B-7BAUG 37.5 - 42.5 06/11/96
Semivolatile Organics (Cont'd.)												
Isophorone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
Isosafrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	50 U	0.52 J	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
Nitrobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
N-Nitrosodiphenylamine	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	25 U	20 U	20 U	20 U	200 U	20 U	25 U	25 U	20 U [20 U]	25 U	25 U
Phenacetin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	5.0 U	0.60 J	5.0 U	2.0 J	50 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
Phenol	ug/L	5.0 U	5.0 U	5.0 U	0.80 J	50 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
Pronamide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	12 J	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U
PCBs												
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs-Dissolved												
Aroclor-1016 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 UJ	0.2 U	0.2 U	0.2 UJ	0.2 U [0.2 U]	0.2 U	0.2 U
Aroclor-1221 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 UJ	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U
Aroclor-1232 (Dissolved)	ug/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 UJ	0.4 U	0.4 U	0.4 U	0.4 U [0.4 U]	0.4 U	0.4 U
Aroclor-1242 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 UJ	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U

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PCBs-Dissolved (Cont'd.)												
Aroclor-1248 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 UJ	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U
Aroclor-1254 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 UJ	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U
Aroclor-1260 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 UJ	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U [0.4 U]	0.4 U	0.4 U
Organochlorine Pesticides												
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 UJ	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U
Aroclor-1221	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 UJ	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U
Aroclor-1232	ug/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 UJ	0.4 U	0.4 U	0.4 U	0.4 U [0.4 U]	0.4 U	0.4 U
Aroclor-1242	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 UJ	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U
Aroclor-1248	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 UJ	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U
Aroclor-1254	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.13 J	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U
Aroclor-1260	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 UJ	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Organophosphate Pesticides												
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Organophosphate Pesticides (Cont'd.)												
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides												
2,4,5-T	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans												
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	Quench Pit QPTW-13 3.1 - 13.1 04/12/97	Quench Pit TW-228S1 01/31/95	Quench Pit TW-228WT 01/31/95	Quench Pit TW-229S1 02/02/95	Quench Pit TW-229WT 01/31/95	Quench Pit TW-231WT 4 - 7 01/31/95	Railyard Area MW-138WT 14 - 24 07/28/95	Railyard Area MW-138WT 14 - 24 06/10/96	Railyard Area TW-240WT 02/06/95	Saginaw River Area B-7BAUG 37.5 - 42.5 07/17/95	Saginaw River Area B-7BAUG 37.5 - 42.5 06/11/96
Dioxins/Furans (Cont'd.)												
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area B-7CAUG 44.3 - 49.3 07/17/95	Saginaw River Area B-7CAUG 44.3 - 49.3 06/11/96	Saginaw River Area B-7R 5 - 15 07/17/95	Saginaw River Area B-7R 5 - 15 06/13/96	Saginaw River Area B-7R 5 - 15 03/05/97	Saginaw River Area B-7R 5 - 15 06/29/99	Saginaw River Area B-7R 5 - 15 05/20/00	Saginaw River Area B-7R 5 - 15 04/05/01
Volatile Organics									
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	1.0 U	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA	NA	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA	NA	NA	NA
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA	NA	NA	NA
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA	NA	NA	NA
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	1.0 U	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	R	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	1.0 U	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA	NA	NA	NA
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA	NA	NA	NA
1,2-Dichloroethene (total)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA	NA	NA	NA
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA	NA	NA	NA
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA	NA	NA	NA
1,4-Dioxane	ug/L	NA	NA	R	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	50 U	50 U	5.0 UJ	50 U [50 U]	NA	NA	NA	NA
2-Chloro-1,3-butadiene	ug/L	NA	NA	1.0 U	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	50 U	50 U	5.0 U	50 U [50 U]	NA	NA	NA	NA
3-Chloropropene	ug/L	NA	NA	2.0 U	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U	50 U	5.0 U	50 U [50 U]	NA	NA	NA	NA
Acetone	ug/L	50 U	5.9 J	10 UJ	100 U [100 U]	NA	NA	NA	NA
Acetonitrile	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	R	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
Benzene	ug/L	1.0 U	5.0 U	1.0 U	0.41 J [5.0 U]	NA	NA	NA	NA
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA	NA	NA	NA
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA	NA	NA	NA
Bromomethane	ug/L	1.0 U	1.0 UJ	1.0 U	1.0 U [1.0 U]	NA	NA	NA	NA
Carbon Disulfide	ug/L	50 U	2.3 J	1.0 U	50 U [50 U]	NA	NA	NA	NA
Carbon Tetrachloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA	NA	NA	NA
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area B-7CAUG 44.3 - 49.3 07/17/95	Saginaw River Area B-7CAUG 44.3 - 49.3 06/11/96	Saginaw River Area B-7R 5 - 15 07/17/95	Saginaw River Area B-7R 5 - 15 06/13/96	Saginaw River Area B-7R 5 - 15 03/05/97	Saginaw River Area B-7R 5 - 15 06/29/99	Saginaw River Area B-7R 5 - 15 05/20/00	Saginaw River Area B-7R 5 - 15 04/05/01
Volatile Organics (Cont'd.)									
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA	NA	NA	NA
Chloroform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA	NA	NA	NA
Chloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA	NA	NA	NA
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA	NA	NA	NA
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA	NA	NA	NA
Cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA	NA	NA	NA
Dibromomethane	ug/L	NA	NA	1.0 U	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	1.0 U	NA	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	1.0 U	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	1.0 U	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	R	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	1.0 U	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	1.0 U	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	1.0 U	5.0 U	1.0 U	5.0 U [5.0 U]	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	R	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA	NA	NA	NA
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA	NA	NA	NA
Toluene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA	NA	NA	NA
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA	NA	NA	NA
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA	NA	NA	NA
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	1.0 U	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA	NA	NA	NA
Trichlorofluoromethane	ug/L	NA	NA	1.0 U	NA	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	2.0 U	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA	NA	NA	NA
Total 1,3-Dichloropropenes	ug/L	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA	NA	NA	NA
Total Xylenes	ug/L	3.0 U	3.0 U	1.0 U	3.0 U [3.0 U]	NA	NA	NA	NA

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area B-7CAUG 44.3 - 49.3 07/17/95	Saginaw River Area B-7CAUG 44.3 - 49.3 06/11/96	Saginaw River Area B-7R 5 - 15 07/17/95	Saginaw River Area B-7R 5 - 15 06/13/96	Saginaw River Area B-7R 5 - 15 03/05/97	Saginaw River Area B-7R 5 - 15 06/29/99	Saginaw River Area B-7R 5 - 15 05/20/00	Saginaw River Area B-7R 5 - 15 04/05/01
Semivolatile Organics									
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	5.0 UJ	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5.0 U	10 U	5.0 UJ	5.0 U [5.0 U]	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	R	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	5.0 UJ	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	50 UJ	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	10 UJ	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	5.0 U	10 U	5.0 UJ	5.0 U [5.0 U]	NA	NA	NA	NA
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	50 UJ	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	50 U	100 U	10 UJ	50 U [50 U]	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	5.0 U	10 U	5.0 UJ	5.0 U [5.0 U]	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	5.0 U	10 U	5.0 UJ	5.0 U [5.0 U]	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	5.0 U	10 U	5.0 UJ	5.0 U [5.0 U]	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	20 U	40 U	20 UJ	20 U [20 U]	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	5.0 U	10 U	5.0 UJ	5.0 U [5.0 U]	NA	NA	NA	NA
2,6-Dichlorophenol	ug/L	NA	NA	5.0 UJ	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	5.0 U	10 U	5.0 UJ	5.0 U [5.0 U]	NA	NA	NA	NA
2-Acetylaminofluorene	ug/L	NA	NA	100 UJ	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	5.0 U	10 U	5.0 UJ	5.0 U [5.0 U]	NA	NA	NA	NA
2-Chlorophenol	ug/L	5.0 U	10 U	5.0 UJ	5.0 U [5.0 U]	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	5.0 U	10 U	5.0 UJ	5.0 U [5.0 U]	NA	NA	NA	NA
2-Methylphenol	ug/L	5.0 U	10 U	5.0 UJ	5.0 U [5.0 U]	NA	NA	NA	NA
2-Naphthylamine	ug/L	NA	NA	10 UJ	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	20 U	40 U	20 UJ	20 U [20 U]	NA	NA	NA	NA
2-Nitrophenol	ug/L	5.0 U	10 U	5.0 UJ	5.0 U [5.0 U]	NA	NA	NA	NA
2-Picoline	ug/L	NA	NA	20 UJ	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	20 U	40 U	20 UJ	20 U [20 U]	NA	NA	NA	NA
3,3'-Dimethylbenzidine	ug/L	NA	NA	10 UJ	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	20 UJ	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	5.0 UJ	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	20 U	40 U	20 UJ	20 U [20 U]	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	20 U	40 U	20 UJ	20 U [20 U]	NA	NA	NA	NA
4-Aminobiphenyl	ug/L	NA	NA	50 UJ	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	5.0 U	10 U	5.0 UJ	5.0 U [5.0 U]	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	5.0 U	10 U	5.0 UJ	5.0 U [5.0 U]	NA	NA	NA	NA
4-Chloroaniline	ug/L	20 U	40 U	10 UJ	20 U [20 U]	NA	NA	NA	NA
4-Chlorobenzilate	ug/L	NA	NA	10 UJ	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	5.0 U	10 U	5.0 UJ	5.0 U [5.0 U]	NA	NA	NA	NA
4-Methylphenol	ug/L	5.0 U	10 U	5.0 UJ	5.0 U [5.0 U]	NA	NA	NA	NA

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area B-7CAUG 44.3 - 49.3 07/17/95	Saginaw River Area B-7CAUG 44.3 - 49.3 06/11/96	Saginaw River Area B-7R 5 - 15 07/17/95	Saginaw River Area B-7R 5 - 15 06/13/96	Saginaw River Area B-7R 5 - 15 03/05/97	Saginaw River Area B-7R 5 - 15 06/29/99	Saginaw River Area B-7R 5 - 15 05/20/00	Saginaw River Area B-7R 5 - 15 04/05/01
Semivolatile Organics (Cont'd.)									
4-Nitroaniline	ug/L	20 UJ	40 U	20 UJ	20 U [20 U]	NA	NA	NA	NA
4-Nitrophenol	ug/L	20 UJ	40 U	20 UJ	20 U [20 U]	NA	NA	NA	NA
4-Nitroquinoline-1-oxide	ug/L	NA	NA	100 UJ	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	100 UJ	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	20 UJ	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	20 UJ	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	50 UJ	NA	NA	NA	NA	NA
Acenaphthene	ug/L	5.0 U	10 U	5.0 UJ	5.0 U [5.0 U]	NA	NA	NA	NA
Acenaphthylene	ug/L	5.0 U	10 U	5.0 UJ	5.0 U [5.0 U]	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	10 UJ	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	10 UJ	NA	NA	NA	NA	NA
Anthracene	ug/L	5.0 U	10 U	5.0 UJ	5.0 U [5.0 U]	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	5.0 U	10 U	5.0 UJ	5.0 U [5.0 U]	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	5.0 U	10 U	5.0 UJ	5.0 U [5.0 U]	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	5.0 U	10 U	5.0 UJ	5.0 U [5.0 U]	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	5.0 U	10 U	5.0 UJ	5.0 U [5.0 U]	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	5.0 U	10 U	5.0 UJ	5.0 U [5.0 U]	NA	NA	NA	NA
Benzyl Alcohol	ug/L	NA	NA	10 UJ	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	5.0 U	10 U	5.0 UJ	5.0 U [5.0 U]	NA	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	5.0 U	10 U	5.0 UJ	5.0 U [5.0 U]	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	5.0 U	10 UJ	5.0 UJ	5.0 U [5.0 U]	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	5.0 U	10 U	5.0 UJ	5.0 U [5.0 U]	NA	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	10 U	20 U	NA	10 U [10 U]	NA	NA	NA	NA
Chrysene	ug/L	5.0 U	10 U	5.0 UJ	5.0 U [5.0 U]	NA	NA	NA	NA
Diallate	ug/L	NA	NA	5.0 UJ	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	5.0 U	10 U	5.0 UJ	5.0 U [5.0 U]	NA	NA	NA	NA
Dibenzofuran	ug/L	5.0 U	10 U	5.0 UJ	5.0 U [5.0 U]	NA	NA	NA	NA
Diethylphthalate	ug/L	5.0 U	10 U	5.0 UJ	5.0 U [5.0 U]	NA	NA	NA	NA
Dimethylphthalate	ug/L	5.0 U	10 U	5.0 UJ	5.0 U [5.0 U]	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	5.0 U	10 U	5.0 UJ	5.0 U [5.0 U]	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	5.0 U	10 U	5.0 UJ	5.0 U [5.0 U]	NA	NA	NA	NA
Diphenylamine	ug/L	NA	NA	5.0 UJ	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	10 UJ	NA	NA	NA	NA	NA
Fluoranthene	ug/L	5.0 U	10 U	5.0 UJ	5.0 U [5.0 U]	NA	NA	NA	NA
Fluorene	ug/L	5.0 U	10 U	5.0 UJ	5.0 U [5.0 U]	NA	NA	NA	NA
Hexachlorobenzene	ug/L	5.0 U	10 U	5.0 UJ	5.0 U [5.0 U]	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	5.0 U	10 U	5.0 UJ	5.0 U [5.0 U]	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	5.0 U	10 U	5.0 UJ	5.0 U [5.0 U]	NA	NA	NA	NA
Hexachloroethane	ug/L	5.0 U	4.0 U	5.0 UJ	2.0 U [2.0 U]	NA	NA	NA	NA
Hexachloropropene	ug/L	NA	NA	100 UJ	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	5.0 U	10 U	5.0 UJ	5.0 U [5.0 U]	NA	NA	NA	NA

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TABLE A-1
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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

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Semivolatile Organics (Cont'd.)									
Isophorone	ug/L	5.0 U	10 U	5.0 UJ	5.0 U [5.0 U]	NA	NA	NA	NA
Isosafrole	ug/L	NA	NA	20 UJ	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	50 UJ	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	10 UJ	NA	NA	NA	NA	NA
Naphthalene	ug/L	5.0 U	10 U	5.0 UJ	5.0 U [5.0 U]	NA	NA	NA	NA
Nitrobenzene	ug/L	5.0 U	10 U	5.0 UJ	5.0 U [5.0 U]	NA	NA	NA	NA
N-Nitrosodiethylamine	ug/L	NA	NA	10 UJ	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	5.0 UJ	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	10 UJ	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	5.0 U	10 U	5.0 UJ	5.0 U [5.0 U]	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	5.0 U	10 U	5.0 UJ	5.0 U [5.0 U]	NA	NA	NA	NA
N-Nitrosomethylethylamine	ug/L	NA	NA	10 UJ	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	10 UJ	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	10 UJ	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	10 UJ	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	20 UJ	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	20 UJ	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	5.0 UJ	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	50 UJ	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	25 U	50 U	25 UJ	25 U [25 U]	NA	NA	NA	NA
Phenacetin	ug/L	NA	NA	20 UJ	NA	NA	NA	NA	NA
Phenanthrene	ug/L	5.0 U	10 U	5.0 UJ	5.0 U [5.0 U]	NA	NA	NA	NA
Phenol	ug/L	180 D	98	5.0 UJ	5.0 U [5.0 U]	NA	NA	NA	NA
Pronamide	ug/L	NA	NA	20 UJ	NA	NA	NA	NA	NA
Pyrene	ug/L	5.0 U	10 U	5.0 UJ	5.0 U [5.0 U]	NA	NA	NA	NA
Pyridine	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	20 UJ	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	5.0 U	10 U	5.0 U	5.0 U [5.0 U]	NA	NA	NA	NA
PCBs									
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	0.10 U	0.20 U	0.20 U
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	0.10 U	0.20 U	0.20 U
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	0.10 U	0.40 U	0.40 U
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	0.10 U	0.20 U	0.20 U
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	0.10 U	0.20 U	0.20 U
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	0.10 U	0.20 U	0.20 U
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	0.10 U	0.20 U	0.20 U
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	0.10 U	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	0.10 U	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	0.10 U	0.40 U	0.40 U
PCBs-Dissolved									
Aroclor-1016 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U [0.2 U]	0.1 U	0.2 U	NA
Aroclor-1221 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U [0.2 U]	0.1 U	0.2 U	NA
Aroclor-1232 (Dissolved)	ug/L	0.4 U	0.4 U	0.4 U	0.4 U [0.4 U]	0.4 U [0.4 U]	0.1 U	0.4 U	NA
Aroclor-1242 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U [0.2 U]	0.1 U	0.2 U	NA

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PCBs-Dissolved (Cont'd.)									
Aroclor-1248 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U [0.2 U]	0.1 U	0.2 U	NA
Aroclor-1254 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U [0.2 U]	0.1 U	0.2 U	NA
Aroclor-1260 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U [0.2 U]	0.1 U	0.2 U	NA
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	0.1 U	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	0.1 U	NA	NA
Total PCBs (Dissolved)	ug/L	0.4 U	0.4 U	0.4 U	0.4 U [0.4 U]	0.4 U [0.4 U]	0.1 U	0.4 U	NA
Organochlorine Pesticides									
4,4'-DDD	ug/L	NA	NA	0.02 U	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	0.02 UJ	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	0.02 U	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	0.01 U	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	0.01 U	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	0.02 U	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U [0.2 U]	NA	NA	NA
Aroclor-1221	ug/L	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U [0.2 U]	NA	NA	NA
Aroclor-1232	ug/L	0.4 U	0.4 U	0.4 U	0.4 U [0.4 U]	0.4 U [0.4 U]	NA	NA	NA
Aroclor-1242	ug/L	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U [0.2 U]	NA	NA	NA
Aroclor-1248	ug/L	0.2 U	0.2 U	0.34	0.2 U [0.2 U]	0.25 [0.27]	NA	NA	NA
Aroclor-1254	ug/L	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U [0.2 U]	NA	NA	NA
Aroclor-1260	ug/L	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U [0.2 U]	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	0.01 UJ	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	0.01 U	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	0.02 U	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	0.01 U	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	0.02 U	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	0.02 U	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	0.02 U	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	0.02 UJ	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	0.01 U	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	0.02 U	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	0.01 U	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	0.01 U	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	0.1 UJ	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	1 UJ	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	0.1 U	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA
Organophosphate Pesticides									
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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Organophosphate Pesticides (Cont'd.)									
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides									
2,4,5-T	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	4 U	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	0.6 UJ	NA	NA	NA	NA	NA
Dioxins/Furans									
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	0.0000038 U [0.000015 U]	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	0.000043 U [0.00005 U]	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	0.0000033 U [0.0000054 U]	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	0.00000046 U [0.0000024 U]	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	0.00000062 U [0.00000069 U]	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	0.000001 U [0.0000021 U]	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	0.0000011 U [0.0000016 U]	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	0.000001 U [0.000002 U]	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	0.00000092 U [0.00000057 U]	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	0.000001 U [0.0000021 U]	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	0.0000012 U [0.00000071 U]	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	0.0000014 U [0.0000022 U]	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	0.0000017 U [0.0000021 U]	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	0.0000024 U [0.0000024 U]	NA	NA	NA	NA

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Dioxins/Furans (Cont'd.)									
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	0.0000015 U [0.0000019 U]	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	0.0000033 U	0.00000092 U [0.00000068 U]	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	0.00000045 U [0.0000036 U]	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	0.00000062 U [0.0000035 U]	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	0.0000071 U [0.0000069 U]	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	0.0000039 U	0.0000024 U [0.0000024 U]	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	0.000005 U	0.0000012 U [0.0000028 U]	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	0.0000057 U	0.0000017 U [0.0000021 U]	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	0.000011 U	0.0000069 U [0.0000081 U]	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	0.0000091	0.00000045 U [0.0000036 U]	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	0.0000033 U	0.00000092 U [0.0000022 U]	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	0.000001	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	Saginaw River Area B-7R 5 - 15 06/02/04	Saginaw River Area B-7R 5 - 15 08/23/05	Saginaw River Area B-7R 5 - 15 11/28/07	Saginaw River Area B-7R 5 - 15 06/03/08	Saginaw River Area MW-6CAUG 37.5 - 42.5 07/13/95	Saginaw River Area MW-6CAUG 37.5 - 42.5 06/09/96	Saginaw River Area MW-6CAUG 37.5 - 42.5 05/22/00	Saginaw River Area MW-6DAUG 47.8 - 52.8 07/13/95
Volatile Organics									
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	NA	NA	NA	NA	2.0 UJ	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	2.0 UJ	1.0 U	1.0 UJ	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	NA	NA	NA	NA	2.0 UJ	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	NA	NA	NA	NA	2.0 UJ	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	NA	NA	NA	NA	2.0 UJ	1.0 U	1.0 U	1.0 U
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	2.0 UJ	1.0 U	NA	1.0 U
1,2-Dichloroethane	ug/L	NA	NA	NA	NA	2.0 UJ	1.0 U	1.0 U	1.0 U
1,2-Dichloroethene (total)	ug/L	NA	NA	NA	NA	2.0 UJ	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	NA	NA	NA	NA	2.0 UJ	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	2.0 UJ	1.0 U	NA	1.0 U
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	2.0 UJ	1.0 U	NA	1.0 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	NA	NA	NA	NA	100 UJ	50 U	10 U	50 UJ
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	NA	NA	NA	NA	100 UJ	50 U	10 U	R
3-Chloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	NA	NA	NA	NA	100 UJ	50 U	10 U	50 U
Acetone	ug/L	NA	NA	NA	NA	100 UJ	100 U	10 U	50 U
Acetonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	NA	NA	NA	NA	6.0 J	1.4 J	0.51 JB	1.0 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	NA	NA	NA	NA	2.0 UJ	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	NA	NA	NA	NA	2.0 UJ	1.0 U	1.0 U	1.0 U
Bromomethane	ug/L	NA	NA	NA	NA	2.0 UJ	1.0 U	1.0 U	1.0 U
Carbon Disulfide	ug/L	NA	NA	NA	NA	100 UJ	50 U	0.26 J	50 U
Carbon Tetrachloride	ug/L	NA	NA	NA	NA	2.0 UJ	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	NA	NA	NA	NA	2.0 UJ	1.0 U	1.0 U	1.0 U

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SAGINAW, MICHIGAN

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Volatile Organics (Cont'd.)									
Chloroethane	ug/L	NA	NA	NA	NA	2.0 UJ	1.0 U	1.0 U	1.0 U
Chloroform	ug/L	NA	NA	NA	NA	2.0 UJ	1.0 U	1.0 U	1.0 U
Chloromethane	ug/L	NA	NA	NA	NA	2.0 UJ	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	2.0 UJ	1.0 U	0.50 U	1.0 U
cis-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	2.0 UJ	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	NA	NA	NA	NA	2.0 UJ	1.0 U	1.0 U	1.0 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	NA	NA	NA	NA	10 J	2.6	2.2	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	NA	NA	NA	NA	2.0 UJ	5.0 U	1.0 U	1.0 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	NA	NA	NA	NA	2.0 UJ	1.0 U	1.0 U	1.0 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	NA	NA	NA	NA	2.0 UJ	1.0 U	1.0 U	1.0 U
Toluene	ug/L	NA	NA	NA	NA	43 J	7.8	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	2.0 UJ	1.0 U	0.50 U	1.0 U
trans-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	2.0 UJ	1.0 U	1.0 U	1.0 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	NA	NA	NA	NA	2.0 UJ	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	NA	NA	NA	NA	2.0 UJ	1.0 U	1.0 U	1.0 U
Total 1,3-Dichloropropenes	ug/L	NA	NA	NA	NA	2.0 U	1.0 U	1.0 U	1.0 U
Total Xylenes	ug/L	NA	NA	NA	NA	56 J	15	13	3.0 U

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SAGINAW, MICHIGAN

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Semivolatile Organics									
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	5.0 U	5.0 U	NA	5.0 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	NA	NA	NA	NA	5.0 U	5.0 U	NA	5.0 U
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	R	50 U	NA	50 U
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	R	5.0 U	NA	5.0 U
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	R	5.0 U	NA	5.0 U
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	R	5.0 U	NA	5.0 U
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	R	20 U	NA	20 U
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	5.0 U	5.0 U	NA	5.0 U
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	NA	NA	NA	5.0 U	5.0 U	NA	5.0 U
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	5.0 U	5.0 U	NA	5.0 U
2-Chlorophenol	ug/L	NA	NA	NA	NA	R	5.0 U	NA	5.0 U
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	3.0 J	5.0 U	NA	5.0 U
2-Methylphenol	ug/L	NA	NA	NA	NA	R	5.0 U	NA	5.0 U
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	20 U	20 U	NA	20 U
2-Nitrophenol	ug/L	NA	NA	NA	NA	R	5.0 U	NA	5.0 U
2-Picoline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	NA	20 U	20 U	NA	20 U
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	20 U	20 U	NA	20 U
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	NA	R	20 U	NA	20 U
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	NA	5.0 U	5.0 U	NA	5.0 U
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	R	5.0 U	NA	5.0 U
4-Chloroaniline	ug/L	NA	NA	NA	NA	20 U	20 U	NA	20 U
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	NA	5.0 U	5.0 U	NA	5.0 U
4-Methylphenol	ug/L	NA	NA	NA	NA	R	5.0 U	NA	5.0 U

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SAGINAW, MICHIGAN

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Semivolatile Organics (Cont'd.)									
4-Nitroaniline	ug/L	NA	NA	NA	NA	20 U	20 U	NA	20 U
4-Nitrophenol	ug/L	NA	NA	NA	NA	R	20 U	NA	20 U
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	5.0 U	5.0 U	NA	5.0 U
Acenaphthylene	ug/L	NA	NA	NA	NA	5.0 U	5.0 U	NA	5.0 U
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	5.0 U	5.0 U	NA	5.0 U
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	NA	NA	NA	5.0 U	5.0 U	NA	5.0 U
Benzo(a)pyrene	ug/L	NA	NA	NA	NA	5.0 U	5.0 U	NA	5.0 U
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	5.0 U	5.0 U	NA	5.0 U
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	5.0 U	5.0 U	NA	5.0 U
Benzo(k)fluoranthene	ug/L	NA	NA	NA	NA	5.0 U	5.0 U	NA	5.0 U
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	5.0 U	5.0 U	NA	5.0 U
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	5.0 U	5.0 U	NA	5.0 U
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	6.0	2.5 J	NA	5.0 U
Butylbenzylphthalate	ug/L	NA	NA	NA	NA	5.0 U	5.0 U	NA	5.0 U
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	10 U	10 U	NA	10 U
Chrysene	ug/L	NA	NA	NA	NA	5.0 U	5.0 U	NA	5.0 U
Diallate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	NA	5.0 U	5.0 U	NA	5.0 U
Dibenzofuran	ug/L	NA	NA	NA	NA	5.0 U	5.0 U	NA	5.0 U
Diethylphthalate	ug/L	NA	NA	NA	NA	5.0 U	5.0 U	NA	5.0 U
Dimethylphthalate	ug/L	NA	NA	NA	NA	5.0 U	5.0 U	NA	5.0 U
Di-n-Butylphthalate	ug/L	NA	NA	NA	NA	5.0 U	5.0 U	NA	5.0 U
Di-n-Octylphthalate	ug/L	NA	NA	NA	NA	5.0 U	5.0 U	NA	5.0 U
Diphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	5.0 U	5.0 U	NA	5.0 U
Fluorene	ug/L	NA	NA	NA	NA	5.0 U	5.0 U	NA	5.0 U
Hexachlorobenzene	ug/L	NA	NA	NA	NA	5.0 U	5.0 U	NA	5.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	5.0 U	5.0 U	NA	5.0 U
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	5.0 U	5.0 U	NA	5.0 U
Hexachloroethane	ug/L	NA	NA	NA	NA	5.0 U	2.0 U	NA	5.0 U
Hexachloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	NA	5.0 U	5.0 U	NA	5.0 U

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Semivolatile Organics (Cont'd.)									
Isophorone	ug/L	NA	NA	NA	NA	5.0 U	5.0 U	NA	5.0 U
Isosafrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	3.0 J	5.0 U	NA	5.0 U
Nitrobenzene	ug/L	NA	NA	NA	NA	5.0 U	5.0 U	NA	5.0 U
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	NA	5.0 U	5.0 U	NA	5.0 U
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	NA	5.0 U	5.0 U	NA	5.0 U
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	R	25 U	NA	25 UJ
Phenacetin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	5.0 U	5.0 U	NA	5.0 U
Phenol	ug/L	NA	NA	NA	NA	R	13	NA	65
Pronamide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	5.0 U	5.0 U	NA	5.0 UJ
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	NA	NA	NA	NA	R	5.0 U	NA	5.0 U
PCBs									
Aroclor-1016	ug/L	NA	0.20 U	0.20 U	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	0.20 U	0.20 U	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	0.20 U	0.20 U	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	0.20 U	0.20 U	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	0.20 U	0.31	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	0.20 U	0.20 U	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	0.20 U	0.20 U	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	0.20 U	0.31	0.30 [0.28]	NA	NA	NA	NA
PCBs-Dissolved									
Aroclor-1016 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U	NA	0.2 U
Aroclor-1221 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U	NA	0.2 U
Aroclor-1232 (Dissolved)	ug/L	0.4 U	0.2 U	0.2 U	NA	0.4 U	0.4 U	NA	0.4 U
Aroclor-1242 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U	NA	0.2 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

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PCBs-Dissolved (Cont'd.)									
Aroclor-1248 (Dissolved)	ug/L	0.31	0.31	0.2 U	NA	0.2 U	0.2 U	NA	0.2 U
Aroclor-1254 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U	NA	0.2 U
Aroclor-1260 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U	NA	0.2 U
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	0.31	0.31	0.2 U	NA	0.4 U	0.4 U	NA	0.4 U
Organochlorine Pesticides									
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	NA	NA	NA	NA	0.2 U	0.2 U	NA	0.2 U
Aroclor-1221	ug/L	NA	NA	NA	NA	0.2 U	0.2 U	NA	0.2 U
Aroclor-1232	ug/L	NA	NA	NA	NA	0.4 U	0.4 U	NA	0.4 U
Aroclor-1242	ug/L	NA	NA	NA	NA	0.2 U	0.2 U	NA	0.2 U
Aroclor-1248	ug/L	NA	NA	NA	NA	0.2 U	0.2 U	NA	0.2 U
Aroclor-1254	ug/L	NA	NA	NA	NA	0.2 U	0.2 U	NA	0.2 U
Aroclor-1260	ug/L	NA	NA	NA	NA	0.2 U	0.2 U	NA	0.2 U
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Organophosphate Pesticides									
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

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Organophosphate Pesticides (Cont'd.)									
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides									
2,4,5-T	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans									
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

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Dioxins/Furans (Cont'd.)									
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area MW-6DAUG 47.8 - 52.8 06/09/96	Saginaw River Area MW-107S1 12.5 - 17.5 07/12/95	Saginaw River Area MW-107S1 12.5 - 17.5 06/07/96	Saginaw River Area MW-107S2 21.4 - 26.4 07/12/95	Saginaw River Area MW-107S2 21.4 - 26.4 06/07/96	Saginaw River Area MW-107WT 4 - 9 07/12/95	Saginaw River Area MW-107WT 4 - 9 06/07/96	Saginaw River Area MW-107WT 4 - 9 03/10/97
Volatile Organics									
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	0.42 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA
1,2-Dichloroethene (total)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	50 U	50 U	50 U	50 U	50 U	50 U	50 U	NA
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	50 U	50 UJ	50 U	50 UJ	50 U	50 UJ	50 U	NA
3-Chloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U	50 U	50 U	50 U	50 U	50 U	50 U	NA
Acetone	ug/L	100 U	50 U	100 U	50 U	100 U	50 U	100 U	NA
Acetonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	NA
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA
Bromomethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA
Carbon Disulfide	ug/L	0.83 J	50 U	50 U	50 U	50 U	50 U	50 U	NA
Carbon Tetrachloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA

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Volatile Organics (Cont'd.)									
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA
Chloroform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA
Chloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA
Cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA
Toluene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA
Total 1,3-Dichloropropenes	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA
Total Xylenes	ug/L	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area MW-6DAUG 47.8 - 52.8 06/09/96	Saginaw River Area MW-107S1 12.5 - 17.5 07/12/95	Saginaw River Area MW-107S1 12.5 - 17.5 06/07/96	Saginaw River Area MW-107S2 21.4 - 26.4 07/12/95	Saginaw River Area MW-107S2 21.4 - 26.4 06/07/96	Saginaw River Area MW-107WT 4 - 9 07/12/95	Saginaw River Area MW-107WT 4 - 9 06/07/96	Saginaw River Area MW-107WT 4 - 9 03/10/97
Semivolatile Organics									
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	50 U	50 U	50 U	50 U	50 U	50 U	50 U	NA
2,4,6-Trichlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
2,4-Dichlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
2,4-Dimethylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
2,4-Dinitrophenol	ug/L	20 U	20 U	20 U	20 U	20 U	20 U	20 U	NA
2,4-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
2-Chlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
2-Methylnaphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
2-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	20 U	20 U	20 U	20 U	20 U	20 U	20 U	NA
2-Nitrophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
2-Picoline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	20 U	20 U	20 U	20 U	20 U	20 U	20 U	NA
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	20 U	20 U	20 U	20 U	20 U	20 U	20 U	NA
4,6-Dinitro-2-methylphenol	ug/L	20 U	20 U	20 U	20 U	20 U	20 U	20 U	NA
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
4-Chloro-3-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
4-Chloroaniline	ug/L	20 U	20 U	20 U	20 U	20 U	20 U	20 U	NA
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
4-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area MW-6DAUG 47.8 - 52.8 06/09/96	Saginaw River Area MW-107S1 12.5 - 17.5 07/12/95	Saginaw River Area MW-107S1 12.5 - 17.5 06/07/96	Saginaw River Area MW-107S2 21.4 - 26.4 07/12/95	Saginaw River Area MW-107S2 21.4 - 26.4 06/07/96	Saginaw River Area MW-107WT 4 - 9 07/12/95	Saginaw River Area MW-107WT 4 - 9 06/07/96	Saginaw River Area MW-107WT 4 - 9 03/10/97
Semivolatile Organics (Cont'd.)									
4-Nitroaniline	ug/L	20 U	20 U	20 U	20 U	20 U	20 U	20 U	NA
4-Nitrophenol	ug/L	20 U	20 U	20 U	20 U	20 UJ	20 U	20 U	NA
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
Acenaphthylene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
Benzo(a)pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
Benzo(b)fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
Benzo(g,h,i)perylene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
Benzo(k)fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
bis(2-Chloroethyl)ether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
bis(2-Ethylhexyl)phthalate	ug/L	5.0 U	9.0	11 U	2.5 J	7.1 U	0.70 J	7.7 U	NA
Butylbenzylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NA
Chrysene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
Diallate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
Dibenzofuran	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
Diethylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
Dimethylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
Di-n-Butylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
Di-n-Octylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
Diphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
Fluorene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
Hexachlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
Hexachlorobutadiene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
Hexachlorocyclopentadiene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
Hexachloroethane	ug/L	2.0 U	5.0 U	2.0 U	5.0 U	2.0 U	5.0 U	2.0 U	NA
Hexachloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA

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ORGANIC COMPOUNDS

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SAGINAW, MICHIGAN

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Semivolatile Organics (Cont'd.)									
Isophorone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U	NA
Isosafrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
Nitrobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
N-Nitrosodiphenylamine	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	25 U	20 U	25 U	20 U	25 U	20 U	25 U	NA
Phenacetin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
Phenol	ug/L	3.0 J	5.0 U	5.0 U	0.60 J	5.0 U	5.0 U	5.0 U	NA
Pronamide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
PCBs									
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
PCBs-Dissolved									
Aroclor-1016 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1221 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1232 (Dissolved)	ug/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Aroclor-1242 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U

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PCBs-Dissolved (Cont'd.)									
Aroclor-1248 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1254 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1260 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Organochlorine Pesticides									
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1221	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1232	ug/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Aroclor-1242	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1248	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1254	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1260	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Organophosphate Pesticides									
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area MW-6DAUG 47.8 - 52.8 06/09/96	Saginaw River Area MW-107S1 12.5 - 17.5 07/12/95	Saginaw River Area MW-107S1 12.5 - 17.5 06/07/96	Saginaw River Area MW-107S2 21.4 - 26.4 07/12/95	Saginaw River Area MW-107S2 21.4 - 26.4 06/07/96	Saginaw River Area MW-107WT 4 - 9 07/12/95	Saginaw River Area MW-107WT 4 - 9 06/07/96	Saginaw River Area MW-107WT 4 - 9 03/10/97
Organophosphate Pesticides (Cont'd.)									
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides									
2,4,5-T	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans									
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area MW-6DAUG 47.8 - 52.8 06/09/96	Saginaw River Area MW-107S1 12.5 - 17.5 07/12/95	Saginaw River Area MW-107S1 12.5 - 17.5 06/07/96	Saginaw River Area MW-107S2 21.4 - 26.4 07/12/95	Saginaw River Area MW-107S2 21.4 - 26.4 06/07/96	Saginaw River Area MW-107WT 4 - 9 07/12/95	Saginaw River Area MW-107WT 4 - 9 06/07/96	Saginaw River Area MW-107WT 4 - 9 03/10/97
Dioxins/Furans (Cont'd.)									
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	Saginaw River Area MW-108S1 8.8 - 13.8 07/13/95	Saginaw River Area MW-108S1 8.8 - 13.8 06/08/96	Saginaw River Area MW-108S1 8.8 - 13.8 03/10/97	Saginaw River Area MW-108S1 8.8 - 13.8 06/29/99	Saginaw River Area MW-108S1 8.8 - 13.8 05/23/00	Saginaw River Area MW-108S2 22 - 27 07/13/95	Saginaw River Area MW-108S2 22 - 27 06/08/96	Saginaw River Area MW-108S3 39.8 - 44.8 07/13/95
Volatile Organics									
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	1.0 U	1.0 U
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	1.0 U	1.0 U
1,2-Dichloroethene (total)	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	1.0 U	1.0 U
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	50 U	50 U	NA	NA	NA	50 UJ	50 U	50 UJ
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	R	50 U	NA	NA	NA	R	50 U	R
3-Chloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U	50 U	NA	NA	NA	50 U	50 U	50 U
Acetone	ug/L	50 U	100 U	NA	NA	NA	50 U	100 U	50 U
Acetonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	1.0 U	5.0 U	NA	NA	NA	1.0 U	5.0 U	1.0 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	1.0 U	1.0 U
Bromomethane	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	1.0 U	1.0 U
Carbon Disulfide	ug/L	50 U	50 U	NA	NA	NA	50 U	50 U	50 U
Carbon Tetrachloride	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	1.0 U	1.0 U

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	Saginaw River Area MW-108S1 8.8 - 13.8 07/13/95	Saginaw River Area MW-108S1 8.8 - 13.8 06/08/96	Saginaw River Area MW-108S1 8.8 - 13.8 03/10/97	Saginaw River Area MW-108S1 8.8 - 13.8 06/29/99	Saginaw River Area MW-108S1 8.8 - 13.8 05/23/00	Saginaw River Area MW-108S2 22 - 27 07/13/95	Saginaw River Area MW-108S2 22 - 27 06/08/96	Saginaw River Area MW-108S3 39.8 - 44.8 07/13/95
Volatile Organics (Cont'd.)									
Chloroethane	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	1.0 U	1.0 U
Chloroform	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	1.0 U	1.0 U
Chloromethane	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	1.0 U	1.0 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	1.0 U	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	1.0 U	5.0 U	NA	NA	NA	1.0 U	5.0 U	1.0 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	1.0 U	1.0 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	1.0 U	1.0 U
Toluene	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	1.0 U	1.0 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	1.0 U	1.0 U
Total 1,3-Dichloropropenes	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	1.0 U	1.0 U
Total Xylenes	ug/L	3.0 U	3.0 U	NA	NA	NA	3.0 U	3.0 U	3.0 U

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ORGANIC COMPOUNDS

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area MW-108S1 8.8 - 13.8 07/13/95	Saginaw River Area MW-108S1 8.8 - 13.8 06/08/96	Saginaw River Area MW-108S1 8.8 - 13.8 03/10/97	Saginaw River Area MW-108S1 8.8 - 13.8 06/29/99	Saginaw River Area MW-108S1 8.8 - 13.8 05/23/00	Saginaw River Area MW-108S2 22 - 27 07/13/95	Saginaw River Area MW-108S2 22 - 27 06/08/96	Saginaw River Area MW-108S3 39.8 - 44.8 07/13/95
Semivolatile Organics									
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	NA	NA	NA	5.0 U	5.0 U	5.0 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	5.0 U	5.0 U	NA	NA	NA	5.0 U	5.0 U	5.0 U
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	50 U	50 U	NA	NA	NA	50 U	50 U	50 U
2,4,6-Trichlorophenol	ug/L	5.0 U	5.0 U	NA	NA	NA	5.0 U	5.0 U	5.0 U
2,4-Dichlorophenol	ug/L	5.0 U	5.0 U	NA	NA	NA	5.0 U	5.0 U	5.0 U
2,4-Dimethylphenol	ug/L	5.0 U	5.0 U	NA	NA	NA	5.0 U	5.0 U	5.0 U
2,4-Dinitrophenol	ug/L	20 U	20 U	NA	NA	NA	20 U	20 U	20 U
2,4-Dinitrotoluene	ug/L	5.0 U	5.0 U	NA	NA	NA	5.0 U	5.0 U	5.0 U
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	5.0 U	5.0 U	NA	NA	NA	5.0 U	5.0 U	5.0 U
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	5.0 U	5.0 U	NA	NA	NA	5.0 U	5.0 U	5.0 U
2-Chlorophenol	ug/L	5.0 U	5.0 U	NA	NA	NA	5.0 U	5.0 U	5.0 U
2-Methylnaphthalene	ug/L	5.0 U	5.0 U	NA	NA	NA	5.0 U	5.0 U	5.0 U
2-Methylphenol	ug/L	5.0 U	5.0 U	NA	NA	NA	5.0 U	5.0 U	5.0 U
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	20 U	20 U	NA	NA	NA	20 U	20 U	20 U
2-Nitrophenol	ug/L	5.0 U	5.0 U	NA	NA	NA	5.0 U	5.0 U	5.0 U
2-Picoline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	20 U	20 U	NA	NA	NA	20 U	20 U	20 U
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	20 U	20 U	NA	NA	NA	20 U	20 U	20 U
4,6-Dinitro-2-methylphenol	ug/L	20 U	20 U	NA	NA	NA	20 U	20 U	20 U
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	5.0 U	5.0 U	NA	NA	NA	5.0 U	5.0 U	5.0 U
4-Chloro-3-Methylphenol	ug/L	5.0 U	5.0 U	NA	NA	NA	5.0 U	5.0 U	5.0 U
4-Chloroaniline	ug/L	20 U	20 U	NA	NA	NA	20 U	20 U	20 U
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	5.0 U	5.0 U	NA	NA	NA	5.0 U	5.0 U	5.0 U
4-Methylphenol	ug/L	5.0 U	5.0 U	NA	NA	NA	5.0 U	5.0 U	5.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	Saginaw River Area MW-108S1 8.8 - 13.8 07/13/95	Saginaw River Area MW-108S1 8.8 - 13.8 06/08/96	Saginaw River Area MW-108S1 8.8 - 13.8 03/10/97	Saginaw River Area MW-108S1 8.8 - 13.8 06/29/99	Saginaw River Area MW-108S1 8.8 - 13.8 05/23/00	Saginaw River Area MW-108S2 22 - 27 07/13/95	Saginaw River Area MW-108S2 22 - 27 06/08/96	Saginaw River Area MW-108S3 39.8 - 44.8 07/13/95
Semivolatile Organics (Cont'd.)									
4-Nitroaniline	ug/L	20 U	20 U	NA	NA	NA	20 U	20 U	20 U
4-Nitrophenol	ug/L	20 U	20 U	NA	NA	NA	20 U	20 U	20 U
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	5.0 U	5.0 U	NA	NA	NA	5.0 U	5.0 U	5.0 U
Acenaphthylene	ug/L	5.0 U	5.0 U	NA	NA	NA	5.0 U	5.0 U	5.0 U
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	5.0 U	5.0 U	NA	NA	NA	5.0 U	5.0 U	5.0 U
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	5.0 U	5.0 U	NA	NA	NA	5.0 U	5.0 U	5.0 U
Benzo(a)pyrene	ug/L	5.0 U	5.0 U	NA	NA	NA	5.0 U	5.0 U	5.0 U
Benzo(b)fluoranthene	ug/L	5.0 U	5.0 U	NA	NA	NA	5.0 U	5.0 U	5.0 U
Benzo(g,h,i)perylene	ug/L	5.0 U	5.0 U	NA	NA	NA	5.0 U	5.0 U	5.0 U
Benzo(k)fluoranthene	ug/L	5.0 U	5.0 U	NA	NA	NA	5.0 U	5.0 U	5.0 U
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	5.0 U	5.0 U	NA	NA	NA	5.0 U	5.0 U	5.0 U
bis(2-Chloroethyl)ether	ug/L	5.0 U	5.0 U	NA	NA	NA	5.0 U	5.0 U	5.0 U
bis(2-Ethylhexyl)phthalate	ug/L	5.0 U	5.0 U	NA	NA	NA	5.0 U	5.0 U	5.0 U
Butylbenzylphthalate	ug/L	5.0 U	5.0 U	NA	NA	NA	5.0 U	5.0 U	5.0 U
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	10 U	10 U	NA	NA	NA	10 U	10 U	10 U
Chrysene	ug/L	5.0 U	5.0 U	NA	NA	NA	5.0 U	5.0 U	5.0 U
Diallate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	5.0 U	5.0 U	NA	NA	NA	5.0 U	5.0 U	5.0 U
Dibenzofuran	ug/L	5.0 U	5.0 U	NA	NA	NA	5.0 U	5.0 U	5.0 U
Diethylphthalate	ug/L	5.0 U	5.0 U	NA	NA	NA	5.0 U	5.0 U	5.0 U
Dimethylphthalate	ug/L	5.0 U	5.0 U	NA	NA	NA	5.0 U	5.0 U	5.0 U
Di-n-Butylphthalate	ug/L	5.0 U	5.0 U	NA	NA	NA	5.0 U	5.0 U	5.0 U
Di-n-Octylphthalate	ug/L	5.0 U	5.0 U	NA	NA	NA	5.0 U	5.0 U	5.0 U
Diphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	5.0 U	5.0 U	NA	NA	NA	5.0 U	5.0 U	5.0 U
Fluorene	ug/L	5.0 U	5.0 U	NA	NA	NA	5.0 U	5.0 U	5.0 U
Hexachlorobenzene	ug/L	5.0 U	5.0 U	NA	NA	NA	5.0 U	5.0 U	5.0 U
Hexachlorobutadiene	ug/L	5.0 U	5.0 U	NA	NA	NA	5.0 U	5.0 U	5.0 U
Hexachlorocyclopentadiene	ug/L	5.0 U	5.0 U	NA	NA	NA	5.0 U	5.0 U	5.0 U
Hexachloroethane	ug/L	5.0 U	2.0 U	NA	NA	NA	5.0 U	2.0 U	5.0 U
Hexachloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	5.0 U	5.0 U	NA	NA	NA	5.0 U	5.0 U	5.0 U

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

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Semivolatile Organics (Cont'd.)									
Isophorone	ug/L	5.0 U	5.0 U	NA	NA	NA	5.0 U	5.0 U	5.0 U
Isosafrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	5.0 U	5.0 U	NA	NA	NA	5.0 U	5.0 U	5.0 U
Nitrobenzene	ug/L	5.0 U	5.0 U	NA	NA	NA	5.0 U	5.0 U	5.0 U
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	5.0 U	5.0 U	NA	NA	NA	5.0 U	5.0 U	5.0 U
N-Nitrosodiphenylamine	ug/L	5.0 U	5.0 U	NA	NA	NA	5.0 U	5.0 U	5.0 U
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	25 U	25 U	NA	NA	NA	25 UJ	25 U	25 U
Phenacetin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	5.0 U	5.0 U	NA	NA	NA	5.0 U	5.0 U	5.0 U
Phenol	ug/L	5.0 U	5.0 U	NA	NA	NA	5.0 U	5.0 U	5.0 U
Pronamide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	5.0 U	5.0 U	NA	NA	NA	5.0 UJ	5.0 U	5.0 U
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	5.0 U	5.0 U	NA	NA	NA	5.0 U	5.0 U	5.0 U
PCBs									
Aroclor-1016	ug/L	NA	NA	NA	0.10 U	0.20 U	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	0.10 U	0.20 U	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	0.10 U	0.40 U	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	0.10 U	0.20 U	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	0.10 U	0.20 U	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	0.10 U	0.20 U	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	0.10 U	0.20 U	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	0.10 U	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	0.10 U	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	0.10 U	0.40 U	NA	NA	NA
PCBs-Dissolved									
Aroclor-1016 (Dissolved)	ug/L	R	0.2 U	0.2 U	0.1 U	0.2 U	R	0.2 U	R
Aroclor-1221 (Dissolved)	ug/L	R	0.2 U	0.2 U	0.1 U	0.2 U	R	0.2 U	R
Aroclor-1232 (Dissolved)	ug/L	R	0.4 U	0.4 U	0.1 U	0.4 U	R	0.4 U	R
Aroclor-1242 (Dissolved)	ug/L	R	0.2 U	0.2 U	0.1 U	0.2 U	R	0.2 U	R

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SAGINAW, MICHIGAN

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PCBs-Dissolved (Cont'd.)									
Aroclor-1248 (Dissolved)	ug/L	R	0.2 U	0.2 U	0.1 U	0.2 U	R	0.2 U	R
Aroclor-1254 (Dissolved)	ug/L	R	0.2 U	0.2 U	0.1 U	0.2 U	R	0.2 U	R
Aroclor-1260 (Dissolved)	ug/L	R	0.2 U	0.2 U	0.1 U	0.2 U	R	0.2 U	R
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	0.1 U	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	0.1 U	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	R	0.4 U	0.4 U	0.1 U	0.4 U	R	0.4 U	R
Organochlorine Pesticides									
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	R	0.2 U	0.2 U	NA	NA	R	0.2 U	R
Aroclor-1221	ug/L	R	0.2 U	0.2 U	NA	NA	R	0.2 U	R
Aroclor-1232	ug/L	R	0.4 U	0.4 U	NA	NA	R	0.4 U	R
Aroclor-1242	ug/L	R	0.2 U	0.2 U	NA	NA	R	0.2 U	R
Aroclor-1248	ug/L	0.22	0.2 U	0.2 U	NA	NA	R	0.2 U	R
Aroclor-1254	ug/L	R	0.2 U	0.2 U	NA	NA	R	0.2 U	R
Aroclor-1260	ug/L	R	0.2 U	0.2 U	NA	NA	R	0.2 U	R
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Organophosphate Pesticides									
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area MW-108S1 8.8 - 13.8 07/13/95	Saginaw River Area MW-108S1 8.8 - 13.8 06/08/96	Saginaw River Area MW-108S1 8.8 - 13.8 03/10/97	Saginaw River Area MW-108S1 8.8 - 13.8 06/29/99	Saginaw River Area MW-108S1 8.8 - 13.8 05/23/00	Saginaw River Area MW-108S2 22 - 27 07/13/95	Saginaw River Area MW-108S2 22 - 27 06/08/96	Saginaw River Area MW-108S3 39.8 - 44.8 07/13/95
Organophosphate Pesticides (Cont'd.)									
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides									
2,4,5-T	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans									
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area MW-108S1 8.8 - 13.8 07/13/95	Saginaw River Area MW-108S1 8.8 - 13.8 06/08/96	Saginaw River Area MW-108S1 8.8 - 13.8 03/10/97	Saginaw River Area MW-108S1 8.8 - 13.8 06/29/99	Saginaw River Area MW-108S1 8.8 - 13.8 05/23/00	Saginaw River Area MW-108S2 22 - 27 07/13/95	Saginaw River Area MW-108S2 22 - 27 06/08/96	Saginaw River Area MW-108S3 39.8 - 44.8 07/13/95
Dioxins/Furans (Cont'd.)									
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area MW-108S3 39.8 - 44.8 06/08/96	Saginaw River Area MW-108S4 45 - 50 07/13/95	Saginaw River Area MW-108S4 45 - 50 06/08/96	Saginaw River Area MW-108WT 2.5 - 7.5 07/13/95	Saginaw River Area MW-108WT 2.5 - 7.5 06/08/96	Saginaw River Area MW-108WT 2.5 - 7.5 03/10/97	Saginaw River Area MW-109WT 3 - 8 07/13/95	Saginaw River Area MW-109WT 3 - 8 06/12/96
Volatile Organics									
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
1,2-Dichloroethene (total)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	50 U	50 UJ	50 U	50 U	50 U	NA	50 UJ	50 U
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	50 U	R	50 U	R	50 U	NA	R	50 U
3-Chloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U	50 U	50 U	50 U	50 U	NA	50 U	50 U
Acetone	ug/L	100 U	50 U	100 U	50 U	100 U	NA	50 U	100 U
Acetonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	NA	1.0 U	5.0 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
Bromomethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
Carbon Disulfide	ug/L	50 U	50 U	50 U	50 U	50 U	NA	50 U	50 U
Carbon Tetrachloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area MW-108S3 39.8 - 44.8 06/08/96	Saginaw River Area MW-108S4 45 - 50 07/13/95	Saginaw River Area MW-108S4 45 - 50 06/08/96	Saginaw River Area MW-108WT 2.5 - 7.5 07/13/95	Saginaw River Area MW-108WT 2.5 - 7.5 06/08/96	Saginaw River Area MW-108WT 2.5 - 7.5 03/10/97	Saginaw River Area MW-109WT 3 - 8 07/13/95	Saginaw River Area MW-109WT 3 - 8 06/12/96
Volatile Organics (Cont'd.)									
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
Chloroform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
Chloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
Cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1.0 U	1.0 U	0.40 J	1.0 U	1.0 U	NA	1.0 U	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	NA	1.0 U	5.0 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
Toluene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
Total 1,3-Dichloropropenes	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
Total Xylenes	ug/L	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	NA	3.0 U	3.0 U

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area MW-108S3 39.8 - 44.8 06/08/96	Saginaw River Area MW-108S4 45 - 50 07/13/95	Saginaw River Area MW-108S4 45 - 50 06/08/96	Saginaw River Area MW-108WT 2.5 - 7.5 07/13/95	Saginaw River Area MW-108WT 2.5 - 7.5 06/08/96	Saginaw River Area MW-108WT 2.5 - 7.5 03/10/97	Saginaw River Area MW-109WT 3 - 8 07/13/95	Saginaw River Area MW-109WT 3 - 8 06/12/96
Semivolatile Organics									
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.9 U	5.0 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.9 U	5.0 U
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	50 U	50 U	50 U	50 U	50 U	NA	59 U	50 U
2,4,6-Trichlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.9 U	5.0 U
2,4-Dichlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.9 U	5.0 U
2,4-Dimethylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.9 U	5.0 U
2,4-Dinitrophenol	ug/L	20 U	20 U	20 U	20 U	20 UJ	NA	23 U	20 U
2,4-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.9 U	5.0 U
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.9 U	5.0 U
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.9 U	5.0 U
2-Chlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.9 U	5.0 U
2-Methylnaphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.9 U	5.0 U
2-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.9 U	5.0 U
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	20 U	20 U	20 U	20 U	20 U	NA	23 U	20 U
2-Nitrophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.9 U	5.0 U
2-Picoline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	20 U	20 U	20 U	20 U	20 U	NA	23 U	20 U
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	20 U	20 U	20 U	20 U	20 U	NA	23 U	20 U
4,6-Dinitro-2-methylphenol	ug/L	20 U	20 U	20 U	20 U	20 U	NA	23 U	20 U
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.9 U	5.0 U
4-Chloro-3-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.9 U	5.0 U
4-Chloroaniline	ug/L	20 U	20 U	20 U	20 U	20 U	NA	23 U	20 U
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.9 U	5.0 U
4-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.9 U	5.0 U

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area MW-108S3 39.8 - 44.8 06/08/96	Saginaw River Area MW-108S4 45 - 50 07/13/95	Saginaw River Area MW-108S4 45 - 50 06/08/96	Saginaw River Area MW-108WT 2.5 - 7.5 07/13/95	Saginaw River Area MW-108WT 2.5 - 7.5 06/08/96	Saginaw River Area MW-108WT 2.5 - 7.5 03/10/97	Saginaw River Area MW-109WT 3 - 8 07/13/95	Saginaw River Area MW-109WT 3 - 8 06/12/96
Semivolatile Organics (Cont'd.)									
4-Nitroaniline	ug/L	20 U	20 U	20 U	20 U	20 U	NA	23 U	20 U
4-Nitrophenol	ug/L	20 U	20 U	20 U	20 U	20 U	NA	23 U	20 U
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.9 U	5.0 U
Acenaphthylene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.9 U	5.0 U
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.9 U	5.0 U
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.9 U	5.0 U
Benzo(a)pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.9 U	5.0 U
Benzo(b)fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.9 U	5.0 U
Benzo(g,h,i)perylene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.9 U	5.0 U
Benzo(k)fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.9 U	5.0 U
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.9 U	5.0 U
bis(2-Chloroethyl)ether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.9 U	5.0 U
bis(2-Ethylhexyl)phthalate	ug/L	5.0 U	4.0 J	15	5.0 U	5.0 UJ	NA	12	5.0 U
Butylbenzylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.9 U	5.0 U
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	10 U	10 U	10 U	10 U	10 U	NA	11 U	10 U
Chrysene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.9 U	5.0 U
Diallate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.9 U	5.0 U
Dibenzofuran	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.9 U	5.0 U
Diethylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.9 U	5.0 U
Dimethylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.9 U	5.0 U
Di-n-Butylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.9 U	5.0 U
Di-n-Octylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.9 U	5.0 U
Diphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.9 U	5.0 U
Fluorene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.9 U	5.0 U
Hexachlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.9 U	5.0 U
Hexachlorobutadiene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.9 U	5.0 U
Hexachlorocyclopentadiene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.9 U	5.0 U
Hexachloroethane	ug/L	2.0 U	5.0 U	2.0 U	5.0 U	2.0 U	NA	5.9 U	2.0 U
Hexachloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.9 U	5.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
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Semivolatile Organics (Cont'd.)									
Isophorone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.9 U	5.0 U
Isosafrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.9 U	5.0 U
Nitrobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.9 U	5.0 U
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.9 U	5.0 U
N-Nitrosodiphenylamine	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.9 U	5.0 U
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	25 U	25 U	25 U	20 U	25 U	NA	29 U	25 U
Phenacetin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.9 U	5.0 U
Phenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.9 U	5.0 U
Pronamide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.9 U	5.0 U
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.9 U	5.0 U
PCBs									
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
PCBs-Dissolved									
Aroclor-1016 (Dissolved)	ug/L	0.2 U	R	0.2 U	R	0.2 U	0.2 U	R	0.2 U
Aroclor-1221 (Dissolved)	ug/L	0.2 U	R	0.2 U	R	0.2 U	0.2 U	R	0.2 U
Aroclor-1232 (Dissolved)	ug/L	0.4 U	R	0.4 U	R	0.4 U	0.4 U	R	0.4 U
Aroclor-1242 (Dissolved)	ug/L	0.2 U	R	0.2 U	R	0.2 U	0.2 U	R	0.2 U

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PCBs-Dissolved (Cont'd.)									
Aroclor-1248 (Dissolved)	ug/L	0.2 U	R	0.2 U	R	0.2 U	0.2 U	R	0.2 U
Aroclor-1254 (Dissolved)	ug/L	0.2 U	R	0.2 U	R	0.2 U	0.2 U	R	0.2 U
Aroclor-1260 (Dissolved)	ug/L	0.2 U	R	0.2 U	R	0.2 U	0.2 U	R	0.2 U
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	0.4 U	R	0.4 U	R	0.4 U	0.4 U	R	0.4 U
Organochlorine Pesticides									
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	0.2 U	R	0.2 U	R	0.2 U	0.2 U	R	0.2 U
Aroclor-1221	ug/L	0.2 U	R	0.2 U	R	0.2 U	0.2 U	R	0.2 U
Aroclor-1232	ug/L	0.4 U	R	0.4 U	R	0.4 U	0.4 U	R	0.4 U
Aroclor-1242	ug/L	0.2 U	R	0.2 U	R	0.2 U	0.2 U	R	0.2 U
Aroclor-1248	ug/L	0.2 U	R	0.2 U	R	0.2 U	0.2 U	R	0.2 U
Aroclor-1254	ug/L	0.2 U	R	0.2 U	R	0.2 U	0.2 U	R	0.2 U
Aroclor-1260	ug/L	0.2 U	R	0.2 U	R	0.2 U	0.2 U	R	0.2 U
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Organophosphate Pesticides									
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

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Organophosphate Pesticides (Cont'd.)									
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides									
2,4,5-T	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans									
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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Dioxins/Furans (Cont'd.)									
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area MW-109WT 3 - 8 03/10/97	Saginaw River Area MW-110WT 06/12/96	Saginaw River Area MW-110WT 03/06/97	Saginaw River Area MW-110WT 12/10/97	Saginaw River Area MW-110WT 05/22/00	Saginaw River Area MW-110WTR 10 - 15 06/02/04	Saginaw River Area MW-110WTR 10 - 15 08/24/05	Saginaw River Area MW-110WTR 10 - 15 04/02/08
Volatile Organics									
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	NA	1.0 U	NA	100 U	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	ug/L	NA	1.0 U	NA	100 U	NA	NA	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	NA	1.0 U	NA	100 U	NA	NA	NA	NA
1,1-Dichloroethane	ug/L	NA	1.0 U	NA	100 U	NA	NA	NA	NA
1,1-Dichloroethene	ug/L	NA	1.0 U	NA	5.2	NA	NA	NA	NA
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	1.0 U	NA	12	NA	NA	NA	NA
1,2-Dichloroethane	ug/L	NA	1.0 U	NA	100 U	NA	NA	NA	NA
1,2-Dichloroethene (total)	ug/L	NA	1.0 U	NA	3,900	NA	NA	NA	NA
1,2-Dichloropropane	ug/L	NA	1.0 U	NA	100 U	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	1.0 U	NA	100 U	NA	NA	NA	NA
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	1.0 U	NA	14	NA	NA	NA	NA
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	NA	50 U	NA	1,000 UJ	NA	NA	NA	NA
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	NA	50 U	NA	1,000 UJ	NA	NA	NA	NA
3-Chloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	NA	50 U	NA	1,000 U	NA	NA	NA	NA
Acetone	ug/L	NA	100 U	NA	1,000 U	NA	NA	NA	NA
Acetonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	NA	5.0 U	NA	500 U	NA	NA	NA	NA
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	NA	1.0 U	NA	100 U	NA	NA	NA	NA
Bromoform	ug/L	NA	1.0 U	NA	100 U	NA	NA	NA	NA
Bromomethane	ug/L	NA	1.0 U	NA	100 U	NA	NA	NA	NA
Carbon Disulfide	ug/L	NA	50 U	NA	500 U	NA	NA	NA	NA
Carbon Tetrachloride	ug/L	NA	1.0 U	NA	100 U	NA	NA	NA	NA
Chlorobenzene	ug/L	NA	1.0 U	NA	200	NA	NA	NA	NA

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SAGINAW, MICHIGAN

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Volatile Organics (Cont'd.)									
Chloroethane	ug/L	NA	1.0 U	NA	100 U	NA	NA	NA	NA
Chloroform	ug/L	NA	1.0 U	NA	100 U	NA	NA	NA	NA
Chloromethane	ug/L	NA	1.0 U	NA	100 U	NA	NA	NA	NA
cis-1,2-Dichloroethene	ug/L	NA	1.0 U	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	ug/L	NA	1.0 U	NA	100 U	NA	NA	NA	NA
Cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	NA	1.0 U	NA	100 U	NA	NA	NA	NA
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	NA	1.0 U	NA	12	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	NA	5.0 U	NA	500 U	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	NA	1.0 U	NA	100 U	NA	NA	NA	NA
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	NA	1.0 U	NA	100 U	NA	NA	NA	NA
Toluene	ug/L	NA	1.0 U	NA	7.9	NA	NA	NA	NA
trans-1,2-Dichloroethene	ug/L	NA	1.0 U	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	ug/L	NA	1.0 U	NA	100 U	NA	NA	NA	NA
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	NA	1.0 U	NA	100 U	NA	NA	NA	NA
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	NA	1.0 U	NA	3,400	NA	NA	NA	NA
Total 1,3-Dichloropropenes	ug/L	NA	1.0 U	NA	100 U	NA	NA	NA	NA
Total Xylenes	ug/L	NA	3.0 U	NA	4.2	NA	NA	NA	NA

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Semivolatile Organics									
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	5.0 U	NA	5.0 U	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	NA	5.0 U	NA	12	NA	NA	NA	NA
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	50 U	NA	50 U	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	5.0 U	NA	5.0 U	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	5.0 U	NA	5.0 U	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	5.0 U	NA	5.0 U	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	20 U	NA	20 UJ	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	5.0 U	NA	5.0 U	NA	NA	NA	NA
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	5.0 U	NA	5.0 U	NA	NA	NA	NA
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	5.0 U	NA	5.0 U	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	5.0 U	NA	5.0 U	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	5.0 U	NA	5.0 U	NA	NA	NA	NA
2-Methylphenol	ug/L	NA	5.0 U	NA	5.0 U	NA	NA	NA	NA
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	20 U	NA	20 U	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	5.0 U	NA	5.0 U	NA	NA	NA	NA
2-Picoline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	20 U	NA	20 U	NA	NA	NA	NA
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	20 U	NA	20 U	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	20 U	NA	20 U	NA	NA	NA	NA
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	5.0 U	NA	5.0 U	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	5.0 U	NA	5.0 U	NA	NA	NA	NA
4-Chloroaniline	ug/L	NA	20 U	NA	20 U	NA	NA	NA	NA
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	5.0 U	NA	5.0 U	NA	NA	NA	NA
4-Methylphenol	ug/L	NA	5.0 U	NA	5.0 U	NA	NA	NA	NA

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Semivolatile Organics (Cont'd.)									
4-Nitroaniline	ug/L	NA	20 U	NA	20 U	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	20 U	NA	20 U	NA	NA	NA	NA
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	5.0 U	NA	5.0 U	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	5.0 U	NA	5.0 U	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	5.0 U	NA	5.0 U	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	5.0 U	NA	5.0 U	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	NA	5.0 U	NA	5.0 U	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	NA	5.0 U	NA	5.0 U	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	5.0 U	NA	5.0 U	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	NA	5.0 U	NA	5.0 U	NA	NA	NA	NA
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	5.0 U	NA	5.0 U	NA	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	NA	5.0 U	NA	5.0 U	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	5.0 U	NA	5.0 U	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	NA	5.0 U	NA	5.0 U	NA	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	10 U	NA	5.0 U	NA	NA	NA	NA
Chrysene	ug/L	NA	5.0 U	NA	5.0 U	NA	NA	NA	NA
Diallate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	5.0 U	NA	5.0 U	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	5.0 U	NA	5.0 U	NA	NA	NA	NA
Diethylphthalate	ug/L	NA	5.0 U	NA	5.0 U	NA	NA	NA	NA
Dimethylphthalate	ug/L	NA	5.0 U	NA	5.0 U	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	NA	5.0 U	NA	5.0 U	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	NA	5.0 U	NA	5.0 U	NA	NA	NA	NA
Diphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	5.0 U	NA	5.0 U	NA	NA	NA	NA
Fluorene	ug/L	NA	5.0 U	NA	5.0 U	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	5.0 U	NA	5.0 U	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	5.0 U	NA	5.0 U	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	5.0 U	NA	5.0 U	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	2.0 U	NA	5.0 U	NA	NA	NA	NA
Hexachloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	5.0 U	NA	5.0 U	NA	NA	NA	NA

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Semivolatile Organics (Cont'd.)									
Isophorone	ug/L	NA	5.0 U	NA	5.0 U	NA	NA	NA	NA
Isosafrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	5.0 U	NA	5.0 U	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	5.0 U	NA	5.0 U	NA	NA	NA	NA
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	5.0 U	NA	5.0 U	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	NA	5.0 U	NA	5.0 U	NA	NA	NA	NA
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	25 U	NA	20 U	NA	NA	NA	NA
Phenacetin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	5.0 U	NA	5.0 U	NA	NA	NA	NA
Phenol	ug/L	NA	5.0 U	NA	5.0 U	NA	NA	NA	NA
Pronamide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	5.0 U	NA	5.0 U	NA	NA	NA	NA
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	NA	5.0 U	NA	5.0 U	NA	NA	NA	NA
PCBs									
Aroclor-1016	ug/L	NA	NA	NA	NA	0.20 U	NA	0.20 U [0.20 U]	0.20 U
Aroclor-1221	ug/L	NA	NA	NA	NA	0.20 U	NA	0.20 U [0.20 U]	0.20 U
Aroclor-1232	ug/L	NA	NA	NA	NA	0.40 U	NA	0.20 U [0.20 U]	0.20 U
Aroclor-1242	ug/L	NA	NA	NA	NA	0.20 U	NA	0.20 U [0.20 U]	0.20 U
Aroclor-1248	ug/L	NA	NA	NA	NA	0.20 U	NA	0.20 U [0.20 U]	0.20 U
Aroclor-1254	ug/L	NA	NA	NA	NA	0.20 U	NA	0.20 U [0.20 U]	0.20 U
Aroclor-1260	ug/L	NA	NA	NA	NA	0.20 U	NA	0.20 U [0.20 U]	0.20 U
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	0.40 U	NA	0.20 U [0.20 U]	0.20 U
PCBs-Dissolved									
Aroclor-1016 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U
Aroclor-1221 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U
Aroclor-1232 (Dissolved)	ug/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.2 U [0.2 U]	0.2 U
Aroclor-1242 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U

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TABLE A-1
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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

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PCBs-Dissolved (Cont'd.)									
Aroclor-1248 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U
Aroclor-1254 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U
Aroclor-1260 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.2 U [0.2 U]	0.2 U
Organochlorine Pesticides									
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	NA	NA
Aroclor-1221	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	NA	NA
Aroclor-1232	ug/L	0.4 U	0.4 U	0.4 U	0.4 U	NA	NA	NA	NA
Aroclor-1242	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	NA	NA
Aroclor-1248	ug/L	0.2 U	0.2 U	0.23	0.2 U	NA	NA	NA	NA
Aroclor-1254	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	NA	NA
Aroclor-1260	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Organophosphate Pesticides									
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

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Organophosphate Pesticides (Cont'd.)									
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides									
2,4,5-T	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans									
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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Dioxins/Furans (Cont'd.)									
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

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Volatile Organics									
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	2.0 U	1.0 U	NA	NA
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	2.0 U	1.0 U	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	2.0 U	1.0 U	NA	NA
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	2.0 U	1.0 U	NA	NA
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	2.0 U	1.0 U	NA	NA
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	2.0 U	1.0 U	NA	NA
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	2.0 U	1.0 U	NA	NA
1,2-Dichloroethene (total)	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	2.0 U	1.0 U	NA	NA
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	2.0 U	1.0 U	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	2.0 U	1.0 U	NA	NA
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	2.0 U	1.0 U	NA	NA
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	50 UJ	50 U	50 UJ [50 UJ]	50 U	12 J	4.2 J	NA	NA
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	R	50 U	R [R]	50 U	R	50 U	NA	NA
3-Chloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U	50 U	50 U [50 U]	50 U	100 U	50 U	NA	NA
Acetone	ug/L	50 U	100 U	50 U [50 U]	100 U	64 J	42 J	NA	NA
Acetonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	1.0 U	5.0 U	1.0 U [1.0 U]	5.0 U	2.0 U	5.0 U	NA	NA
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	2.0 U	1.0 U	NA	NA
Bromoform	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	2.0 U	1.0 U	NA	NA
Bromomethane	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	2.0 U	1.0 U	NA	NA
Carbon Disulfide	ug/L	50 U	50 U	50 U [50 U]	50 U	100 U	5.8 J	NA	NA
Carbon Tetrachloride	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	2.0 U	1.0 U	NA	NA
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	2.0 U	1.0 U	NA	NA

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Volatile Organics (Cont'd.)									
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	2.0 U	1.0 U	NA	NA
Chloroform	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	2.0 U	1.0 U	NA	NA
Chloromethane	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	2.0 U	1.0 U	NA	NA
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	2.0 U	1.0 U	NA	NA
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	2.0 U	1.0 U	NA	NA
Cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	2.0 U	1.0 U	NA	NA
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	2.0 U	1.0 U	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	1.0 U	5.0 U	1.0 U [1.0 U]	5.0 U	2.0 U	5.0 U	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	2.0 U	1.0 U	NA	NA
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	2.0 U	1.0 U	NA	NA
Toluene	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	2.0 U	1.0 U	NA	NA
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	2.0 U	1.0 U	NA	NA
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	2.0 U	1.0 U	NA	NA
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	2.0 U	1.0 U	NA	NA
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	2.0 U	1.0 U	NA	NA
Total 1,3-Dichloropropenes	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	2.0 U	1.0 U	NA	NA
Total Xylenes	ug/L	3.0 U	3.0 U	3.0 U [3.0 U]	3.0 U	6.0 U	3.0 U	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area MW-111S1 12 - 17 07/14/95	Saginaw River Area MW-111S1 12 - 17 06/12/96	Saginaw River Area MW-111S2 25 - 30 07/13/95	Saginaw River Area MW-111S2 25 - 30 06/10/96	Saginaw River Area MW-111S3 36 - 41 07/13/95	Saginaw River Area MW-111S3 36 - 41 06/10/96	Saginaw River Area MW-111S3 36 - 41 06/29/99	Saginaw River Area MW-111S3 36 - 41 05/19/00
Semivolatile Organics									
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	12 U	5.0 U	5.0 U	5.0 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	5.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	5.0 U	1.0 U
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	5.0 U	1.0 U
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	12 U	5.0 U	5.0 U	5.0 U
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	50 U	50 U	50 U [50 U]	50 U	R	50 U	R	5.0 U
2,4,6-Trichlorophenol	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	R	5.0 U	R	5.0 U
2,4-Dichlorophenol	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	R	5.0 U	R	10 U
2,4-Dimethylphenol	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	R	5.0 U	R	5.0 U
2,4-Dinitrophenol	ug/L	20 U	20 U	20 U [20 U]	20 U	R	20 U	R	20 U
2,4-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	12 U	5.0 U	5.0 U	5.0 U
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	12 U	5.0 U	5.0 U	5.0 U
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	12 U	5.0 U	5.0 U	5.0 U
2-Chlorophenol	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	R	5.0 U	R	5.0 U
2-Methylnaphthalene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	12 U	5.0 U	5.0 U	5.0 U
2-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	R	5.0 U	R	5.0 U
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	20 U	20 U	20 U [20 U]	20 U	50 U	20 U	20 U	20 U
2-Nitrophenol	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	R	5.0 U	R	5.0 U
2-Picoline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	R	NA
3,3'-Dichlorobenzidine	ug/L	20 U	20 U	20 U [20 U]	20 U	50 UJ	20 U	20 U	20 U
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	20 U	20 U	20 U [20 U]	20 U	50 U	20 U	20 U	20 U
4,6-Dinitro-2-methylphenol	ug/L	20 U	20 U	20 U [20 U]	20 U	R	20 U	R	20 U
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	12 U	5.0 U	5.0 U	5.0 U
4-Chloro-3-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	R	5.0 U	R	5.0 U
4-Chloroaniline	ug/L	20 U	20 U	20 U [20 U]	20 U	50 U	20 U	20 U	10 U
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	12 U	5.0 U	5.0 U	5.0 U
4-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	R	5.0 U	NA	5.0 U

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ORGANIC COMPOUNDS

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SAGINAW, MICHIGAN

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Semivolatile Organics (Cont'd.)									
4-Nitroaniline	ug/L	20 U	20 U	20 U [20 U]	20 U	50 U	20 U	20 U	20 U
4-Nitrophenol	ug/L	20 U	20 U	20 U [20 U]	20 U	R	20 U	R	20 U
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	12 U	5.0 U	5.0 U	5.0 U
Acenaphthylene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	12 U	5.0 U	5.0 U	5.0 U
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	12 U	5.0 U	5.0 UJ	5.0 U
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	12 UJ	5.0 U	5.0 U	5.0 U
Benzo(a)pyrene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	12 U	5.0 U	5.0 U	5.0 U
Benzo(b)fluoranthene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	12 U	5.0 U	5.0 U	5.0 U
Benzo(g,h,i)perylene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	12 U	5.0 U	5.0 U	5.0 U
Benzo(k)fluoranthene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	12 U	5.0 U	5.0 U	5.0 U
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	12 U	5.0 U	5.0 U	5.0 U
bis(2-Chloroethyl)ether	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	12 U	5.0 U	5.0 U	5.0 U
bis(2-Ethylhexyl)phthalate	ug/L	1.9 J	8.9	5.0 U [1.1 J]	5.0 U	12 U	5.0 U	5.0 U	5.0 U
Butylbenzylphthalate	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	12 UJ	5.0 U	5.0 U	5.0 U
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	10 U	10 U	10 U [10 U]	10 U	25 U	10 U	5.0 U	10 U
Chrysene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	12 UJ	5.0 U	5.0 U	5.0 U
Diallate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	12 U	5.0 U	5.0 U	5.0 U
Dibenzofuran	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	12 U	5.0 U	5.0 U	5.0 U
Diethylphthalate	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	12 U	5.0 U	5.0 U	5.0 U
Dimethylphthalate	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	12 U	5.0 U	5.0 U	5.0 U
Di-n-Butylphthalate	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	12 U	5.0 U	5.0 U	5.0 U
Di-n-Octylphthalate	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	12 U	5.0 U	5.0 U	5.0 U
Diphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	12 U	5.0 U	5.0 U	5.0 U
Fluorene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	12 U	5.0 U	5.0 U	5.0 U
Hexachlorobenzene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	12 U	5.0 U	NA	5.0 U
Hexachlorobutadiene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	12 U	5.0 U	5.0 U	5.0 U
Hexachlorocyclopentadiene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	12 U	5.0 U	5.0 U	5.0 U
Hexachloroethane	ug/L	5.0 U	2.0 U	5.0 U [5.0 U]	2.0 U	12 U	2.0 U	5.0 U	5.0 U
Hexachloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	12 U	5.0 U	5.0 U	5.0 U

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Semivolatile Organics (Cont'd.)									
Isophorone	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	12 U	5.0 U	5.0 U	5.0 U
Isosafrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	12 U	5.0 U	5.0 U	5.0 U
Nitrobenzene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	12 U	5.0 U	5.0 U	5.0 U
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	12 U	5.0 U	5.0 U	5.0 U
N-Nitrosodiphenylamine	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	12 U	5.0 U	5.0 U	5.0 U
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	20 U	25 U	25 UJ [25 UJ]	25 U	R	25 U	R	1.0 U
Phenacetin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	12 U	5.0 U	5.0 U	5.0 U
Phenol	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	R	6,200 D	R	33
Pronamide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	5.0 U	5.0 U	5.0 UJ [5.0 UJ]	5.0 U	12 UJ	5.0 U	5.0 U	5.0 U
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	R	5.0 U	R	5.0 U
PCBs									
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
PCBs-Dissolved									
Aroclor-1016 (Dissolved)	ug/L	0.21 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	0.1 U	NA
Aroclor-1221 (Dissolved)	ug/L	0.21 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	0.1 U	NA
Aroclor-1232 (Dissolved)	ug/L	0.42 U	0.4 U	0.4 U [0.4 U]	0.4 U	0.4 U	0.4 U	0.1 U	NA
Aroclor-1242 (Dissolved)	ug/L	0.21 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	0.1 U	NA

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PCBs-Dissolved (Cont'd.)									
Aroclor-1248 (Dissolved)	ug/L	0.21 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	0.1 U	NA
Aroclor-1254 (Dissolved)	ug/L	0.21 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	0.1 U	NA
Aroclor-1260 (Dissolved)	ug/L	0.21 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	0.1 U	NA
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	0.1 U	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	0.1 U	NA
Total PCBs (Dissolved)	ug/L	0.42 U	0.4 U	0.4 U [0.4 U]	0.4 U	0.4 U	0.4 U	0.1 U	NA
Organochlorine Pesticides									
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	NA	NA
Aroclor-1221	ug/L	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	NA	NA
Aroclor-1232	ug/L	0.41 U	0.4 U	0.4 U [0.4 U]	0.4 U	0.4 U	0.4 U	NA	NA
Aroclor-1242	ug/L	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	NA	NA
Aroclor-1248	ug/L	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	NA	NA
Aroclor-1254	ug/L	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	NA	NA
Aroclor-1260	ug/L	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Organophosphate Pesticides									
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area MW-111S1 12 - 17 07/14/95	Saginaw River Area MW-111S1 12 - 17 06/12/96	Saginaw River Area MW-111S2 25 - 30 07/13/95	Saginaw River Area MW-111S2 25 - 30 06/10/96	Saginaw River Area MW-111S3 36 - 41 07/13/95	Saginaw River Area MW-111S3 36 - 41 06/10/96	Saginaw River Area MW-111S3 36 - 41 06/29/99	Saginaw River Area MW-111S3 36 - 41 05/19/00
Organophosphate Pesticides (Cont'd.)									
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides									
2,4,5-T	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans									
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area MW-111S1 12 - 17 07/14/95	Saginaw River Area MW-111S1 12 - 17 06/12/96	Saginaw River Area MW-111S2 25 - 30 07/13/95	Saginaw River Area MW-111S2 25 - 30 06/10/96	Saginaw River Area MW-111S3 36 - 41 07/13/95	Saginaw River Area MW-111S3 36 - 41 06/10/96	Saginaw River Area MW-111S3 36 - 41 06/29/99	Saginaw River Area MW-111S3 36 - 41 05/19/00
Dioxins/Furans (Cont'd.)									
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area MW-111S4 46 - 51 07/14/95	Saginaw River Area MW-111S4 46 - 51 06/10/96	Saginaw River Area MW-111S4 46 - 51 03/07/97	Saginaw River Area MW-111S4 46 - 51 07/02/99	Saginaw River Area MW-111S4 46 - 51 05/23/00	Saginaw River Area MW-111WT 5.5 - 10.5 07/14/95	Saginaw River Area MW-111WT 5.5 - 10.5 06/12/96	Saginaw River Area MW-111WT 5.5 - 10.5 03/07/97
Volatile Organics									
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	1.0 U	NA
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	1.0 U	NA
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	1.0 U	NA
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	1.0 U	NA
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	1.0 U	NA
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	1.0 U	NA
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	1.0 U	NA
1,2-Dichloroethene (total)	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	1.0 U	NA
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	1.0 U	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	1.0 U	NA
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	1.0 U	NA
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	50 UJ	50 U	NA	NA	NA	50 UJ	50 U	NA
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	R	50 U	NA	NA	NA	R	50 U	NA
3-Chloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U	50 U	NA	NA	NA	50 U	50 U	NA
Acetone	ug/L	7.8 J	21 J	NA	NA	NA	50 U	100 U	NA
Acetonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	1.0 U	5.0 U	NA	NA	NA	1.0 U	5.0 U	NA
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	1.0 U	NA
Bromoform	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	1.0 U	NA
Bromomethane	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	1.0 U	NA
Carbon Disulfide	ug/L	50 U	3.2 J	NA	NA	NA	50 U	50 U	NA
Carbon Tetrachloride	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	1.0 U	NA
Chlorobenzene	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	1.0 U	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area MW-111S4 46 - 51 07/14/95	Saginaw River Area MW-111S4 46 - 51 06/10/96	Saginaw River Area MW-111S4 46 - 51 03/07/97	Saginaw River Area MW-111S4 46 - 51 07/02/99	Saginaw River Area MW-111S4 46 - 51 05/23/00	Saginaw River Area MW-111WT 5.5 - 10.5 07/14/95	Saginaw River Area MW-111WT 5.5 - 10.5 06/12/96	Saginaw River Area MW-111WT 5.5 - 10.5 03/07/97
Volatile Organics (Cont'd.)									
Chloroethane	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	1.0 U	NA
Chloroform	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	1.0 U	NA
Chloromethane	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	1.0 U	NA
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	1.0 U	NA
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	1.0 U	NA
Cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	1.0 U	NA
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	1.0 U	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	1.0 U	5.0 U	NA	NA	NA	1.0 U	5.0 U	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	1.0 U	NA
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	1.0 U	NA
Toluene	ug/L	1.0 U	1.0 U	NA	NA	NA	12	1.0 U	NA
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	1.0 U	NA
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	1.0 U	NA
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	1.0 U	NA
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	1.0 U	NA
Total 1,3-Dichloropropenes	ug/L	1.0 U	1.0 U	NA	NA	NA	1.0 U	1.0 U	NA
Total Xylenes	ug/L	3.0 U	3.0 U	NA	NA	NA	3.0 U	3.0 U	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area MW-111S4 46 - 51 07/14/95	Saginaw River Area MW-111S4 46 - 51 06/10/96	Saginaw River Area MW-111S4 46 - 51 03/07/97	Saginaw River Area MW-111S4 46 - 51 07/02/99	Saginaw River Area MW-111S4 46 - 51 05/23/00	Saginaw River Area MW-111WT 5.5 - 10.5 07/14/95	Saginaw River Area MW-111WT 5.5 - 10.5 06/12/96	Saginaw River Area MW-111WT 5.5 - 10.5 03/07/97
Semivolatile Organics									
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5.0 U	10 U	NA	NA	NA	5.0 U	5.0 U	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	5.0 U	10 U	NA	NA	NA	5.0 U	5.0 U	NA
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	50 U	100 U	NA	NA	NA	50 U	50 U	NA
2,4,6-Trichlorophenol	ug/L	5.0 U	10 U	NA	NA	NA	5.0 U	5.0 U	NA
2,4-Dichlorophenol	ug/L	5.0 U	10 U	NA	NA	NA	5.0 U	5.0 U	NA
2,4-Dimethylphenol	ug/L	5.0 U	10 U	NA	NA	NA	5.0 U	5.0 U	NA
2,4-Dinitrophenol	ug/L	20 U	40 U	NA	NA	NA	20 U	20 U	NA
2,4-Dinitrotoluene	ug/L	5.0 U	10 U	NA	NA	NA	5.0 U	5.0 U	NA
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	5.0 U	10 U	NA	NA	NA	5.0 U	5.0 U	NA
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	5.0 U	10 U	NA	NA	NA	5.0 U	5.0 U	NA
2-Chlorophenol	ug/L	5.0 U	10 U	NA	NA	NA	5.0 U	5.0 U	NA
2-Methylnaphthalene	ug/L	5.0 U	10 U	NA	NA	NA	5.0 U	5.0 U	NA
2-Methylphenol	ug/L	5.0 U	10 U	NA	NA	NA	5.0 U	5.0 U	NA
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	20 U	40 U	NA	NA	NA	20 U	20 U	NA
2-Nitrophenol	ug/L	5.0 U	10 U	NA	NA	NA	5.0 U	5.0 U	NA
2-Picoline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	20 U	40 U	NA	NA	NA	20 U	20 U	NA
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	20 U	40 U	NA	NA	NA	20 U	20 U	NA
4,6-Dinitro-2-methylphenol	ug/L	20 U	40 U	NA	NA	NA	20 U	20 U	NA
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	5.0 U	10 U	NA	NA	NA	5.0 U	5.0 U	NA
4-Chloro-3-Methylphenol	ug/L	5.0 U	10 U	NA	NA	NA	5.0 U	5.0 U	NA
4-Chloroaniline	ug/L	20 U	40 U	NA	NA	NA	20 U	20 U	NA
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	5.0 U	10 U	NA	NA	NA	5.0 U	5.0 U	NA
4-Methylphenol	ug/L	5.0 U	10 U	NA	NA	NA	5.0 U	5.0 U	NA

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TABLE A-1
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GENERAL MOTORS CORPORATION
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SAGINAW, MICHIGAN

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Semivolatile Organics (Cont'd.)									
4-Nitroaniline	ug/L	20 U	40 U	NA	NA	NA	20 U	20 U	NA
4-Nitrophenol	ug/L	20 U	40 U	NA	NA	NA	20 U	20 U	NA
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	5.0 U	10 U	NA	NA	NA	5.0 U	5.0 U	NA
Acenaphthylene	ug/L	5.0 U	10 U	NA	NA	NA	5.0 U	5.0 U	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	5.0 U	10 U	NA	NA	NA	5.0 U	5.0 U	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	5.0 U	10 U	NA	NA	NA	5.0 U	5.0 U	NA
Benzo(a)pyrene	ug/L	5.0 U	10 U	NA	NA	NA	5.0 U	5.0 U	NA
Benzo(b)fluoranthene	ug/L	5.0 U	10 U	NA	NA	NA	5.0 U	5.0 U	NA
Benzo(g,h,i)perylene	ug/L	5.0 U	10 U	NA	NA	NA	5.0 U	5.0 U	NA
Benzo(k)fluoranthene	ug/L	5.0 U	10 U	NA	NA	NA	5.0 U	5.0 U	NA
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	5.0 U	10 U	NA	NA	NA	5.0 U	5.0 U	NA
bis(2-Chloroethyl)ether	ug/L	5.0 U	10 U	NA	NA	NA	5.0 U	5.0 U	NA
bis(2-Ethylhexyl)phthalate	ug/L	5.0 U	10 U	NA	NA	NA	54	5.0 U	NA
Butylbenzylphthalate	ug/L	5.0 U	10 U	NA	NA	NA	5.0 U	5.0 U	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	10 U	20 U	NA	NA	NA	10 U	10 U	NA
Chrysene	ug/L	5.0 U	10 U	NA	NA	NA	5.0 U	5.0 U	NA
Diallate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	5.0 U	10 U	NA	NA	NA	5.0 U	5.0 U	NA
Dibenzofuran	ug/L	5.0 U	10 U	NA	NA	NA	5.0 U	5.0 U	NA
Diethylphthalate	ug/L	5.0 U	10 U	NA	NA	NA	5.0 U	5.0 U	NA
Dimethylphthalate	ug/L	5.0 U	10 U	NA	NA	NA	5.0 U	5.0 U	NA
Di-n-Butylphthalate	ug/L	5.0 U	10 U	NA	NA	NA	5.0 U	5.0 U	NA
Di-n-Octylphthalate	ug/L	5.0 U	10 U	NA	NA	NA	5.0 U	5.0 U	NA
Diphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	5.0 U	10 U	NA	NA	NA	5.0 U	5.0 U	NA
Fluorene	ug/L	5.0 U	10 U	NA	NA	NA	5.0 U	5.0 U	NA
Hexachlorobenzene	ug/L	5.0 U	10 U	NA	NA	NA	5.0 U	5.0 U	NA
Hexachlorobutadiene	ug/L	5.0 U	10 U	NA	NA	NA	5.0 U	5.0 U	NA
Hexachlorocyclopentadiene	ug/L	5.0 U	10 U	NA	NA	NA	5.0 U	5.0 U	NA
Hexachloroethane	ug/L	5.0 U	4.0 U	NA	NA	NA	5.0 U	2.0 U	NA
Hexachloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	5.0 U	10 U	NA	NA	NA	5.0 U	5.0 U	NA

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Semivolatile Organics (Cont'd.)									
Isophorone	ug/L	5.0 U	10 U	NA	NA	NA	5.0 U	5.0 U	NA
Isosafrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	5.0 U	10 U	NA	NA	NA	5.0 U	5.0 U	NA
Nitrobenzene	ug/L	5.0 U	10 U	NA	NA	NA	5.0 U	5.0 U	NA
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	5.0 U	10 U	NA	NA	NA	5.0 U	5.0 U	NA
N-Nitrosodiphenylamine	ug/L	5.0 U	10 U	NA	NA	NA	5.0 U	5.0 U	NA
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	20 UJ	50 U	NA	NA	NA	20 U	25 U	NA
Phenacetin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	5.0 U	10 U	NA	NA	NA	5.0 U	5.0 U	NA
Phenol	ug/L	97 D	110 D	NA	NA	NA	5.0 U	5.0 U	NA
Pronamide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	5.0 UJ	10 U	NA	NA	NA	5.0 U	5.0 U	NA
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	5.0 U	10 U	NA	NA	NA	5.0 U	5.0 U	NA
PCBs									
Aroclor-1016	ug/L	NA	NA	NA	0.10 U	0.20 U	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	0.10 U	0.20 U	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	0.10 U	0.40 U	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	0.10 U	0.20 U	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	0.10 U	0.20 U	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	0.10 U	0.20 U	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	0.10 U	0.20 U	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	0.10 U	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	0.10 U	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	0.10 U	0.40 U	NA	NA	NA
PCBs-Dissolved									
Aroclor-1016 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.1 U	0.2 U	0.21 U	0.2 U	0.2 U
Aroclor-1221 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.1 U	0.2 U	0.21 U	0.2 U	0.2 U
Aroclor-1232 (Dissolved)	ug/L	0.4 U	0.4 U	0.4 U	0.1 U	0.4 U	0.42 U	0.4 U	0.4 U
Aroclor-1242 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.1 U	0.2 U	0.21 U	0.2 U	0.2 U

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PCBs-Dissolved (Cont'd.)									
Aroclor-1248 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.1 U	0.2 U	0.21 U	0.2 U	0.2 U
Aroclor-1254 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.1 U	0.2 U	0.21 U	0.2 U	0.2 U
Aroclor-1260 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.1 U	0.2 U	0.21 U	0.2 U	0.2 U
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	0.1 U	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	0.1 U	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	0.4 U	0.4 U	0.4 U	0.1 U	0.4 U	0.42 U	0.4 U	0.4 U
Organochlorine Pesticides									
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	0.2 U	0.2 U	0.2 U	NA	NA	0.21 U	0.2 U	0.2 U
Aroclor-1221	ug/L	0.2 U	0.2 U	0.2 U	NA	NA	0.21 U	0.2 U	0.2 U
Aroclor-1232	ug/L	0.4 U	0.4 U	0.4 U	NA	NA	0.42 U	0.4 U	0.4 U
Aroclor-1242	ug/L	0.2 U	0.2 U	0.2 U	NA	NA	0.21 U	0.2 U	0.2 U
Aroclor-1248	ug/L	0.21	0.2 U	0.2 U	NA	NA	0.41	0.2 U	0.28
Aroclor-1254	ug/L	0.2 U	0.2 U	0.2 U	NA	NA	0.21 U	0.2 U	0.2 U
Aroclor-1260	ug/L	0.2 U	0.2 U	0.2 U	NA	NA	0.21 U	0.2 U	0.2 U
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Organophosphate Pesticides									
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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Organophosphate Pesticides (Cont'd.)									
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides									
2,4,5-T	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans									
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area MW-111S4 46 - 51 07/14/95	Saginaw River Area MW-111S4 46 - 51 06/10/96	Saginaw River Area MW-111S4 46 - 51 03/07/97	Saginaw River Area MW-111S4 46 - 51 07/02/99	Saginaw River Area MW-111S4 46 - 51 05/23/00	Saginaw River Area MW-111WT 5.5 - 10.5 07/14/95	Saginaw River Area MW-111WT 5.5 - 10.5 06/12/96	Saginaw River Area MW-111WT 5.5 - 10.5 03/07/97
Dioxins/Furans (Cont'd.)									
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	Saginaw River Area MW-111WT 5.5 - 10.5 06/30/99	Saginaw River Area MW-111WT 5.5 - 10.5 05/19/00	Saginaw River Area MW-111WT 5.5 - 10.5 04/05/01	Saginaw River Area MW-111WT 5.5 - 10.5 06/02/04	Saginaw River Area MW-111WT 5.5 - 10.5 08/26/05	Saginaw River Area MW-111WT 5.5 - 10.5 04/02/08	Saginaw River Area MW-112WT 3.5 - 8.5 07/17/95	Saginaw River Area MW-112WT 3.5 - 8.5 06/12/96
Volatile Organics									
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U
1,2-Dichloroethene (total)	ug/L	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	NA	NA	NA	NA	NA	NA	50 U	50 U
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	NA	NA	NA	NA	NA	NA	50 U	50 U
3-Chloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	NA	NA	NA	NA	NA	NA	50 U	50 U
Acetone	ug/L	NA	NA	NA	NA	NA	NA	50 U	100 U
Acetonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	NA	NA	NA	NA	NA	NA	1.0 U	5.0 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U
Bromoform	ug/L	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U
Bromomethane	ug/L	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U
Carbon Disulfide	ug/L	NA	NA	NA	NA	NA	NA	50 U	50 U
Carbon Tetrachloride	ug/L	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U
Chlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U

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TABLE A-1
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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area MW-111WT 5.5 - 10.5 06/30/99	Saginaw River Area MW-111WT 5.5 - 10.5 05/19/00	Saginaw River Area MW-111WT 5.5 - 10.5 04/05/01	Saginaw River Area MW-111WT 5.5 - 10.5 06/02/04	Saginaw River Area MW-111WT 5.5 - 10.5 08/26/05	Saginaw River Area MW-111WT 5.5 - 10.5 04/02/08	Saginaw River Area MW-112WT 3.5 - 8.5 07/17/95	Saginaw River Area MW-112WT 3.5 - 8.5 06/12/96
Volatile Organics (Cont'd.)									
Chloroethane	ug/L	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U
Chloroform	ug/L	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U
Chloromethane	ug/L	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U
Cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	NA	NA	NA	NA	NA	NA	1.0 U	5.0 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U
Toluene	ug/L	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U
Total 1,3-Dichloropropenes	ug/L	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U
Total Xylenes	ug/L	NA	NA	NA	NA	NA	NA	3.0 U	3.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area MW-111WT 5.5 - 10.5 06/30/99	Saginaw River Area MW-111WT 5.5 - 10.5 05/19/00	Saginaw River Area MW-111WT 5.5 - 10.5 04/05/01	Saginaw River Area MW-111WT 5.5 - 10.5 06/02/04	Saginaw River Area MW-111WT 5.5 - 10.5 08/26/05	Saginaw River Area MW-111WT 5.5 - 10.5 04/02/08	Saginaw River Area MW-112WT 3.5 - 8.5 07/17/95	Saginaw River Area MW-112WT 3.5 - 8.5 06/12/96
Semivolatile Organics									
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	5.0 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	1.0 U	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	1.0 U	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	1.0 U	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	5.0 U
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	5.0 U	NA	NA	NA	NA	50 U	50 U
2,4,6-Trichlorophenol	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	5.0 U
2,4-Dichlorophenol	ug/L	NA	10 U	NA	NA	NA	NA	5.0 U	5.0 U
2,4-Dimethylphenol	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	5.0 U
2,4-Dinitrophenol	ug/L	NA	20 U	NA	NA	NA	NA	20 U	20 U
2,4-Dinitrotoluene	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	5.0 U
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	5.0 U
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	5.0 U
2-Chlorophenol	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	5.0 U
2-Methylnaphthalene	ug/L	NA	5.0 U	NA	NA	NA	NA	0.71 J	5.0 U
2-Methylphenol	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	5.0 U
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	20 U	NA	NA	NA	NA	20 U	20 U
2-Nitrophenol	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	5.0 U
2-Picoline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	20 U	NA	NA	NA	NA	20 U	20 U
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	20 U	NA	NA	NA	NA	20 U	20 U
4,6-Dinitro-2-methylphenol	ug/L	NA	20 U	NA	NA	NA	NA	20 U	20 U
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	5.0 U
4-Chloro-3-Methylphenol	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	5.0 U
4-Chloroaniline	ug/L	NA	10 U	NA	NA	NA	NA	20 U	20 U
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	5.0 U
4-Methylphenol	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	5.0 U

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area MW-111WT 5.5 - 10.5 06/30/99	Saginaw River Area MW-111WT 5.5 - 10.5 05/19/00	Saginaw River Area MW-111WT 5.5 - 10.5 04/05/01	Saginaw River Area MW-111WT 5.5 - 10.5 06/02/04	Saginaw River Area MW-111WT 5.5 - 10.5 08/26/05	Saginaw River Area MW-111WT 5.5 - 10.5 04/02/08	Saginaw River Area MW-112WT 3.5 - 8.5 07/17/95	Saginaw River Area MW-112WT 3.5 - 8.5 06/12/96
Semivolatile Organics (Cont'd.)									
4-Nitroaniline	ug/L	NA	20 U	NA	NA	NA	NA	20 UJ	20 U
4-Nitrophenol	ug/L	NA	20 U	NA	NA	NA	NA	20 UJ	20 U
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	5.0 U
Acenaphthylene	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	5.0 U
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	5.0 U
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	5.0 U
Benzo(a)pyrene	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	5.0 U
Benzo(b)fluoranthene	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	5.0 U
Benzo(g,h,i)perylene	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	5.0 U
Benzo(k)fluoranthene	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	5.0 U
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	5.0 U
bis(2-Chloroethyl)ether	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	5.0 U
bis(2-Ethylhexyl)phthalate	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	5.0 U
Butylbenzylphthalate	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	5.0 U
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	10 U	NA	NA	NA	NA	10 U	10 U
Chrysene	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	5.0 U
Diallate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	5.0 U
Dibenzofuran	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	5.0 U
Diethylphthalate	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	5.0 U
Dimethylphthalate	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	5.0 U
Di-n-Butylphthalate	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	5.0 U
Di-n-Octylphthalate	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	5.0 U
Diphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	5.0 U
Fluorene	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	5.0 U
Hexachlorobenzene	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	5.0 U
Hexachlorobutadiene	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	5.0 U
Hexachlorocyclopentadiene	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	5.0 U
Hexachloroethane	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	2.0 U
Hexachloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	5.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area MW-111WT 5.5 - 10.5 06/30/99	Saginaw River Area MW-111WT 5.5 - 10.5 05/19/00	Saginaw River Area MW-111WT 5.5 - 10.5 04/05/01	Saginaw River Area MW-111WT 5.5 - 10.5 06/02/04	Saginaw River Area MW-111WT 5.5 - 10.5 08/26/05	Saginaw River Area MW-111WT 5.5 - 10.5 04/02/08	Saginaw River Area MW-112WT 3.5 - 8.5 07/17/95	Saginaw River Area MW-112WT 3.5 - 8.5 06/12/96
Semivolatile Organics (Cont'd.)									
Isophorone	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	5.0 U
Isosafrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	5.0 U	NA	NA	NA	NA	1.0 J	5.0 U
Nitrobenzene	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	5.0 U
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	5.0 U
N-Nitrosodiphenylamine	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	5.0 U
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	1.0 U	NA	NA	NA	NA	25 U	25 U
Phenacetin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	5.0 U
Phenol	ug/L	NA	5.0 U	NA	NA	NA	NA	1.4 J	5.0 U
Pronamide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	5.0 U
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	5.0 U
PCBs									
Aroclor-1016	ug/L	0.10 U	0.20 U	0.20 U	NA	0.20 U	0.20 U [0.20 U]	NA	NA
Aroclor-1221	ug/L	0.10 U	0.20 U	0.20 U	NA	0.20 U	0.20 U [0.20 U]	NA	NA
Aroclor-1232	ug/L	0.10 U	0.40 U	0.40 U	NA	0.20 U	0.20 U [0.20 U]	NA	NA
Aroclor-1242	ug/L	0.10 U	0.20 U	0.20 U	NA	0.20 U	0.20 U [0.20 U]	NA	NA
Aroclor-1248	ug/L	0.11	0.20 U	0.20 U	NA	0.20 U	0.20 U [0.20 U]	NA	NA
Aroclor-1254	ug/L	0.10 U	0.20 U	0.20 U	NA	0.20 U	0.20 U [0.20 U]	NA	NA
Aroclor-1260	ug/L	0.10 U	0.20 U	0.20 U	NA	0.20 U	0.20 U [0.20 U]	NA	NA
Aroclor-1262	ug/L	0.10 U	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	0.10 U	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	0.11	0.40 U	0.40 U	NA	0.20 U	0.20 U [0.20 U]	NA	NA
PCBs-Dissolved									
Aroclor-1016 (Dissolved)	ug/L	0.1 U	0.2 U	NA	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1221 (Dissolved)	ug/L	0.1 U	0.2 U	NA	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1232 (Dissolved)	ug/L	0.1 U	0.4 U	NA	0.4 U [0.4 U]	0.2 U	0.2 U	0.4 U	0.4 U
Aroclor-1242 (Dissolved)	ug/L	0.1 U	0.2 U	NA	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	0.2 U

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SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area MW-111WT 5.5 - 10.5 06/30/99	Saginaw River Area MW-111WT 5.5 - 10.5 05/19/00	Saginaw River Area MW-111WT 5.5 - 10.5 04/05/01	Saginaw River Area MW-111WT 5.5 - 10.5 06/02/04	Saginaw River Area MW-111WT 5.5 - 10.5 08/26/05	Saginaw River Area MW-111WT 5.5 - 10.5 04/02/08	Saginaw River Area MW-112WT 3.5 - 8.5 07/17/95	Saginaw River Area MW-112WT 3.5 - 8.5 06/12/96
PCBs-Dissolved (Cont'd.)									
Aroclor-1248 (Dissolved)	ug/L	0.1 U	0.2 U	NA	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1254 (Dissolved)	ug/L	0.1 U	0.2 U	NA	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1260 (Dissolved)	ug/L	0.1 U	0.2 U	NA	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1262 (Dissolved)	ug/L	0.1 U	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	0.1 U	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	0.1 U	0.4 U	NA	0.4 U [0.4 U]	0.2 U	0.2 U	0.4 U	0.4 U
Organochlorine Pesticides									
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	1 U	0.2 U
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	1 U	0.2 U
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	2 U	0.4 U
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	1 U	0.2 U
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	5.3	0.29
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	1 U	0.2 U
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	1 U	0.2 U
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Organophosphate Pesticides									
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

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Organophosphate Pesticides (Cont'd.)									
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides									
2,4,5-T	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans									
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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Dioxins/Furans (Cont'd.)									
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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Volatile Organics									
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Chloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
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ORGANIC COMPOUNDS

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SAGINAW, MICHIGAN

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Volatile Organics (Cont'd.)									
Chloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total 1,3-Dichloropropenes	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Xylenes	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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Semivolatile Organics									
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Picoline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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Semivolatile Organics (Cont'd.)									
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Diallate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Diphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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Semivolatile Organics (Cont'd.)									
Isophorone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isosafrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Phenacetin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pronamide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
PCBs									
Aroclor-1016	ug/L	NA	NA	0.10 U	0.20 U [0.20 U]	0.20 U	NA	0.20 U	0.20 U
Aroclor-1221	ug/L	NA	NA	0.10 U	0.20 U [0.20 U]	0.20 U	NA	0.20 U	0.20 U
Aroclor-1232	ug/L	NA	NA	0.10 U	0.40 U [0.40 U]	0.40 U	NA	0.20 U	0.20 U
Aroclor-1242	ug/L	NA	NA	0.10 U	0.20 U [0.20 U]	0.20 J	NA	0.20 U	0.20 U
Aroclor-1248	ug/L	NA	NA	0.58	0.20 U [0.20 U]	0.20 U	NA	0.20 U	0.16 J
Aroclor-1254	ug/L	NA	NA	0.10 U	0.20 U [0.20 U]	0.20 U	NA	0.20 U	0.20 U
Aroclor-1260	ug/L	NA	NA	0.10 U	0.20 U [0.20 U]	0.20 U	NA	0.20 U	0.20 U
Aroclor-1262	ug/L	NA	NA	0.10 U	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	0.10 U	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	0.58	0.40 U [0.40 U]	0.20 J	NA	0.20 U	0.16 J
PCBs-Dissolved									
Aroclor-1016 (Dissolved)	ug/L	0.2 U	0.2 U	0.1 U	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1221 (Dissolved)	ug/L	0.2 U	0.2 U	0.1 U	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1232 (Dissolved)	ug/L	0.4 U	0.4 U	0.1 U	0.4 U [0.4 U]	0.4 U	0.4 U	0.2 U	0.2 U
Aroclor-1242 (Dissolved)	ug/L	0.2 U	0.2 U	0.1 U	0.2 U [0.2 U]	0.22	0.2 U	0.2 U	0.2 U

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PCBs-Dissolved (Cont'd.)									
Aroclor-1248 (Dissolved)	ug/L	0.2 U	0.2 U	0.17	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1254 (Dissolved)	ug/L	0.2 U	0.2 U	0.1 U	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1260 (Dissolved)	ug/L	0.2 U	0.2 U	0.1 U	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1262 (Dissolved)	ug/L	NA	NA	0.1 U	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	0.1 U	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	0.4 U	0.4 U	0.17	0.4 U [0.4 U]	0.22	0.4 U	0.2 U	0.2 U
Organochlorine Pesticides									
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	0.28	0.2 U	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	0.2 U	0.2 U	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	0.4 U	0.4 U	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	0.2 U	0.2 U	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	0.2 U	0.2 U	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	0.2 U	0.2 U	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	0.2 U	0.2 U	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Organophosphate Pesticides									
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area MW-112WT 3.5 - 8.5 09/27/96	Saginaw River Area MW-112WT 3.5 - 8.5 03/05/97	Saginaw River Area MW-112WT 3.5 - 8.5 06/30/99	Saginaw River Area MW-112WT 3.5 - 8.5 05/20/00	Saginaw River Area MW-112WT 3.5 - 8.5 04/05/01	Saginaw River Area MW-112WT 3.5 - 8.5 06/03/04	Saginaw River Area MW-112WT 3.5 - 8.5 08/25/05	Saginaw River Area MW-112WT 3.5 - 8.5 11/27/07
Organophosphate Pesticides (Cont'd.)									
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides									
2,4,5-T	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans									
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area MW-112WT 3.5 - 8.5 09/27/96	Saginaw River Area MW-112WT 3.5 - 8.5 03/05/97	Saginaw River Area MW-112WT 3.5 - 8.5 06/30/99	Saginaw River Area MW-112WT 3.5 - 8.5 05/20/00	Saginaw River Area MW-112WT 3.5 - 8.5 04/05/01	Saginaw River Area MW-112WT 3.5 - 8.5 06/03/04	Saginaw River Area MW-112WT 3.5 - 8.5 08/25/05	Saginaw River Area MW-112WT 3.5 - 8.5 11/27/07
Dioxins/Furans (Cont'd.)									
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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ORGANIC COMPOUNDS

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area MW-113WT 3.5 - 8.5 07/17/95	Saginaw River Area MW-113WT 3.5 - 8.5 06/13/96	Saginaw River Area MW-113WT 3.5 - 8.5 03/06/97	Saginaw River Area MW-114S1 10.7 - 15.7 07/17/95	Saginaw River Area MW-114S1 10.7 - 15.7 06/07/96	Southern Drainage Channels TW-216S1 05/10/95	Southern Drainage Channels TW-216S2 05/11/95
Volatile Organics								
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U [1.0 U]
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U [1.0 U]
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U [1.0 U]
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U [1.0 U]
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U [1.0 U]
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U [1.0 U]
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U [1.0 U]
1,2-Dichloroethene (total)	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U [1.0 U]
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U [1.0 U]
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U [1.0 U]
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U [1.0 U]
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	50 U	50 U	NA	50 U	50 U	NA	50 UJ [50 U]
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	50 U	50 U	NA	R	50 U	NA	R [50 U]
3-Chloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U	50 U	NA	50 U	50 U	NA	50 UJ [50 U]
Acetone	ug/L	50 U	100 U	NA	50 UJ	100 U	NA	50 UJ [50 U]
Acetonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	1.0 U	5.0 U	NA	1.0 U	5.0 U	NA	1.0 U [1.0 U]
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U [1.0 U]
Bromoform	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U [1.0 U]
Bromomethane	ug/L	1.0 U	1.0 U	NA	1.0 UJ	1.0 U	NA	1.0 U [1.0 U]
Carbon Disulfide	ug/L	50 U	50 U	NA	50 U	50 U	NA	50 U [50 U]
Carbon Tetrachloride	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U [1.0 U]
Chlorobenzene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U [1.0 U]

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area MW-113WT 3.5 - 8.5 07/17/95	Saginaw River Area MW-113WT 3.5 - 8.5 06/13/96	Saginaw River Area MW-113WT 3.5 - 8.5 03/06/97	Saginaw River Area MW-114S1 10.7 - 15.7 07/17/95	Saginaw River Area MW-114S1 10.7 - 15.7 06/07/96	Southern Drainage Channels TW-216S1 05/10/95	Southern Drainage Channels TW-216S2 05/11/95
Volatile Organics (Cont'd.)								
Chloroethane	ug/L	1.0 U	1.0 U	NA	1.0 UJ	1.0 U	NA	1.0 U [1.0 U]
Chloroform	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U [1.0 U]
Chloromethane	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U [1.0 U]
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U [1.0 U]
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U [1.0 U]
Cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U [1.0 U]
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U [1.0 U]
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	1.0 U	5.0 U	NA	1.0 U	5.0 U	NA	1.0 U [1.0 UJ]
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U [1.0 U]
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U [1.0 U]
Toluene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U [1.0 U]
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U [1.0 U]
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U [1.0 U]
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U [1.0 U]
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U [1.0 U]
Total 1,3-Dichloropropenes	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U [1.0 U]
Total Xylenes	ug/L	3.0 U	3.0 U	NA	3.0 U	3.0 U	NA	3.0 U [3.0 U]

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
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Semivolatile Organics								
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	NA	5.0 U	5.0 U	NA	5.0 U [5.0 U]
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	5.0 U	5.0 U	NA	5.0 U	5.0 U	NA	5.0 U [5.0 U]
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	50 U	50 U	NA	50 U	50 U	NA	NA
2,4,6-Trichlorophenol	ug/L	5.0 U	5.0 U	NA	5.0 U	5.0 U	NA	NA
2,4-Dichlorophenol	ug/L	5.0 U	5.0 U	NA	5.0 U	5.0 U	NA	NA
2,4-Dimethylphenol	ug/L	5.0 U	5.0 U	NA	5.0 U	5.0 U	NA	NA
2,4-Dinitrophenol	ug/L	20 U	20 U	NA	20 UJ	20 U	NA	NA
2,4-Dinitrotoluene	ug/L	5.0 U	5.0 U	NA	5.0 U	5.0 U	NA	NA
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	5.0 U	5.0 U	NA	5.0 U	5.0 U	NA	NA
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	5.0 U	5.0 U	NA	5.0 U	5.0 U	NA	NA
2-Chlorophenol	ug/L	5.0 U	5.0 U	NA	5.0 U	5.0 U	NA	NA
2-Methylnaphthalene	ug/L	5.0 U	5.0 U	NA	5.0 U	5.0 U	NA	NA
2-Methylphenol	ug/L	5.0 U	5.0 U	NA	5.0 U	5.0 U	NA	NA
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	20 U	20 U	NA	20 U	20 U	NA	NA
2-Nitrophenol	ug/L	5.0 U	5.0 U	NA	5.0 U	NA	NA	NA
2-Picoline	ug/L	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	20 U	20 U	NA	20 U	NA	NA	NA
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	20 U	20 U	NA	20 U	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	20 U	20 U	NA	20 U	NA	NA	NA
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	5.0 U	5.0 U	NA	5.0 U	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	5.0 U	5.0 U	NA	5.0 U	NA	NA	NA
4-Chloroaniline	ug/L	20 U	20 U	NA	20 U	NA	NA	NA
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	5.0 U	5.0 U	NA	5.0 U	NA	NA	NA
4-Methylphenol	ug/L	5.0 U	5.0 U	NA	5.0 U	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	Saginaw River Area MW-113WT 3.5 - 8.5 07/17/95	Saginaw River Area MW-113WT 3.5 - 8.5 06/13/96	Saginaw River Area MW-113WT 3.5 - 8.5 03/06/97	Saginaw River Area MW-114S1 10.7 - 15.7 07/17/95	Saginaw River Area MW-114S1 10.7 - 15.7 06/07/96	Southern Drainage Channels TW-216S1 05/10/95	Southern Drainage Channels TW-216S2 05/11/95
Semivolatile Organics (Cont'd.)								
4-Nitroaniline	ug/L	20 U	20 U	NA	20 UJ	NA	NA	NA
4-Nitrophenol	ug/L	20 UJ	20 U	NA	20 UJ	NA	NA	NA
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	5.0 U	5.0 U	NA	5.0 U	NA	NA	NA
Acenaphthylene	ug/L	5.0 U	5.0 U	NA	5.0 U	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	5.0 U	5.0 U	NA	5.0 U	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	5.0 U	5.0 U	NA	5.0 U	NA	NA	NA
Benzo(a)pyrene	ug/L	5.0 U	5.0 U	NA	5.0 U	NA	NA	NA
Benzo(b)fluoranthene	ug/L	5.0 U	5.0 U	NA	5.0 U	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	5.0 U	5.0 U	NA	5.0 U	NA	NA	NA
Benzo(k)fluoranthene	ug/L	5.0 U	5.0 U	NA	5.0 U	NA	NA	NA
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	5.0 U	5.0 U	NA	5.0 U	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	5.0 U	5.0 U	NA	5.0 U	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	5.0 U	9.0	NA	5.0 U	NA	NA	NA
Butylbenzylphthalate	ug/L	5.0 U	5.0 U	NA	5.0 U	NA	5.0 U	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	10 U	10 U	NA	10 U	NA	5.0 U	NA
Chrysene	ug/L	5.0 U	5.0 U	NA	5.0 U	NA	5.0 U	NA
Diallate	ug/L	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	5.0 U	5.0 U	NA	5.0 U	NA	5.0 U	NA
Dibenzofuran	ug/L	5.0 U	5.0 U	NA	5.0 U	NA	5.0 U	NA
Diethylphthalate	ug/L	5.0 U	5.0 U	NA	5.0 U	NA	5.0 U	NA
Dimethylphthalate	ug/L	5.0 U	5.0 U	NA	5.0 U	NA	5.0 U	NA
Di-n-Butylphthalate	ug/L	5.0 U	5.0 U	NA	5.0 U	NA	5.0 U	NA
Di-n-Octylphthalate	ug/L	5.0 U	5.0 U	NA	5.0 U	NA	5.0 U	NA
Diphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	5.0 U	5.0 U	NA	5.0 U	NA	5.0 U	NA
Fluorene	ug/L	5.0 U	5.0 U	NA	5.0 U	NA	5.0 U	NA
Hexachlorobenzene	ug/L	5.0 U	5.0 U	NA	5.0 U	NA	5.0 U	NA
Hexachlorobutadiene	ug/L	5.0 U	5.0 U	NA	5.0 U	NA	5.0 U	NA
Hexachlorocyclopentadiene	ug/L	5.0 U	5.0 U	NA	5.0 U	NA	5.0 U	NA
Hexachloroethane	ug/L	5.0 U	2.0 U	NA	5.0 U	NA	5.0 U	NA
Hexachloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	5.0 U	5.0 U	NA	5.0 U	NA	5.0 U	NA

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Semivolatile Organics (Cont'd.)								
Isophorone	ug/L	5.0 U	5.0 U	NA	5.0 U	NA	5.0 U	NA
Isosafrole	ug/L	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	5.0 U	5.0 U	NA	5.0 U	NA	5.0 U	NA
Nitrobenzene	ug/L	5.0 U	5.0 U	NA	5.0 U	NA	5.0 U	NA
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	5.0 U	5.0 U	NA	5.0 U	NA	5.0 UJ	NA
N-Nitrosodiphenylamine	ug/L	5.0 U	5.0 U	NA	5.0 U	NA	5.0 U	NA
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	25 U	25 U	NA	25 U	NA	20 U	NA
Phenacetin	ug/L	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	5.0 U	5.0 U	NA	5.0 U	NA	5.0 U	NA
Phenol	ug/L	5.0 U	5.0 U	NA	5.0 U	NA	1.6 J	NA
Pronamide	ug/L	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	5.0 U	5.0 U	NA	5.0 U	NA	5.0 U	NA
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	5.0 U	5.0 U	NA	5.0 U	NA	5.0 U	NA
PCBs								
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA
PCBs-Dissolved								
Aroclor-1016 (Dissolved)	ug/L	0.22 U	0.2 U	0.2 U	0.21 U	NA	0.2 U	NA
Aroclor-1221 (Dissolved)	ug/L	0.22 U	0.2 U	0.2 U	0.21 U	NA	0.2 U	NA
Aroclor-1232 (Dissolved)	ug/L	0.44 U	0.4 U	0.4 U	0.42 U	NA	0.4 U	NA
Aroclor-1242 (Dissolved)	ug/L	0.22 U	0.2 U	0.2 U	0.21 U	NA	0.2 U	NA

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PCBs-Dissolved (Cont'd.)								
Aroclor-1248 (Dissolved)	ug/L	0.22 U	0.2 U	0.2 U	0.21 U	NA	0.2 U	NA
Aroclor-1254 (Dissolved)	ug/L	0.22 U	0.2 U	0.2 U	0.21 U	NA	0.2 U	NA
Aroclor-1260 (Dissolved)	ug/L	0.22 U	0.2 U	0.2 U	0.21 U	NA	0.2 U	NA
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	0.44 U	0.4 U	0.4 U	0.42 U	NA	0.4 U	NA
Organochlorine Pesticides								
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	0.22 U	0.2 U	0.2 U	0.2 U	NA	0.2 U	NA
Aroclor-1221	ug/L	0.22 U	0.2 U	0.2 U	0.2 U	NA	0.2 U	NA
Aroclor-1232	ug/L	0.45 U	0.4 U	0.4 U	0.4 U	NA	0.4 U	NA
Aroclor-1242	ug/L	0.22 U	0.2 U	0.2 U	0.2 U	NA	0.2 U	NA
Aroclor-1248	ug/L	0.22 U	0.2 U	0.2 U	0.2 U	NA	0.2 U	NA
Aroclor-1254	ug/L	0.22 U	0.2 U	0.2 U	0.2 U	NA	0.2 U	NA
Aroclor-1260	ug/L	0.22 U	0.2 U	0.2 U	0.2 U	NA	0.2 U	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA
Organophosphate Pesticides								
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA

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Organophosphate Pesticides (Cont'd.)								
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA
Herbicides								
2,4,5-T	ug/L	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans								
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA

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Dioxins/Furans (Cont'd.)								
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area MW-114S1 10.7 - 15.7 06/07/96	Saginaw River Area MW-114S2 22.5 - 27.5 07/17/95	Saginaw River Area MW-114S2 22.5 - 27.5 06/07/96	Saginaw River Area MW-114S3 35.5 - 40.5 07/17/95	Saginaw River Area MW-114S3 35.5 - 40.5 06/07/96	Saginaw River Area MW-114S4 47.8 - 52.8 07/17/95	Saginaw River Area MW-114S4 47.8 - 52.8 06/07/96	Saginaw River Area MW-114WT 3.5 - 8.5 06/08/96
Volatile Organics									
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethene (total)	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	NA	50 U	50 U	50 U	50 U	50 U	50 U	50 U
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	NA	R	50 U	R	50 U	R	50 U	50 U
3-Chloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	NA	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Acetone	ug/L	NA	50 UJ	100 U	50 UJ	100 U	50 UJ	100 U	100 U
Acetonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	NA	1.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	ug/L	NA	1.0 UJ	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 U	1.0 U
Carbon Disulfide	ug/L	NA	50 U	50 U	50 U	50 U	50 U	0.64 J	50 U
Carbon Tetrachloride	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	Saginaw River Area MW-114S1 10.7 - 15.7 06/07/96	Saginaw River Area MW-114S2 22.5 - 27.5 07/17/95	Saginaw River Area MW-114S2 22.5 - 27.5 06/07/96	Saginaw River Area MW-114S3 35.5 - 40.5 07/17/95	Saginaw River Area MW-114S3 35.5 - 40.5 06/07/96	Saginaw River Area MW-114S4 47.8 - 52.8 07/17/95	Saginaw River Area MW-114S4 47.8 - 52.8 06/07/96	Saginaw River Area MW-114WT 3.5 - 8.5 06/08/96
Volatile Organics (Cont'd.)									
Chloroethane	ug/L	NA	1.0 UJ	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 U	1.0 U
Chloroform	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	NA	1.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total 1,3-Dichloropropenes	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total Xylenes	ug/L	NA	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U

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Semivolatile Organics									
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	50 U	50 U	50 U	50 U	50 U	50 U	50 U
2,4,6-Trichlorophenol	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dichlorophenol	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dimethylphenol	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dinitrophenol	ug/L	NA	20 U	20 U	20 U	20 U	20 U	20 U	20 UJ
2,4-Dinitrotoluene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Chlorophenol	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Methylnaphthalene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Methylphenol	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	20 U	20 U	20 U	20 U	20 U	20 U	20 U
2-Nitrophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Picoline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
4,6-Dinitro-2-methylphenol	ug/L	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloro-3-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloroaniline	ug/L	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

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Semivolatile Organics (Cont'd.)									
4-Nitroaniline	ug/L	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
4-Nitrophenol	ug/L	20 U	20 UJ	20 U	20 UJ	20 U	20 UJ	20 U	20 UJ
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acenaphthylene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(a)pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(b)fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(g,h,i)perylene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(k)fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Chloroethyl)ether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Ethylhexyl)phthalate	ug/L	7.6 U	0.63 J	5.0 U	1.8 J	5.0 U	5.0 U	6.8 U	5.0 UJ
Butylbenzylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Diallate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibenzofuran	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Diethylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dimethylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Di-n-Butylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Di-n-Octylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Diphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Fluorene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobutadiene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorocyclopentadiene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachloroethane	ug/L	2.0 U	5.0 U	2.0 U	5.0 U	2.0 U	5.0 U	2.0 U	2.0 U
Hexachloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area MW-114S1 10.7 - 15.7 06/07/96	Saginaw River Area MW-114S2 22.5 - 27.5 07/17/95	Saginaw River Area MW-114S2 22.5 - 27.5 06/07/96	Saginaw River Area MW-114S3 35.5 - 40.5 07/17/95	Saginaw River Area MW-114S3 35.5 - 40.5 06/07/96	Saginaw River Area MW-114S4 47.8 - 52.8 07/17/95	Saginaw River Area MW-114S4 47.8 - 52.8 06/07/96	Saginaw River Area MW-114WT 3.5 - 8.5 06/08/96
Semivolatile Organics (Cont'd.)									
Isophorone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Isosafrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Nitrobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosodiphenylamine	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Phenacetin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Phenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	44	27	5.0 U
Pronamide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
PCBs									
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
PCBs-Dissolved									
Aroclor-1016 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1221 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1232 (Dissolved)	ug/L	0.4 U	0.41 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Aroclor-1242 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area MW-114S1 10.7 - 15.7 06/07/96	Saginaw River Area MW-114S2 22.5 - 27.5 07/17/95	Saginaw River Area MW-114S2 22.5 - 27.5 06/07/96	Saginaw River Area MW-114S3 35.5 - 40.5 07/17/95	Saginaw River Area MW-114S3 35.5 - 40.5 06/07/96	Saginaw River Area MW-114S4 47.8 - 52.8 07/17/95	Saginaw River Area MW-114S4 47.8 - 52.8 06/07/96	Saginaw River Area MW-114WT 3.5 - 8.5 06/08/96
PCBs-Dissolved (Cont'd.)									
Aroclor-1248 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1254 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1260 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	0.4 U	0.41 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Organochlorine Pesticides									
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	0.2 U	0.21 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1221	ug/L	0.2 U	0.21 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1232	ug/L	0.4 U	0.41 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Aroclor-1242	ug/L	0.2 U	0.21 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1248	ug/L	0.2 U	0.21 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1254	ug/L	0.2 U	0.21 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1260	ug/L	0.2 U	0.21 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Organophosphate Pesticides									
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area MW-114S1 10.7 - 15.7 06/07/96	Saginaw River Area MW-114S2 22.5 - 27.5 07/17/95	Saginaw River Area MW-114S2 22.5 - 27.5 06/07/96	Saginaw River Area MW-114S3 35.5 - 40.5 07/17/95	Saginaw River Area MW-114S3 35.5 - 40.5 06/07/96	Saginaw River Area MW-114S4 47.8 - 52.8 07/17/95	Saginaw River Area MW-114S4 47.8 - 52.8 06/07/96	Saginaw River Area MW-114WT 3.5 - 8.5 06/08/96
Organophosphate Pesticides (Cont'd.)									
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides									
2,4,5-T	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans									
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

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Dioxins/Furans (Cont'd.)									
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area MW-114WT 3.5 - 8.5 03/06/97	Saginaw River Area MW-114WT 3.5 - 8.5 12/11/97	Saginaw River Area MW-114WT 3.5 - 8.5 05/22/00	Saginaw River Area MW-114WT 3.5 - 8.5 04/05/01	Saginaw River Area MW-114WT 3.5 - 8.5 06/03/04	Saginaw River Area MW-114WT 3.5 - 8.5 08/24/05	Saginaw River Area MW-149WT 7 - 17 06/12/96	Saginaw River Area MW-149WT 7 - 17 03/10/97
Volatile Organics									
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	NA	1.0 U	NA	NA	NA	NA	1.0 U	NA
1,1,2,2-Tetrachloroethane	ug/L	NA	1.0 U	NA	NA	NA	NA	1.0 U	NA
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	NA	1.0 U	NA	NA	NA	NA	1.0 U	NA
1,1-Dichloroethane	ug/L	NA	1.0 U	NA	NA	NA	NA	1.0 U	NA
1,1-Dichloroethene	ug/L	NA	1.0 U	NA	NA	NA	NA	1.0 U	NA
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	1.0 U	NA	NA	NA	NA	1.0 U	NA
1,2-Dichloroethane	ug/L	NA	1.0 U	NA	NA	NA	NA	1.0 U	NA
1,2-Dichloroethene (total)	ug/L	NA	1.0 U	NA	NA	NA	NA	1.0 U	NA
1,2-Dichloropropane	ug/L	NA	1.0 U	NA	NA	NA	NA	1.0 U	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	1.0 U	NA	NA	NA	NA	1.0 U	NA
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	1.0 U	NA	NA	NA	NA	1.0 U	NA
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	NA	50 U	NA	NA	NA	NA	50 U	NA
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	NA	50 U	NA	NA	NA	NA	50 U	NA
3-Chloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	NA	50 U	NA	NA	NA	NA	50 U	NA
Acetone	ug/L	NA	100 UJ	NA	NA	NA	NA	100 U	NA
Acetonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	NA	1.0 U	NA	NA	NA	NA	1.0 U	NA
Bromoform	ug/L	NA	1.0 U	NA	NA	NA	NA	1.0 U	NA
Bromomethane	ug/L	NA	1.0 U	NA	NA	NA	NA	1.0 U	NA
Carbon Disulfide	ug/L	NA	50 U	NA	NA	NA	NA	50 U	NA
Carbon Tetrachloride	ug/L	NA	1.0 U	NA	NA	NA	NA	1.0 U	NA
Chlorobenzene	ug/L	NA	1.0 U	NA	NA	NA	NA	1.0 U	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area MW-114WT 3.5 - 8.5 03/06/97	Saginaw River Area MW-114WT 3.5 - 8.5 12/11/97	Saginaw River Area MW-114WT 3.5 - 8.5 05/22/00	Saginaw River Area MW-114WT 3.5 - 8.5 04/05/01	Saginaw River Area MW-114WT 3.5 - 8.5 06/03/04	Saginaw River Area MW-114WT 3.5 - 8.5 08/24/05	Saginaw River Area MW-149WT 7 - 17 06/12/96	Saginaw River Area MW-149WT 7 - 17 03/10/97
Volatile Organics (Cont'd.)									
Chloroethane	ug/L	NA	1.0 U	NA	NA	NA	NA	1.0 U	NA
Chloroform	ug/L	NA	1.0 U	NA	NA	NA	NA	1.0 U	NA
Chloromethane	ug/L	NA	1.0 U	NA	NA	NA	NA	1.0 U	NA
cis-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	1.0 U	NA
cis-1,3-Dichloropropene	ug/L	NA	1.0 U	NA	NA	NA	NA	1.0 U	NA
Cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	NA	1.0 U	NA	NA	NA	NA	1.0 U	NA
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	NA	1.0 U	NA	NA	NA	NA	1.0 U	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	NA	1.0 U	NA	NA	NA	NA	1.0 U	NA
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	NA	1.0 U	NA	NA	NA	NA	1.0 U	NA
Toluene	ug/L	NA	1.0 U	NA	NA	NA	NA	1.0 U	NA
trans-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	1.0 U	NA
trans-1,3-Dichloropropene	ug/L	NA	1.0 U	NA	NA	NA	NA	1.0 U	NA
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	NA	1.0 U	NA	NA	NA	NA	1.0 U	NA
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	NA	1.0 U	NA	NA	NA	NA	1.0 U	NA
Total 1,3-Dichloropropenes	ug/L	NA	1.0 U	NA	NA	NA	NA	1.0 U	NA
Total Xylenes	ug/L	NA	3.0 U	NA	NA	NA	NA	3.0 U	NA

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Semivolatile Organics									
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	50 U	NA	NA	NA	NA	50 U	NA
2,4,6-Trichlorophenol	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA
2,4-Dichlorophenol	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA
2,4-Dimethylphenol	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA
2,4-Dinitrophenol	ug/L	NA	20 U	NA	NA	NA	NA	20 U	NA
2,4-Dinitrotoluene	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA
2-Chlorophenol	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA
2-Methylnaphthalene	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA
2-Methylphenol	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	20 U	NA	NA	NA	NA	20 U	NA
2-Nitrophenol	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA
2-Picoline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	20 U	NA	NA	NA	NA	20 U	NA
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	20 U	NA	NA	NA	NA	20 U	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	20 U	NA	NA	NA	NA	20 U	NA
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA
4-Chloro-3-Methylphenol	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA
4-Chloroaniline	ug/L	NA	20 U	NA	NA	NA	NA	20 U	NA
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA
4-Methylphenol	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA

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Semivolatile Organics (Cont'd.)									
4-Nitroaniline	ug/L	NA	20 U	NA	NA	NA	NA	20 U	NA
4-Nitrophenol	ug/L	NA	20 U	NA	NA	NA	NA	20 U	NA
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA
Acenaphthylene	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA
Benzo(a)pyrene	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA
Benzo(b)fluoranthene	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA
Benzo(g,h,i)perylene	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA
Benzo(k)fluoranthene	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA
bis(2-Chloroethyl)ether	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA
Butylbenzylphthalate	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	5.0 U	NA	NA	NA	NA	10 U	NA
Chrysene	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA
Diallate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA
Dibenzofuran	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA
Diethylphthalate	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA
Dimethylphthalate	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA
Di-n-Butylphthalate	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA
Di-n-Octylphthalate	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA
Diphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA
Fluorene	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA
Hexachlorobenzene	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA
Hexachlorobutadiene	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA
Hexachlorocyclopentadiene	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA
Hexachloroethane	ug/L	NA	5.0 U	NA	NA	NA	NA	2.0 U	NA
Hexachloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA

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Semivolatile Organics (Cont'd.)									
Isophorone	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA
Isosafrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA
Nitrobenzene	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA
N-Nitrosodiphenylamine	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	20 U	NA	NA	NA	NA	25 U	NA
Phenacetin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA
Phenol	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA
Pronamide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA
PCBs									
Aroclor-1016	ug/L	NA	NA	0.20 U	0.20 U	NA	0.20 U	NA	NA
Aroclor-1221	ug/L	NA	NA	0.20 U	0.20 U	NA	0.20 U	NA	NA
Aroclor-1232	ug/L	NA	NA	0.40 U	0.40 U	NA	0.20 U	NA	NA
Aroclor-1242	ug/L	NA	NA	0.20 U	0.20 U	NA	0.20 U	NA	NA
Aroclor-1248	ug/L	NA	NA	0.20 U	0.20 U	NA	0.20 U	NA	NA
Aroclor-1254	ug/L	NA	NA	0.20 U	0.20 U	NA	0.20 U	NA	NA
Aroclor-1260	ug/L	NA	NA	0.20 U	0.20 U	NA	0.20 U	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	0.40 U	0.40 U	NA	0.20 U	NA	NA
PCBs-Dissolved									
Aroclor-1016 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1221 (Dissolved)	ug/L	0.2 U	0.2 UJ	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1232 (Dissolved)	ug/L	0.4 U	0.4 U	0.4 U	NA	0.4 U	0.2 U	0.4 U	0.4 U
Aroclor-1242 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area MW-114WT 3.5 - 8.5 03/06/97	Saginaw River Area MW-114WT 3.5 - 8.5 12/11/97	Saginaw River Area MW-114WT 3.5 - 8.5 05/22/00	Saginaw River Area MW-114WT 3.5 - 8.5 04/05/01	Saginaw River Area MW-114WT 3.5 - 8.5 06/03/04	Saginaw River Area MW-114WT 3.5 - 8.5 08/24/05	Saginaw River Area MW-149WT 7 - 17 06/12/96	Saginaw River Area MW-149WT 7 - 17 03/10/97
PCBs-Dissolved (Cont'd.)									
Aroclor-1248 (Dissolved)	ug/L	0.2 U	0.2 UJ	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1254 (Dissolved)	ug/L	0.2 U	0.2 UJ	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1260 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	0.4 U	0.4 U	0.4 U	NA	0.4 U	0.2 U	0.4 U	0.4 U
Organochlorine Pesticides									
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	0.2 U	0.2 U	NA	NA	NA	NA	0.2 U	0.2 U
Aroclor-1221	ug/L	0.2 U	0.2 UJ	NA	NA	NA	NA	0.2 U	0.2 U
Aroclor-1232	ug/L	0.4 U	0.4 U	NA	NA	NA	NA	0.4 U	0.4 U
Aroclor-1242	ug/L	0.2 U	0.2 U	NA	NA	NA	NA	0.2 U	0.2 U
Aroclor-1248	ug/L	0.2 U	0.2 UJ	NA	NA	NA	NA	0.2 U	0.2 U
Aroclor-1254	ug/L	0.2 U	0.2 UJ	NA	NA	NA	NA	0.2 U	0.2 U
Aroclor-1260	ug/L	0.41	0.2 U	NA	NA	NA	NA	0.2 U	0.2 U
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Organophosphate Pesticides									
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

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Organophosphate Pesticides (Cont'd.)									
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides									
2,4,5-T	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans									
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

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Dioxins/Furans (Cont'd.)									
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area MW-183WT 6 - 16 08/17/00	Saginaw River Area TW-210S1 02/15/95	Saginaw River Area TW-210S2 02/15/95	Saginaw River Area TW-210WT 02/14/95	Saginaw River Area TW-211S1 02/15/95	Saginaw River Area TW-211S2 02/16/95	Saginaw River Area TW-211WT 02/16/95	Saginaw River Area TW-212S1 02/15/95
Volatile Organics									
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
1,2-Dichloroethene (total)	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	NA	50 U	50 UJ	50 U	50 UJ [50 UJ]	50 UJ	4.4 J	50 UJ
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	NA	50 U	50 UJ	50 U	50 UJ [50 UJ]	50 UJ	50 UJ	50 UJ
3-Chloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	NA	50 U	50 U	50 U	50 U [50 U]	50 U	50 U	50 U
Acetone	ug/L	NA	50 U	50 UJ	50 U	50 UJ [50 UJ]	50 UJ	13 JB	50 UJ
Acetonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Bromomethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Carbon Disulfide	ug/L	NA	50 U	50 U	50 U	50 U [50 U]	1.8 J	50 U	50 U
Carbon Tetrachloride	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U

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Volatile Organics (Cont'd.)									
Chloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Chloroform	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Chloromethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Toluene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Total 1,3-Dichloropropenes	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Total Xylenes	ug/L	NA	3.0 U	3.0 U	3.0 U	3.0 U [3.0 U]	3.0 U	3.0 U	3.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area MW-183WT 6 - 16 08/17/00	Saginaw River Area TW-210S1 02/15/95	Saginaw River Area TW-210S2 02/15/95	Saginaw River Area TW-210WT 02/14/95	Saginaw River Area TW-211S1 02/15/95	Saginaw River Area TW-211S2 02/16/95	Saginaw River Area TW-211WT 02/16/95	Saginaw River Area TW-212S1 02/15/95
Semivolatile Organics									
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	50 U	50 U	50 U	50 U [50 U]	50 U	50 U	50 U
2,4,6-Trichlorophenol	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
2,4-Dichlorophenol	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
2,4-Dimethylphenol	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
2,4-Dinitrophenol	ug/L	NA	20 U	20 U	20 U	20 U [20 U]	20 U	20 U	20 U
2,4-Dinitrotoluene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
2-Chlorophenol	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
2-Methylnaphthalene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	2.0 J	5.0 U	5.0 U
2-Methylphenol	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	20 U	20 U	20 U	20 U [20 U]	20 U	20 U	20 U
2-Nitrophenol	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
2-Picoline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	20 U	20 U	20 U	20 U [20 U]	20 U	20 U	20 U
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	20 U	20 U	20 U	20 U [20 U]	20 U	20 U	20 U
4,6-Dinitro-2-methylphenol	ug/L	NA	20 U	20 U	20 U	20 U [20 U]	20 U	20 U	20 U
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
4-Chloro-3-Methylphenol	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
4-Chloroaniline	ug/L	NA	20 U	20 U	20 U	20 U [20 U]	20 U	20 U	20 U
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
4-Methylphenol	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area MW-183WT 6 - 16 08/17/00	Saginaw River Area TW-210S1 02/15/95	Saginaw River Area TW-210S2 02/15/95	Saginaw River Area TW-210WT 02/14/95	Saginaw River Area TW-211S1 02/15/95	Saginaw River Area TW-211S2 02/16/95	Saginaw River Area TW-211WT 02/16/95	Saginaw River Area TW-212S1 02/15/95
Semivolatile Organics (Cont'd.)									
4-Nitroaniline	ug/L	NA	20 U	20 U	20 U	20 U [20 U]	20 U	20 U	20 U
4-Nitrophenol	ug/L	NA	20 U	20 U	20 U	20 U [20 U]	20 U	20 U	20 U
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	1.5 J	5.0 U	5.0 U
Acenaphthylene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Benzo(a)pyrene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Benzo(b)fluoranthene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Benzo(g,h,i)perylene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Benzo(k)fluoranthene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
bis(2-Chloroethyl)ether	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
bis(2-Ethylhexyl)phthalate	ug/L	NA	34	R	5.0 U	R [5.0 U]	16	5.0 U	5.0 U
Butylbenzylphthalate	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Chrysene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Diallate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Dibenzofuran	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Diethylphthalate	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Dimethylphthalate	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Di-n-Butylphthalate	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Di-n-Octylphthalate	ug/L	NA	16	5.0 U	4.7 J	5.0 U [5.0 U]	5.0 U	5.0 U	2.9 J
Diphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Fluorene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Hexachlorobenzene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Hexachlorobutadiene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Hexachlorocyclopentadiene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Hexachloroethane	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Hexachloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

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Semivolatile Organics (Cont'd.)									
Isophorone	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Isosafrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	1.4 J	5.0 U	5.0 U
Nitrobenzene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
N-Nitrosodiphenylamine	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	20 U	20 U	20 U	20 U [20 U]	20 U	20 U	20 U
Phenacetin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Phenol	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Pronamide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U
PCBs									
Aroclor-1016	ug/L	0.20 U	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	0.20 U	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	0.40 U	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	0.20 U	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	0.20 U	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	0.20 U	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	0.20 U	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	0.40 U	NA	NA	NA	NA	NA	NA	NA
PCBs-Dissolved									
Aroclor-1016 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.05 U	0.2 U [0.2 U]	0.2 U	0.053 U	0.2 U
Aroclor-1221 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.05 U	0.2 U [0.2 U]	0.2 U	0.053 U	0.2 U
Aroclor-1232 (Dissolved)	ug/L	0.4 U	0.4 U	0.4 U	0.05 U	0.4 U [0.4 U]	0.4 U	0.053 U	0.4 U
Aroclor-1242 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.05 U	0.2 U [0.2 U]	0.2 U	0.053 U	0.2 U

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

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PCBs-Dissolved (Cont'd.)									
Aroclor-1248 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.05 U	0.2 U [0.2 U]	0.2 U	0.053 U	0.2 U
Aroclor-1254 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.05 U	0.2 U [0.2 U]	0.2 U	0.053 U	0.2 U
Aroclor-1260 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.05 U	0.2 U [0.2 U]	0.2 U	0.053 U	0.2 U
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	0.4 U	0.4 U	0.4 U	0.05 U	0.4 U [0.4 U]	0.4 U	0.053 U	0.4 U
Organochlorine Pesticides									
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	NA	0.2 U	0.2 U	0.051 UJ	0.2 U [0.2 U]	0.2 U	0.25 U	0.2 U
Aroclor-1221	ug/L	NA	0.2 U	0.2 U	0.051 UJ	0.2 U [0.2 U]	0.2 U	0.25 U	0.2 U
Aroclor-1232	ug/L	NA	0.4 U	0.4 U	0.051 UJ	0.4 U [0.4 U]	0.4 U	0.25 U	0.4 U
Aroclor-1242	ug/L	NA	0.2 U	0.2 U	0.051 UJ	0.2 U [0.2 U]	0.2 U	0.25 U	0.2 U
Aroclor-1248	ug/L	NA	0.2 U	0.2 U	0.051 UJ	0.2 U [0.2 U]	0.2 U	1.5	0.2 U
Aroclor-1254	ug/L	NA	0.2 U	0.2 U	0.051 UJ	0.2 U [0.2 U]	0.2 U	0.25 U	0.2 U
Aroclor-1260	ug/L	NA	0.2 U	0.2 U	0.051 UJ	0.2 U [0.2 U]	0.2 U	0.25 U	0.2 U
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Organophosphate Pesticides									
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area MW-183WT 6 - 16 08/17/00	Saginaw River Area TW-210S1 02/15/95	Saginaw River Area TW-210S2 02/15/95	Saginaw River Area TW-210WT 02/14/95	Saginaw River Area TW-211S1 02/15/95	Saginaw River Area TW-211S2 02/16/95	Saginaw River Area TW-211WT 02/16/95	Saginaw River Area TW-212S1 02/15/95
Organophosphate Pesticides (Cont'd.)									
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides									
2,4,5-T	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans									
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area MW-183WT 6 - 16 08/17/00	Saginaw River Area TW-210S1 02/15/95	Saginaw River Area TW-210S2 02/15/95	Saginaw River Area TW-210WT 02/14/95	Saginaw River Area TW-211S1 02/15/95	Saginaw River Area TW-211S2 02/16/95	Saginaw River Area TW-211WT 02/16/95	Saginaw River Area TW-212S1 02/15/95
Dioxins/Furans (Cont'd.)									
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	Saginaw River Area TW-212S2 02/16/95	Saginaw River Area TW-212WT 02/15/95	Saginaw River Area TW-212WT 02/16/95	Saginaw River Area TW-213S1 02/16/95	Saginaw River Area TW-213S2 02/17/95	Saginaw River Area TW-213WT 02/17/95	Saginaw River Area X-4AR 3.3 - 8.3 07/24/95	Saginaw River Area X-4AR 3.3 - 8.3 06/09/96
Volatile Organics									
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethene (total)	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	50 UJ	50 UJ	NA	50 UJ	50 UJ	3.0 J	50 UJ	50 U
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	50 UJ	50 U	NA	50 UJ	50 UJ	50 UJ	50 U	50 U
3-Chloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U	50 U	NA	50 U	50 U	50 U	50 U	50 U
Acetone	ug/L	50 UJ	50 UJ	NA	50 UJ	2.6 UJ	7.4 UJ	50 UJ	100 U
Acetonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Disulfide	ug/L	50 U	50 U	NA	50 U	50 U	50 U	50 U	50 U
Carbon Tetrachloride	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	Saginaw River Area TW-212S2 02/16/95	Saginaw River Area TW-212WT 02/15/95	Saginaw River Area TW-212WT 02/16/95	Saginaw River Area TW-213S1 02/16/95	Saginaw River Area TW-213S2 02/17/95	Saginaw River Area TW-213WT 02/17/95	Saginaw River Area X-4AR 3.3 - 8.3 07/24/95	Saginaw River Area X-4AR 3.3 - 8.3 06/09/96
Volatile Organics (Cont'd.)									
Chloroethane	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 UJ	5.0 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total 1,3-Dichloropropenes	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total Xylenes	ug/L	3.0 U	3.0 U	NA	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area TW-212S2 02/16/95	Saginaw River Area TW-212WT 02/15/95	Saginaw River Area TW-212WT 02/16/95	Saginaw River Area TW-213S1 02/16/95	Saginaw River Area TW-213S2 02/17/95	Saginaw River Area TW-213WT 02/17/95	Saginaw River Area X-4AR 3.3 - 8.3 07/24/95	Saginaw River Area X-4AR 3.3 - 8.3 06/09/96
Semivolatile Organics									
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	50 U	50 U	NA	50 U	50 U	50 U	50 U	50 U
2,4,6-Trichlorophenol	ug/L	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dichlorophenol	ug/L	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dimethylphenol	ug/L	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dinitrophenol	ug/L	20 U	20 U	NA	20 U	20 U	20 U	20 U	20 U
2,4-Dinitrotoluene	ug/L	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Chlorophenol	ug/L	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Methylnaphthalene	ug/L	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Methylphenol	ug/L	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	20 U	20 U	NA	20 U	20 U	20 U	20 U	20 U
2-Nitrophenol	ug/L	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Picoline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	20 U	20 U	NA	20 U	20 U	20 U	20 U	20 U
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	20 U	20 U	NA	20 U	20 U	20 U	20 U	20 U
4,6-Dinitro-2-methylphenol	ug/L	20 U	20 U	NA	20 U	20 U	20 U	20 U	20 U
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloro-3-Methylphenol	ug/L	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloroaniline	ug/L	20 U	20 U	NA	20 U	20 U	20 U	20 U	20 U
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methylphenol	ug/L	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area TW-212S2 02/16/95	Saginaw River Area TW-212WT 02/15/95	Saginaw River Area TW-212WT 02/16/95	Saginaw River Area TW-213S1 02/16/95	Saginaw River Area TW-213S2 02/17/95	Saginaw River Area TW-213WT 02/17/95	Saginaw River Area X-4AR 3.3 - 8.3 07/24/95	Saginaw River Area X-4AR 3.3 - 8.3 06/09/96
Semivolatile Organics (Cont'd.)									
4-Nitroaniline	ug/L	20 U	20 U	NA	20 U	20 U	20 U	20 U	20 U
4-Nitrophenol	ug/L	20 U	20 U	NA	20 U	20 U	20 U	20 U	20 U
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acenaphthylene	ug/L	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(a)pyrene	ug/L	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(b)fluoranthene	ug/L	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(g,h,i)perylene	ug/L	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(k)fluoranthene	ug/L	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Chloroethyl)ether	ug/L	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Ethylhexyl)phthalate	ug/L	1.0 J	5.0 U	NA	5.0 U	0.93 J	1.8 J	5.0 U	5.0 U
Butylbenzylphthalate	ug/L	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	10 U	10 U
Chrysene	ug/L	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Diallate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibenzofuran	ug/L	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Diethylphthalate	ug/L	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dimethylphthalate	ug/L	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Di-n-Butylphthalate	ug/L	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Di-n-Octylphthalate	ug/L	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Diphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Fluorene	ug/L	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobenzene	ug/L	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobutadiene	ug/L	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorocyclopentadiene	ug/L	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachloroethane	ug/L	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U	2.0 U
Hexachloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

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Semivolatile Organics (Cont'd.)									
Isophorone	ug/L	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Isosafrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Nitrobenzene	ug/L	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosodiphenylamine	ug/L	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	20 U	20 U	NA	20 U	20 U	20 U	25 U	25 U
Phenacetin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Phenol	ug/L	5.0 U	1.4 J	NA	5.0 U	5.0 U	1.0 J	5.0 U	5.0 U
Pronamide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
PCBs									
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
PCBs-Dissolved									
Aroclor-1016 (Dissolved)	ug/L	0.2 U	NA	0.05 U	0.2 U	0.2 U	0.05 U	0.2 U	0.2 U
Aroclor-1221 (Dissolved)	ug/L	0.2 U	NA	0.05 U	0.5 U	0.5 U	0.05 U	0.2 U	0.2 U
Aroclor-1232 (Dissolved)	ug/L	0.4 U	NA	0.05 U	0.4 U	0.4 U	0.05 U	0.4 U	0.4 U
Aroclor-1242 (Dissolved)	ug/L	0.2 U	NA	0.05 U	0.2 U	0.2 U	0.05 U	0.2 U	0.2 U

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

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PCBs-Dissolved (Cont'd.)									
Aroclor-1248 (Dissolved)	ug/L	0.2 U	NA	0.05 U	0.2 U	0.2 U	0.075	0.2 U	0.2 U
Aroclor-1254 (Dissolved)	ug/L	0.2 U	NA	0.05 U	0.2 U	0.2 U	0.05 U	0.2 U	0.2 U
Aroclor-1260 (Dissolved)	ug/L	0.2 U	NA	0.05 U	0.2 U	0.2 U	0.05 U	0.2 U	0.2 U
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	0.4 U	NA	0.05 U	0.5 U	0.5 U	0.075	0.4 U	0.4 U
Organochlorine Pesticides									
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	0.2 U	NA	24	0.2 U	0.2 U	2.7 U	0.2 U	0.2 U
Aroclor-1221	ug/L	0.2 U	NA	2.6 U	0.2 U	0.2 U	2.7 U	0.2 U	0.2 U
Aroclor-1232	ug/L	0.4 U	NA	2.6 U	0.4 U	0.4 U	2.7 U	0.4 U	0.4 U
Aroclor-1242	ug/L	0.2 U	NA	2.6 U	0.2 U	0.2 U	2.7 U	0.2 U	0.2 U
Aroclor-1248	ug/L	0.2 U	NA	38	0.2 U	0.2 U	17	0.2 U	0.2 U
Aroclor-1254	ug/L	0.2 U	NA	2.6 U	0.2 U	0.2 U	2.7 U	0.2 U	0.2 U
Aroclor-1260	ug/L	0.2 U	NA	2.6 U	0.2 U	0.2 U	4.1	0.2 U	0.2 U
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Organophosphate Pesticides									
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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Organophosphate Pesticides (Cont'd.)									
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides									
2,4,5-T	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans									
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area TW-212S2 02/16/95	Saginaw River Area TW-212WT 02/15/95	Saginaw River Area TW-212WT 02/16/95	Saginaw River Area TW-213S1 02/16/95	Saginaw River Area TW-213S2 02/17/95	Saginaw River Area TW-213WT 02/17/95	Saginaw River Area X-4AR 3.3 - 8.3 07/24/95	Saginaw River Area X-4AR 3.3 - 8.3 06/09/96
Dioxins/Furans (Cont'd.)									
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	Saginaw River Area X-4AR 3.3 - 8.3 03/05/97	Saginaw River Area X-4CAUG 18 - 23 07/24/95	Saginaw River Area X-4CAUG 18 - 23 06/08/96	Saginaw River Area X-9AR 3 - 13 07/24/95	Saginaw River Area X-9AR 3 - 13 06/09/96	Saginaw River Area X-9AR 3 - 13 03/05/97	Saginaw River Area X-9AR 3 - 13 12/15/06	Saginaw River Area X-9BR 26 - 31 07/24/95
Volatile Organics									
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA	NA	1.0 U	NA
1,1,2-Trichloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	5.0 U	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA	NA	1.0 U	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA	NA	1.0 U	NA
1,2-Dichlorobenzene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
1,2-Dichloroethene (total)	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	NA	1.0 U
1,2-Dichloropropane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	NA	50 UJ	50 U	50 UJ	50 U	NA	25 U	50 UJ
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	NA	50 U	50 U	50 U	50 U	NA	50 U	50 U
3-Chloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	NA	50 U	50 U	50 U	50 U	NA	50 U	50 U
Acetone	ug/L	NA	50 UJ	100 U	50 UJ	100 U	NA	25 UJ	50 UJ
Acetonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	NA	1.0 U	5.0 U	1.0 U	5.0 U	NA	1.0 U	1.0 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
Bromoform	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
Bromomethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
Carbon Disulfide	ug/L	NA	50 U	50 U	50 U	50 U	NA	5.0 U	50 U
Carbon Tetrachloride	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
Chlorobenzene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	Saginaw River Area X-4AR 3.3 - 8.3 03/05/97	Saginaw River Area X-4CAUG 18 - 23 07/24/95	Saginaw River Area X-4CAUG 18 - 23 06/08/96	Saginaw River Area X-9AR 3 - 13 07/24/95	Saginaw River Area X-9AR 3 - 13 06/09/96	Saginaw River Area X-9AR 3 - 13 03/05/97	Saginaw River Area X-9AR 3 - 13 12/15/06	Saginaw River Area X-9BR 26 - 31 07/24/95
Volatile Organics (Cont'd.)									
Chloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
Chloroform	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
Chloromethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
Cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	1.0 U	NA
Dibromochloromethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA	NA	1.0 UJ	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA	NA	5.0 U	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA	NA	10 U	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	1.0 U	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA	NA	5.0 U	NA
Methylene Chloride	ug/L	NA	1.0 UJ	5.0 U	1.0 UJ	5.0 U	NA	5.0 U	1.0 UJ
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
Toluene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA	NA	1.0 U	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
Total 1,3-Dichloropropenes	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
Total Xylenes	ug/L	NA	3.0 U	3.0 U	3.0 U	3.0 U	NA	2.0 U	3.0 U

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area X-4AR 3.3 - 8.3 03/05/97	Saginaw River Area X-4CAUG 18 - 23 07/24/95	Saginaw River Area X-4CAUG 18 - 23 06/08/96	Saginaw River Area X-9AR 3 - 13 07/24/95	Saginaw River Area X-9AR 3 - 13 06/09/96	Saginaw River Area X-9AR 3 - 13 03/05/97	Saginaw River Area X-9AR 3 - 13 12/15/06	Saginaw River Area X-9BR 26 - 31 07/24/95
Semivolatile Organics									
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	5.0 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	5.0 U
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	50 U	50 U	50 U	50 U	NA	NA	50 U
2,4,6-Trichlorophenol	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	5.0 U
2,4-Dichlorophenol	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	5.0 U
2,4-Dimethylphenol	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	5.0 U
2,4-Dinitrophenol	ug/L	NA	20 U	20 UJ	20 U	20 UJ	NA	NA	20 U
2,4-Dinitrotoluene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	5.0 U
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	5.0 U
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	5.0 U
2-Chlorophenol	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	5.0 U
2-Methylnaphthalene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	5.0 U
2-Methylphenol	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	5.0 U
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	20 U	20 U	20 U	20 U	NA	NA	20 U
2-Nitrophenol	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	5.0 U
2-Picoline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	20 U	20 U	20 U	20 U	NA	NA	20 U
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	20 U	20 U	20 U	20 U	NA	NA	20 U
4,6-Dinitro-2-methylphenol	ug/L	NA	20 U	20 U	20 U	20 U	NA	NA	20 U
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	5.0 U
4-Chloro-3-Methylphenol	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	5.0 U
4-Chloroaniline	ug/L	NA	20 U	20 U	20 U	20 U	NA	NA	20 U
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	5.0 U
4-Methylphenol	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	5.0 U

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	Saginaw River Area X-4AR 3.3 - 8.3 03/05/97	Saginaw River Area X-4CAUG 18 - 23 07/24/95	Saginaw River Area X-4CAUG 18 - 23 06/08/96	Saginaw River Area X-9AR 3 - 13 07/24/95	Saginaw River Area X-9AR 3 - 13 06/09/96	Saginaw River Area X-9AR 3 - 13 03/05/97	Saginaw River Area X-9AR 3 - 13 12/15/06	Saginaw River Area X-9BR 26 - 31 07/24/95
Semivolatile Organics (Cont'd.)									
4-Nitroaniline	ug/L	NA	20 U	20 U	20 U	20 U	NA	NA	20 U
4-Nitrophenol	ug/L	NA	20 U	20 UJ	20 U	20 UJ	NA	NA	20 U
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	5.0 U
Acenaphthylene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	5.0 U
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	5.0 U
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	5.0 U
Benzo(a)pyrene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	5.0 U
Benzo(b)fluoranthene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	5.0 U
Benzo(g,h,i)perylene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	5.0 U
Benzo(k)fluoranthene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	5.0 U
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	5.0 U
bis(2-Chloroethyl)ether	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	5.0 U
bis(2-Ethylhexyl)phthalate	ug/L	NA	5.0 U	5.0 UJ	5.0 U	5.0 UJ	NA	NA	5.0 U
Butylbenzylphthalate	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	5.0 U
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	10 U	10 U	10 U	10 U	NA	NA	10 U
Chrysene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	5.0 U
Diallate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	5.0 U
Dibenzofuran	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	5.0 U
Diethylphthalate	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	5.0 U
Dimethylphthalate	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	5.0 U
Di-n-Butylphthalate	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	5.0 U
Di-n-Octylphthalate	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	5.0 U
Diphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	5.0 U
Fluorene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	5.0 U
Hexachlorobenzene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	5.0 U
Hexachlorobutadiene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	5.0 U
Hexachlorocyclopentadiene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	5.0 U
Hexachloroethane	ug/L	NA	5.0 U	2.0 U	5.0 U	2.0 U	NA	NA	5.0 U
Hexachloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	5.0 U

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TABLE A-1
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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area X-4AR 3.3 - 8.3 03/05/97	Saginaw River Area X-4CAUG 18 - 23 07/24/95	Saginaw River Area X-4CAUG 18 - 23 06/08/96	Saginaw River Area X-9AR 3 - 13 07/24/95	Saginaw River Area X-9AR 3 - 13 06/09/96	Saginaw River Area X-9AR 3 - 13 03/05/97	Saginaw River Area X-9AR 3 - 13 12/15/06	Saginaw River Area X-9BR 26 - 31 07/24/95
Semivolatile Organics (Cont'd.)									
Isophorone	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	5.0 U
Isosafrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	5.0 U
Nitrobenzene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	5.0 U
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	5.0 U
N-Nitrosodiphenylamine	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	5.0 U
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	25 U	25 U	25 U	25 U	NA	NA	25 U
Phenacetin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	5.0 U
Phenol	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	4.7 J
Pronamide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	5.0 U
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	5.0 U
PCBs									
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
PCBs-Dissolved									
Aroclor-1016 (Dissolved)	ug/L	0.2 U	0.2 UJ	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U
Aroclor-1221 (Dissolved)	ug/L	0.2 U	0.2 UJ	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U
Aroclor-1232 (Dissolved)	ug/L	0.4 U	0.4 UJ	0.4 U	0.4 U	0.4 U	0.4 U	NA	0.4 U
Aroclor-1242 (Dissolved)	ug/L	0.2 U	0.2 UJ	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U

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SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	Saginaw River Area X-4AR 3.3 - 8.3 03/05/97	Saginaw River Area X-4CAUG 18 - 23 07/24/95	Saginaw River Area X-4CAUG 18 - 23 06/08/96	Saginaw River Area X-9AR 3 - 13 07/24/95	Saginaw River Area X-9AR 3 - 13 06/09/96	Saginaw River Area X-9AR 3 - 13 03/05/97	Saginaw River Area X-9AR 3 - 13 12/15/06	Saginaw River Area X-9BR 26 - 31 07/24/95
PCBs-Dissolved (Cont'd.)									
Aroclor-1248 (Dissolved)	ug/L	0.2 U	0.2 UJ	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U
Aroclor-1254 (Dissolved)	ug/L	0.2 U	0.2 UJ	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U
Aroclor-1260 (Dissolved)	ug/L	0.2 U	0.2 UJ	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	NA	0.4 U
Organochlorine Pesticides									
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	0.2 U	0.2 U	0.2 U	0.2 UJ	0.2 U	0.2 U	NA	0.2 UJ
Aroclor-1221	ug/L	0.2 U	0.2 U	0.2 U	0.2 UJ	0.2 U	0.2 U	NA	0.2 UJ
Aroclor-1232	ug/L	0.4 U	0.4 U	0.4 U	0.4 UJ	0.4 U	0.4 U	NA	0.4 UJ
Aroclor-1242	ug/L	0.2 U	0.2 U	0.2 U	0.2 UJ	0.2 U	0.2 U	NA	0.2 UJ
Aroclor-1248	ug/L	0.2 U	0.2 U	0.2 U	0.2 UJ	0.2 U	0.2 U	NA	0.2 UJ
Aroclor-1254	ug/L	0.2 U	0.2 U	0.2 U	0.2 UJ	0.2 U	0.2 U	NA	0.2 UJ
Aroclor-1260	ug/L	0.2 U	0.2 U	0.2 U	0.2 UJ	0.2 U	0.2 U	NA	0.2 UJ
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Organophosphate Pesticides									
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area X-4AR 3.3 - 8.3 03/05/97	Saginaw River Area X-4CAUG 18 - 23 07/24/95	Saginaw River Area X-4CAUG 18 - 23 06/08/96	Saginaw River Area X-9AR 3 - 13 07/24/95	Saginaw River Area X-9AR 3 - 13 06/09/96	Saginaw River Area X-9AR 3 - 13 03/05/97	Saginaw River Area X-9AR 3 - 13 12/15/06	Saginaw River Area X-9BR 26 - 31 07/24/95
Organophosphate Pesticides (Cont'd.)									
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides									
2,4,5-T	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans									
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

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Dioxins/Furans (Cont'd.)									
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area X-9BR 26 - 31 06/08/96	Saginaw River Area X-9BR 26 - 31 12/15/06	Saginaw River Area X-9CAUG 20 - 25 07/24/95	Saginaw River Area X-9CAUG 20 - 25 06/08/96	Saginaw River Area X-9CAUG 20 - 25 12/15/06	Secondary Settling Pond MW-115S1 20 - 25 07/15/95	Secondary Settling Pond MW-115S1 20 - 25 06/07/96
Volatile Organics								
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	1.0 U	NA	NA	1.0 U	NA	NA
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	5.0 U	NA	NA	5.0 U	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	1.0 U	NA	NA	1.0 U	NA	NA
1,2-Dibromoethane	ug/L	NA	1.0 U	NA	NA	1.0 U	NA	NA
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA
1,2-Dichloroethene (total)	ug/L	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	NA
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	50 U	25 U	50 UJ	50 U	25 U	50 UJ	NA
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	50 U	50 U	50 U	50 U	50 U	50 U	NA
3-Chloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U	50 U	50 U	50 U	50 U	50 U	NA
Acetone	ug/L	100 U	25 UJ	50 UJ	100 U	25 UJ	50 UJ	NA
Acetonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	5.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	NA
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA
Bromomethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA
Carbon Disulfide	ug/L	50 U	5.0 U	50 U	50 U	5.0 U	50 U	NA
Carbon Tetrachloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area X-9BR 26 - 31 06/08/96	Saginaw River Area X-9BR 26 - 31 12/15/06	Saginaw River Area X-9CAUG 20 - 25 07/24/95	Saginaw River Area X-9CAUG 20 - 25 06/08/96	Saginaw River Area X-9CAUG 20 - 25 12/15/06	Secondary Settling Pond MW-115S1 20 - 25 07/15/95	Secondary Settling Pond MW-115S1 20 - 25 06/07/96
Volatile Organics (Cont'd.)								
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA
Chloroform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA
Chloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA
Cyclohexane	ug/L	NA	1.0 U	NA	NA	1.0 U	NA	NA
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	1.0 UJ	NA	NA	1.0 UJ	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	5.0 U	NA	NA	5.0 U	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	10 U	NA	NA	10 U	NA	NA
Methyl cyclohexane	ug/L	NA	1.0 U	NA	NA	1.0 U	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	5.0 U	NA	NA	5.0 U	NA	NA
Methylene Chloride	ug/L	5.0 U	5.0 U	1.0 UJ	5.0 U	5.0 U	1.0 U	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA
Toluene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA
Trichlorofluoromethane	ug/L	NA	1.0 U	NA	NA	1.0 U	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA
Total 1,3-Dichloropropenes	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA
Total Xylenes	ug/L	3.0 U	2.0 U	3.0 U	3.0 U	2.0 U	3.0 U	NA

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SAGINAW, MICHIGAN

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Semivolatile Organics								
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5.0 U	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	50 U	5.0 U	50 U	50 U	5.0 U	50 U	50 U
2,4,6-Trichlorophenol	ug/L	5.0 U	4.0 U	5.0 U	5.0 U	4.0 U	5.0 U	5.0 U
2,4-Dichlorophenol	ug/L	5.0 U	10 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U
2,4-Dimethylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dinitrophenol	ug/L	20 U	20 U	20 U	20 U	20 U	20 U	20 U
2,4-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Chlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Methylnaphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	20 U	20 U	20 U	20 U	20 U	20 U	20 U
2-Nitrophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Picoline	ug/L	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	20 U	4.0 U	20 U	20 U	4.0 U	20 U	20 U
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	20 U	20 U	20 U	20 U	20 U	20 U	20 U
4,6-Dinitro-2-methylphenol	ug/L	20 U	20 U	20 U	20 U	20 U	20 U	20 U
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloro-3-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloroaniline	ug/L	20 U	10 U	20 U	20 U	10 U	20 U	20 U
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

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Semivolatile Organics (Cont'd.)								
4-Nitroaniline	ug/L	20 U	20 U	20 U	20 U	20 U	20 U	20 U
4-Nitrophenol	ug/L	20 U	20 U	20 U	20 U	20 U	20 UJ	20 U
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acenaphthylene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetophenone	ug/L	NA	5.0 U	NA	NA	5.0 U	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Atrazine	ug/L	NA	3.0 U	NA	NA	3.0 U	NA	NA
Benzaldehyde	ug/L	NA	10 U	NA	NA	10 U	NA	NA
Benzo(a)anthracene	ug/L	5.0 U	1.0 U	5.0 U	5.0 U	1.0 U	5.0 U	5.0 U
Benzo(a)pyrene	ug/L	5.0 U	1.0 U	5.0 U	5.0 U	1.0 U	5.0 U	5.0 U
Benzo(b)fluoranthene	ug/L	5.0 U	1.0 U	5.0 U	5.0 U	1.0 U	5.0 U	5.0 U
Benzo(g,h,i)perylene	ug/L	5.0 U	1.0 U	5.0 U	5.0 U	1.0 U	5.0 U	5.0 U
Benzo(k)fluoranthene	ug/L	5.0 U	1.0 U	5.0 U	5.0 U	1.0 U	5.0 U	5.0 U
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	10 U	NA	NA	10 U	NA	NA
bis(2-Chloroethoxy)methane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Chloroethyl)ether	ug/L	5.0 U	1.0 U	5.0 U	5.0 U	1.0 U	5.0 U	5.0 U
bis(2-Ethylhexyl)phthalate	ug/L	1.1 J	5.0 U	5.0 U	5.0 U	5.0 U	6.4	5.0 U
Butylbenzylphthalate	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U
Caprolactam	ug/L	NA	10 U	NA	NA	10 U	NA	NA
Carbazole	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene	ug/L	5.0 U	1.0 U	5.0 U	5.0 U	1.0 U	5.0 U	5.0 U
Diallate	ug/L	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	5.0 U	2.0 U	5.0 U	5.0 U	2.0 U	5.0 U	5.0 U
Dibenzofuran	ug/L	5.0 U	4.0 U	5.0 U	5.0 U	4.0 U	5.0 U	5.0 U
Diethylphthalate	ug/L	5.0 U	R	5.0 U	5.0 U	R	5.0 U	5.0 U
Dimethylphthalate	ug/L	5.0 U	R	5.0 U	5.0 U	R	5.0 U	5.0 U
Di-n-Butylphthalate	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U
Di-n-Octylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Diphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	5.0 U	1.0 U	5.0 U	5.0 U	1.0 U	5.0 U	5.0 U
Fluorene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobenzene	ug/L	5.0 U	0.20 U	5.0 U	5.0 U	0.20 U	5.0 U	5.0 U
Hexachlorobutadiene	ug/L	5.0 U	1.0 U	5.0 U	5.0 U	1.0 U	5.0 U	5.0 U
Hexachlorocyclopentadiene	ug/L	5.0 U	R	5.0 U	5.0 U	R	5.0 U	5.0 U
Hexachloroethane	ug/L	2.0 U	5.0 U	5.0 U	2.0 U	5.0 U	5.0 U	2.0 U
Hexachloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	5.0 U	2.0 U	5.0 U	5.0 U	2.0 U	5.0 U	5.0 U

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Semivolatile Organics (Cont'd.)								
Isophorone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Isosafrole	ug/L	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Nitrobenzene	ug/L	5.0 U	3.0 U	5.0 U	5.0 U	3.0 U	5.0 U	5.0 U
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosodiphenylamine	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	25 U	5.0 U	25 U	25 U	5.0 U	25 U	25 U
Phenacetin	ug/L	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	5.0 U	2.0 U	5.0 U	5.0 U	2.0 U	5.0 U	5.0 U
Phenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Pronamide	ug/L	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
PCBs								
Aroclor-1016	ug/L	NA	0.20 U	NA	NA	0.20 U	NA	NA
Aroclor-1221	ug/L	NA	0.20 U	NA	NA	0.20 U	NA	NA
Aroclor-1232	ug/L	NA	0.20 U	NA	NA	0.20 U	NA	NA
Aroclor-1242	ug/L	NA	0.20 U	NA	NA	0.20 U	NA	NA
Aroclor-1248	ug/L	NA	0.20 U	NA	NA	0.20 U	NA	NA
Aroclor-1254	ug/L	NA	0.20 U	NA	NA	0.20 U	NA	NA
Aroclor-1260	ug/L	NA	0.20 U	NA	NA	0.20 U	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	0.20 U	NA	NA	0.20 U	NA	NA
PCBs-Dissolved								
Aroclor-1016 (Dissolved)	ug/L	0.2 U	NA	0.2 U	0.2 U	NA	0.2 U	NA
Aroclor-1221 (Dissolved)	ug/L	0.2 U	NA	0.2 U	0.2 U	NA	0.8 U*	NA
Aroclor-1232 (Dissolved)	ug/L	0.4 U	NA	0.4 U	0.4 U	NA	0.4 U	NA
Aroclor-1242 (Dissolved)	ug/L	0.2 U	NA	0.2 U	0.2 U	NA	0.2 U	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area X-9BR 26 - 31 06/08/96	Saginaw River Area X-9BR 26 - 31 12/15/06	Saginaw River Area X-9CAUG 20 - 25 07/24/95	Saginaw River Area X-9CAUG 20 - 25 06/08/96	Saginaw River Area X-9CAUG 20 - 25 12/15/06	Secondary Settling Pond MW-115S1 20 - 25 07/15/95	Secondary Settling Pond MW-115S1 20 - 25 06/07/96
PCBs-Dissolved (Cont'd.)								
Aroclor-1248 (Dissolved)	ug/L	0.2 U	NA	0.2 U	0.2 U	NA	0.2 U	NA
Aroclor-1254 (Dissolved)	ug/L	0.2 U	NA	0.2 U	0.2 U	NA	0.2 U	NA
Aroclor-1260 (Dissolved)	ug/L	0.2 U	NA	0.2 U	0.2 U	NA	0.2 U	NA
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	0.4 U	NA	0.4 U	0.4 U	NA	0.8 U	NA
Organochlorine Pesticides								
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	0.2 U	NA	0.2 U	0.2 U	NA	0.2 U	NA
Aroclor-1221	ug/L	0.2 U	NA	0.2 U	0.2 U	NA	0.8 U*	NA
Aroclor-1232	ug/L	0.4 U	NA	0.4 U	0.4 U	NA	0.4 U	NA
Aroclor-1242	ug/L	0.2 U	NA	0.2 U	0.2 U	NA	0.2 U	NA
Aroclor-1248	ug/L	0.2 U	NA	0.2 U	0.2 U	NA	0.2 U	NA
Aroclor-1254	ug/L	0.2 U	NA	0.2 U	0.2 U	NA	0.2 U	NA
Aroclor-1260	ug/L	0.2 U	NA	0.2 U	0.2 U	NA	0.2 U	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA
Organophosphate Pesticides								
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area X-9BR 26 - 31 06/08/96	Saginaw River Area X-9BR 26 - 31 12/15/06	Saginaw River Area X-9CAUG 20 - 25 07/24/95	Saginaw River Area X-9CAUG 20 - 25 06/08/96	Saginaw River Area X-9CAUG 20 - 25 12/15/06	Secondary Settling Pond MW-115S1 20 - 25 07/15/95	Secondary Settling Pond MW-115S1 20 - 25 06/07/96
Organophosphate Pesticides (Cont'd.)								
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA
Herbicides								
2,4,5-T	ug/L	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans								
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

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Dioxins/Furans (Cont'd.)								
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Secondary Settling Pond MW-115S1 20 - 25 05/18/00	Secondary Settling Pond MW-115S2 32.5 - 37.5 07/15/95	Secondary Settling Pond MW-115S3 41.5 - 46.5 07/15/95	Secondary Settling Pond MW-115WT 2.5 - 7.5 07/15/95	Secondary Settling Pond MW-116S1 27 - 32 07/15/95	Secondary Settling Pond MW-116S2 44 - 49 07/15/95
Volatile Organics							
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethene (total)	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	NA	50 UJ	50 UJ	50 UJ	50 UJ	50 UJ
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	NA	50 U	50 U	50 U	50 U	50 U
3-Chloropropene	ug/L	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	NA	50 U	50 U	50 U	50 U	50 U
Acetone	ug/L	NA	50 UJ	50 UJ	50 UJ	50 UJ	50 UJ
Acetonitrile	ug/L	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA
Benzene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Disulfide	ug/L	NA	50 U	50 U	50 U	50 U	50 U
Carbon Tetrachloride	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

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Volatile Organics (Cont'd.)							
Chloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA
Styrene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total 1,3-Dichloropropenes	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total Xylenes	ug/L	NA	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U

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Semivolatile Organics							
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	1.0 U [1.0 U]	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1.0 U [1.0 U]	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	1.0 U [1.0 U]	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	5.0 U [5.0 U]	50 U	50 U	50 U	50 U	50 U
2,4,6-Trichlorophenol	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dichlorophenol	ug/L	10 U [10 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dimethylphenol	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dinitrophenol	ug/L	20 U [20 U]	20 U	20 U	20 U	20 U	20 U
2,4-Dinitrotoluene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Chlorophenol	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Methylnaphthalene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Methylphenol	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	20 U [20 U]	20 U	20 U	20 U	20 U	20 U
2-Nitrophenol	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Picoline	ug/L	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	20 U [20 U]	20 U	20 U	20 U	20 U	20 U
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	20 U [20 U]	20 U	20 U	20 U	20 U	20 U
4,6-Dinitro-2-methylphenol	ug/L	20 U [20 U]	20 U	20 U	20 U	20 U	20 U
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloro-3-Methylphenol	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloroaniline	ug/L	10 U [10 U]	20 U	20 U	20 U	20 U	20 U
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methylphenol	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

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SAGINAW, MICHIGAN

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Semivolatile Organics (Cont'd.)							
4-Nitroaniline	ug/L	20 U [20 U]	20 U	20 U	20 U	20 U	20 U
4-Nitrophenol	ug/L	20 U [20 U]	20 UJ	20 UJ	20 UJ	20 UJ	20 UJ
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acenaphthylene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Atrazine	ug/L	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(a)pyrene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(b)fluoranthene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(g,h,i)perylene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(k)fluoranthene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Chloroethyl)ether	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Ethylhexyl)phthalate	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	0.63 J
Butylbenzylphthalate	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	10 U [10 U]	10 U	10 U	10 U	10 U	10 U
Chrysene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Diallate	ug/L	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibenzofuran	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Diethylphthalate	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dimethylphthalate	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Di-n-Butylphthalate	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Di-n-Octylphthalate	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Diphenylamine	ug/L	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Fluorene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobenzene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobutadiene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorocyclopentadiene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachloroethane	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachloropropene	ug/L	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

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TABLE A-1
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ORGANIC COMPOUNDS

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SAGINAW, MICHIGAN

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Semivolatile Organics (Cont'd.)							
Isophorone	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Isosafrole	ug/L	NA	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Nitrobenzene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosodiphenylamine	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	1.0 U [1.0 U]	25 U	25 U	25 U	25 U	25 U
Phenacetin	ug/L	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Phenol	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Pronamide	ug/L	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Pyridine	ug/L	NA	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
PCBs							
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA
PCBs-Dissolved							
Aroclor-1016 (Dissolved)	ug/L	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1221 (Dissolved)	ug/L	NA	0.8 U*	0.8 U*	0.8 U*	0.2 U	0.8 U*
Aroclor-1232 (Dissolved)	ug/L	NA	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Aroclor-1242 (Dissolved)	ug/L	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U

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PCBs-Dissolved (Cont'd.)							
Aroclor-1248 (Dissolved)	ug/L	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1254 (Dissolved)	ug/L	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1260 (Dissolved)	ug/L	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	0.8 U	0.8 U	0.8 U	0.4 U	0.8 U
Organochlorine Pesticides							
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1221	ug/L	NA	0.8 U*	0.8 U*	0.8 U*	0.8 U*	0.8 U*
Aroclor-1232	ug/L	NA	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Aroclor-1242	ug/L	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1248	ug/L	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1254	ug/L	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1260	ug/L	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA
Organophosphate Pesticides							
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA

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Organophosphate Pesticides (Cont'd.)							
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA
Herbicides							
2,4,5-T	ug/L	NA	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA	NA
Dioxins/Furans							
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Secondary Settling Pond MW-115S1 20 - 25 05/18/00	Secondary Settling Pond MW-115S2 32.5 - 37.5 07/15/95	Secondary Settling Pond MW-115S3 41.5 - 46.5 07/15/95	Secondary Settling Pond MW-115WT 2.5 - 7.5 07/15/95	Secondary Settling Pond MW-116S1 27 - 32 07/15/95	Secondary Settling Pond MW-116S2 44 - 49 07/15/95
Dioxins/Furans (Cont'd.)							
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Secondary Settling Pond MW-116WT 2 - 7 07/15/95	Secondary Settling Pond MW-131S1 42.5 - 45 07/27/95	Secondary Settling Pond MW-131S2 49.5 - 52 07/27/95	Secondary Settling Pond MW-131S2 49.5 - 52 06/06/96	Secondary Settling Pond MW-131WT 2 - 12 07/27/95	Secondary Settling Pond MW-150WT 3 - 13 06/13/96
Volatile Organics							
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	NA	1.0 U	1.0 U [1.0 U]
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	NA	1.0 U	1.0 U [1.0 U]
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	NA	1.0 U	1.0 U [1.0 U]
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	NA	1.0 U	1.0 U [1.0 U]
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	NA	1.0 U	1.0 U [1.0 U]
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	5.0 U	1.0 U	1.0 U [1.0 U]
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	NA	1.0 U	1.0 U [1.0 U]
1,2-Dichloroethene (total)	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	NA	1.0 U	1.0 U [1.0 U]
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	NA	1.0 U	1.0 U [1.0 U]
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	5.0 U	1.0 U	1.0 U [1.0 U]
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	5.0 U	1.0 U	1.0 U [1.0 U]
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	50 UJ	50 U	50 U [50 U]	NA	50 U	50 U [50 U]
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	50 U	R	R [R]	NA	50 U	50 U [50 U]
3-Chloropropene	ug/L	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U	50 U	50 U [50 U]	NA	50 U	50 U [50 U]
Acetone	ug/L	50 UJ	50 U	50 U [50 U]	NA	50 U	100 U [100 U]
Acetonitrile	ug/L	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA
Benzene	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	NA	1.0 U	5.0 U [5.0 U]
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	NA	1.0 U	1.0 U [1.0 U]
Bromoform	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	NA	1.0 U	1.0 U [1.0 U]
Bromomethane	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	NA	1.0 U	1.0 U [1.0 U]
Carbon Disulfide	ug/L	50 U	50 U	50 U [50 U]	NA	50 U	50 U [50 U]
Carbon Tetrachloride	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	NA	1.0 U	1.0 U [1.0 U]
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	NA	1.0 U	1.0 U [1.0 U]

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Secondary Settling Pond MW-116WT 2 - 7 07/15/95	Secondary Settling Pond MW-131S1 42.5 - 45 07/27/95	Secondary Settling Pond MW-131S2 49.5 - 52 07/27/95	Secondary Settling Pond MW-131S2 49.5 - 52 06/06/96	Secondary Settling Pond MW-131WT 2 - 12 07/27/95	Secondary Settling Pond MW-150WT 3 - 13 06/13/96
Volatile Organics (Cont'd.)							
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	NA	1.0 U	1.0 U [1.0 U]
Chloroform	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	NA	1.0 U	1.0 U [1.0 U]
Chloromethane	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	NA	1.0 U	1.0 U [1.0 U]
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	NA	1.0 U	1.0 U [1.0 U]
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	NA	1.0 U	1.0 U [1.0 U]
Cyclohexane	ug/L	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	NA	1.0 U	1.0 U [1.0 U]
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	NA	1.0 U	1.0 U [1.0 U]
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	NA	1.0 U	5.0 U [5.0 U]
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	NA	1.0 U	1.0 U [1.0 U]
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	NA	1.0 U	1.0 U [1.0 U]
Toluene	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	NA	1.0 U	1.0 U [1.0 U]
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	NA	1.0 U	1.0 U [1.0 U]
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 UJ	1.0 UJ [1.0 UJ]	NA	1.0 U	1.0 U [1.0 U]
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	NA	1.0 U	1.0 U [1.0 U]
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	NA	1.0 U	1.0 U [1.0 U]
Total 1,3-Dichloropropenes	ug/L	1.0 U	1.0 U	1.0 U [1.0 U]	NA	1.0 U	1.0 U [1.0 U]
Total Xylenes	ug/L	3.0 U	3.0 U	3.0 U [3.0 U]	NA	3.0 U	3.0 U [3.0 U]

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Secondary Settling Pond MW-116WT 2 - 7 07/15/95	Secondary Settling Pond MW-131S1 42.5 - 45 07/27/95	Secondary Settling Pond MW-131S2 49.5 - 52 07/27/95	Secondary Settling Pond MW-131S2 49.5 - 52 06/06/96	Secondary Settling Pond MW-131WT 2 - 12 07/27/95	Secondary Settling Pond MW-150WT 3 - 13 06/13/96
Semivolatile Organics							
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U [5.0 U]
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U [5.0 U]
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	50 U	50 U	50 U [50 U]	50 U	50 U	50 U [50 U]
2,4,6-Trichlorophenol	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U [5.0 U]
2,4-Dichlorophenol	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U [5.0 U]
2,4-Dimethylphenol	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U [5.0 U]
2,4-Dinitrophenol	ug/L	20 U	20 U	20 U [20 U]	20 UJ	20 U	20 U [20 U]
2,4-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U [5.0 U]
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U [5.0 U]
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U [5.0 U]
2-Chlorophenol	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U [5.0 U]
2-Methylnaphthalene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U [5.0 U]
2-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U [5.0 U]
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	20 U	20 U	20 U [20 U]	20 U	20 U	20 U [20 U]
2-Nitrophenol	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U [5.0 U]
2-Picoline	ug/L	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	20 U	20 U	20 U [20 U]	20 U	20 U	20 U [20 U]
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	20 U	20 U	20 U [20 U]	20 U	20 U	20 U [20 U]
4,6-Dinitro-2-methylphenol	ug/L	20 U	20 U	20 U [20 U]	20 U	20 U	20 U [20 U]
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U [5.0 U]
4-Chloro-3-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U [5.0 U]
4-Chloroaniline	ug/L	20 U	20 U	20 U [20 U]	20 U	20 U	20 U [20 U]
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U [5.0 U]
4-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U [5.0 U]

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Secondary Settling Pond MW-116WT 2 - 7 07/15/95	Secondary Settling Pond MW-131S1 42.5 - 45 07/27/95	Secondary Settling Pond MW-131S2 49.5 - 52 07/27/95	Secondary Settling Pond MW-131S2 49.5 - 52 06/06/96	Secondary Settling Pond MW-131WT 2 - 12 07/27/95	Secondary Settling Pond MW-150WT 3 - 13 06/13/96
Semivolatile Organics (Cont'd.)							
4-Nitroaniline	ug/L	20 U	20 U	20 U [20 U]	20 U	20 U	20 U [20 U]
4-Nitrophenol	ug/L	20 UJ	20 U	20 U [20 U]	20 U	20 U	20 U [20 U]
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U [5.0 U]
Acenaphthylene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U [5.0 U]
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U [5.0 U]
Atrazine	ug/L	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U [5.0 U]
Benzo(a)pyrene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U [5.0 U]
Benzo(b)fluoranthene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U [5.0 U]
Benzo(g,h,i)perylene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U [5.0 U]
Benzo(k)fluoranthene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U [5.0 U]
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U [5.0 U]
bis(2-Chloroethyl)ether	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U [5.0 U]
bis(2-Ethylhexyl)phthalate	ug/L	5.0 U	1.4 J	5.8 [0.92 J]	5.0 UJ	5.0 U	5.0 U [5.0 U]
Butylbenzylphthalate	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U [5.0 U]
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	10 U	10 U	10 U [10 U]	10 U	10 U	10 U [10 U]
Chrysene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U [5.0 U]
Diallate	ug/L	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U [5.0 U]
Dibenzofuran	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U [5.0 U]
Diethylphthalate	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U [5.0 U]
Dimethylphthalate	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U [5.0 U]
Di-n-Butylphthalate	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U [5.0 U]
Di-n-Octylphthalate	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U [5.0 U]
Diphenylamine	ug/L	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U [5.0 U]
Fluorene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U [5.0 U]
Hexachlorobenzene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U [5.0 U]
Hexachlorobutadiene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U [5.0 U]
Hexachlorocyclopentadiene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U [5.0 U]
Hexachloroethane	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	2.0 U	5.0 U	2.0 U [2.0 U]
Hexachloropropene	ug/L	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U [5.0 U]

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TABLE A-1
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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Secondary Settling Pond MW-116WT 2 - 7 07/15/95	Secondary Settling Pond MW-131S1 42.5 - 45 07/27/95	Secondary Settling Pond MW-131S2 49.5 - 52 07/27/95	Secondary Settling Pond MW-131S2 49.5 - 52 06/06/96	Secondary Settling Pond MW-131WT 2 - 12 07/27/95	Secondary Settling Pond MW-150WT 3 - 13 06/13/96
Semivolatile Organics (Cont'd.)							
Isophorone	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U [5.0 U]
Isosafrole	ug/L	NA	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U [5.0 U]
Nitrobenzene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U [5.0 U]
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U [5.0 U]
N-Nitrosodiphenylamine	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U [5.0 U]
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	25 U	25 U	25 U [25 U]	25 U	25 U	25 U [25 U]
Phenacetin	ug/L	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U [5.0 U]
Phenol	ug/L	5.0 U	5.0 U	5.0 [3.9 J]	1.5 J	5.0 U	5.0 U [5.0 U]
Pronamide	ug/L	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U [5.0 U]
Pyridine	ug/L	NA	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U [5.0 U]
PCBs							
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA
PCBs-Dissolved							
Aroclor-1016 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U [0.2 U]	NA	0.2 U	0.2 U [0.2 U]
Aroclor-1221 (Dissolved)	ug/L	0.8 U*	0.2 U	0.2 U [0.2 U]	NA	0.2 U	0.2 U [0.2 U]
Aroclor-1232 (Dissolved)	ug/L	0.4 U	0.4 U	0.4 U [0.4 U]	NA	0.4 U	0.4 U [0.4 U]
Aroclor-1242 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U [0.2 U]	NA	0.2 U	0.2 U [0.2 U]

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Secondary Settling Pond MW-116WT 2 - 7 07/15/95	Secondary Settling Pond MW-131S1 42.5 - 45 07/27/95	Secondary Settling Pond MW-131S2 49.5 - 52 07/27/95	Secondary Settling Pond MW-131S2 49.5 - 52 06/06/96	Secondary Settling Pond MW-131WT 2 - 12 07/27/95	Secondary Settling Pond MW-150WT 3 - 13 06/13/96
PCBs-Dissolved (Cont'd.)							
Aroclor-1248 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U [0.2 U]	NA	0.2 U	0.2 U [0.2 U]
Aroclor-1254 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U [0.2 U]	NA	0.2 U	0.2 U [0.2 U]
Aroclor-1260 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U [0.2 U]	NA	0.2 U	0.2 U [0.2 U]
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	0.8 U	0.4 U	0.4 U [0.4 U]	NA	0.4 U	0.4 U [0.4 U]
Organochlorine Pesticides							
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	0.2 U	0.2 U	0.2 U [0.2 U]	NA	0.2 U	0.2 U [0.2 U]
Aroclor-1221	ug/L	0.8 U*	0.2 U	0.2 U [0.2 U]	NA	0.2 U	0.2 U [0.2 U]
Aroclor-1232	ug/L	0.4 U	0.4 U	0.4 U [0.4 U]	NA	0.4 U	0.4 U [0.4 U]
Aroclor-1242	ug/L	0.2 U	0.2 U	0.2 U [0.2 U]	NA	0.2 U	0.2 U [0.2 U]
Aroclor-1248	ug/L	0.2 U	0.2 U	0.2 U [0.2 U]	NA	0.2 U	0.2 U [0.2 U]
Aroclor-1254	ug/L	0.2 U	0.2 U	0.2 U [0.2 U]	NA	0.2 U	0.2 U [0.2 U]
Aroclor-1260	ug/L	0.2 U	0.2 U	0.2 U [0.2 U]	NA	0.2 U	0.2 U [0.2 U]
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA
Organophosphate Pesticides							
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Secondary Settling Pond MW-116WT 2 - 7 07/15/95	Secondary Settling Pond MW-131S1 42.5 - 45 07/27/95	Secondary Settling Pond MW-131S2 49.5 - 52 07/27/95	Secondary Settling Pond MW-131S2 49.5 - 52 06/06/96	Secondary Settling Pond MW-131WT 2 - 12 07/27/95	Secondary Settling Pond MW-150WT 3 - 13 06/13/96
Organophosphate Pesticides (Cont'd.)							
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA
Herbicides							
2,4,5-T	ug/L	NA	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA	NA
Dioxins/Furans							
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA

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Dioxins/Furans (Cont'd.)							
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Secondary Settling Pond MW-184WT 3 - 13 08/17/00	Secondary Settling Pond MW-185WT 3 - 8 06/03/04	Secondary Settling Pond MW-185WT 3 - 8 08/25/05	Secondary Settling Pond MW-185WT 3 - 8 11/28/07	Secondary Settling Pond TW-214S1 01/27/95	Secondary Settling Pond TW-214S2 01/27/95
Volatile Organics							
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1.0 U [1.0 U]	NA	NA	NA	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U [1.0 U]	NA	NA	NA	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	1.0 U [1.0 U]	NA	NA	NA	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.0 U [1.0 U]	NA	NA	NA	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	1.0 U [1.0 U]	NA	NA	NA	1.0 U	1.0 U
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	1.0 U [1.0 U]	NA	NA	NA	1.0 U	1.0 U
1,2-Dichloroethene (total)	ug/L	1.0 U [1.0 U]	NA	NA	NA	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	1.0 U [1.0 U]	NA	NA	NA	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	1.0 U	1.0 U
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	1.0 U	1.0 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	10 U [10 U]	NA	NA	NA	50 U	50 U
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	10 U [10 U]	NA	NA	NA	50 U	R
3-Chloropropene	ug/L	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	5.0 U [5.0 U]	NA	NA	NA	50 U	50 U
Acetone	ug/L	10 U [10 U]	NA	NA	NA	50 U	50 U
Acetonitrile	ug/L	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA
Benzene	ug/L	1.0 U [1.0 U]	NA	NA	NA	1.0 U	1.0 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1.0 U [1.0 U]	NA	NA	NA	1.0 U	1.0 U
Bromoform	ug/L	1.0 U [1.0 U]	NA	NA	NA	1.0 U	1.0 U
Bromomethane	ug/L	1.0 U [1.0 U]	NA	NA	NA	1.0 U	1.0 U
Carbon Disulfide	ug/L	1.0 U [1.0 U]	NA	NA	NA	50 U	50 U
Carbon Tetrachloride	ug/L	1.0 U [1.0 U]	NA	NA	NA	1.0 U	1.0 U
Chlorobenzene	ug/L	1.0 U [1.0 U]	NA	NA	NA	1.0 U	1.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Secondary Settling Pond MW-184WT 3 - 13 08/17/00	Secondary Settling Pond MW-185WT 3 - 8 06/03/04	Secondary Settling Pond MW-185WT 3 - 8 08/25/05	Secondary Settling Pond MW-185WT 3 - 8 11/28/07	Secondary Settling Pond TW-214S1 01/27/95	Secondary Settling Pond TW-214S2 01/27/95
Volatile Organics (Cont'd.)							
Chloroethane	ug/L	1.0 U [1.0 U]	NA	NA	NA	1.0 U	1.0 U
Chloroform	ug/L	1.0 U [1.0 U]	NA	NA	NA	1.0 U	1.0 U
Chloromethane	ug/L	1.0 U [1.0 U]	NA	NA	NA	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	0.50 U [0.50 U]	NA	NA	NA	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	1.0 U [1.0 U]	NA	NA	NA	1.0 U	1.0 U
Cyclohexane	ug/L	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	1.0 U [1.0 U]	NA	NA	NA	1.0 U	1.0 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1.0 U [1.0 U]	NA	NA	NA	1.0 U	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	1.0 U [1.0 U]	NA	NA	NA	1.0 U	1.0 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1.0 U [1.0 U]	NA	NA	NA	1.0 U	1.0 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1.0 U [1.0 U]	NA	NA	NA	1.0 U	1.0 U
Toluene	ug/L	1.0 U [1.0 U]	NA	NA	NA	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	0.50 U [0.50 U]	NA	NA	NA	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 U [1.0 U]	NA	NA	NA	1.0 U	1.0 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1.0 U [1.0 U]	NA	NA	NA	1.0 U	1.0 U
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	1.0 U [1.0 U]	NA	NA	NA	1.0 U	1.0 U
Total 1,3-Dichloropropenes	ug/L	1.0 U [1.0 U]	NA	NA	NA	1.0 U	1.0 U
Total Xylenes	ug/L	1.0 U [1.0 U]	NA	NA	NA	3.0 U	3.0 U

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SAGINAW, MICHIGAN

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Semivolatile Organics							
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5.0 U [5.0 U]	NA	NA	NA	5.0 U	5.0 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	1.0 U [1.0 U]	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1.0 U [1.0 U]	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	1.0 U [1.0 U]	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	5.0 U [5.0 U]	NA	NA	NA	5.0 U	5.0 U
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	5.0 U [5.0 U]	NA	NA	NA	50 U	50 U
2,4,6-Trichlorophenol	ug/L	5.0 U [5.0 U]	NA	NA	NA	5.0 U	5.0 U
2,4-Dichlorophenol	ug/L	10 U [10 U]	NA	NA	NA	5.0 U	5.0 U
2,4-Dimethylphenol	ug/L	5.0 U [5.0 U]	NA	NA	NA	5.0 U	5.0 U
2,4-Dinitrophenol	ug/L	20 U [20 U]	NA	NA	NA	20 U	20 U
2,4-Dinitrotoluene	ug/L	5.0 U [5.0 U]	NA	NA	NA	5.0 U	5.0 U
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	5.0 U [5.0 U]	NA	NA	NA	5.0 U	5.0 U
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	5.0 U [5.0 U]	NA	NA	NA	5.0 U	5.0 U
2-Chlorophenol	ug/L	5.0 U [5.0 U]	NA	NA	NA	5.0 U	5.0 U
2-Methylnaphthalene	ug/L	5.0 U [5.0 U]	NA	NA	NA	5.0 U	5.0 U
2-Methylphenol	ug/L	5.0 U [5.0 U]	NA	NA	NA	5.0 U	5.0 U
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	20 U [20 U]	NA	NA	NA	20 U	20 U
2-Nitrophenol	ug/L	5.0 U [5.0 U]	NA	NA	NA	5.0 U	5.0 U
2-Picoline	ug/L	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	20 U [20 U]	NA	NA	NA	20 U	20 U
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	20 U [20 U]	NA	NA	NA	20 U	20 U
4,6-Dinitro-2-methylphenol	ug/L	20 U [20 U]	NA	NA	NA	20 U	20 U
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	5.0 U [5.0 U]	NA	NA	NA	5.0 U	5.0 U
4-Chloro-3-Methylphenol	ug/L	5.0 U [5.0 U]	NA	NA	NA	5.0 U	5.0 U
4-Chloroaniline	ug/L	10 U [10 U]	NA	NA	NA	20 U	20 U
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	5.0 U [5.0 U]	NA	NA	NA	5.0 U	5.0 U
4-Methylphenol	ug/L	5.0 U [5.0 U]	NA	NA	NA	5.0 U	5.0 U

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SAGINAW, MICHIGAN

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Semivolatile Organics (Cont'd.)							
4-Nitroaniline	ug/L	20 U [20 U]	NA	NA	NA	20 U	20 U
4-Nitrophenol	ug/L	20 U [20 U]	NA	NA	NA	20 U	20 U
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	5.0 U [5.0 U]	NA	NA	NA	5.0 U	5.0 U
Acenaphthylene	ug/L	5.0 U [5.0 U]	NA	NA	NA	5.0 U	5.0 U
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	5.0 U [5.0 U]	NA	NA	NA	5.0 U	5.0 U
Atrazine	ug/L	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	5.0 U [5.0 U]	NA	NA	NA	5.0 U	5.0 U
Benzo(a)pyrene	ug/L	5.0 U [5.0 U]	NA	NA	NA	5.0 U	5.0 U
Benzo(b)fluoranthene	ug/L	5.0 U [5.0 U]	NA	NA	NA	5.0 U	5.0 U
Benzo(g,h,i)perylene	ug/L	5.0 U [5.0 U]	NA	NA	NA	5.0 U	5.0 U
Benzo(k)fluoranthene	ug/L	5.0 U [5.0 U]	NA	NA	NA	5.0 U	5.0 U
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	5.0 U [5.0 U]	NA	NA	NA	5.0 U	5.0 U
bis(2-Chloroethyl)ether	ug/L	5.0 U [5.0 U]	NA	NA	NA	5.0 U	5.0 U
bis(2-Ethylhexyl)phthalate	ug/L	5.0 U [5.0 U]	NA	NA	NA	4.4 J	40
Butylbenzylphthalate	ug/L	5.0 U [5.0 U]	NA	NA	NA	5.0 U	5.0 U
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	10 U [10 U]	NA	NA	NA	5.0 U	5.0 U
Chrysene	ug/L	5.0 U [5.0 U]	NA	NA	NA	5.0 U	5.0 U
Diallate	ug/L	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	5.0 U [5.0 U]	NA	NA	NA	5.0 U	5.0 U
Dibenzofuran	ug/L	5.0 U [5.0 U]	NA	NA	NA	5.0 U	5.0 U
Diethylphthalate	ug/L	5.0 U [3.6 J]	NA	NA	NA	5.0 U	5.0 U
Dimethylphthalate	ug/L	5.0 U [5.0 U]	NA	NA	NA	5.0 U	5.0 U
Di-n-Butylphthalate	ug/L	5.0 U [5.0 U]	NA	NA	NA	5.0 U	5.0 U
Di-n-Octylphthalate	ug/L	5.0 U [5.0 U]	NA	NA	NA	5.0 U	5.0 U
Diphenylamine	ug/L	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	5.0 U [5.0 U]	NA	NA	NA	5.0 U	5.0 U
Fluorene	ug/L	5.0 U [5.0 U]	NA	NA	NA	5.0 U	5.0 U
Hexachlorobenzene	ug/L	5.0 U [5.0 U]	NA	NA	NA	5.0 U	5.0 U
Hexachlorobutadiene	ug/L	5.0 U [5.0 U]	NA	NA	NA	5.0 U	5.0 U
Hexachlorocyclopentadiene	ug/L	5.0 U [5.0 U]	NA	NA	NA	5.0 U	5.0 U
Hexachloroethane	ug/L	5.0 U [5.0 U]	NA	NA	NA	5.0 U	5.0 U
Hexachloropropene	ug/L	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	5.0 U [5.0 U]	NA	NA	NA	5.0 U	5.0 U

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Semivolatile Organics (Cont'd.)							
Isophorone	ug/L	5.0 U [5.0 U]	NA	NA	NA	5.0 U	5.0 U
Isosafrole	ug/L	NA	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	5.0 U [5.0 U]	NA	NA	NA	5.0 U	5.0 U
Nitrobenzene	ug/L	5.0 U [5.0 U]	NA	NA	NA	5.0 U	5.0 U
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	5.0 U [5.0 U]	NA	NA	NA	5.0 U	5.0 U
N-Nitrosodiphenylamine	ug/L	5.0 U [5.0 U]	NA	NA	NA	5.0 U	5.0 U
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	1.0 U [1.0 U]	NA	NA	NA	20 U	20 U
Phenacetin	ug/L	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	5.0 U [5.0 U]	NA	NA	NA	5.0 U	5.0 U
Phenol	ug/L	5.0 U [5.0 U]	NA	NA	NA	0.62 J	5.0 U
Pronamide	ug/L	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	5.0 U [5.0 U]	NA	NA	NA	5.0 U	5.0 U
Pyridine	ug/L	NA	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	5.0 U [5.0 U]	NA	NA	NA	5.0 U	5.0 U
PCBs							
Aroclor-1016	ug/L	0.20 U [0.20 U]	NA	0.20 U	0.20 U [0.20 U]	NA	NA
Aroclor-1221	ug/L	0.20 U [0.20 U]	NA	0.20 U	0.20 U [0.20 U]	NA	NA
Aroclor-1232	ug/L	0.40 U [0.40 U]	NA	0.20 U	0.20 U [0.20 U]	NA	NA
Aroclor-1242	ug/L	0.20 U [0.20 U]	NA	0.20 U	0.20 U [0.20 U]	NA	NA
Aroclor-1248	ug/L	0.20 U [0.20 U]	NA	0.20 U	0.17 J [0.20 U]	NA	NA
Aroclor-1254	ug/L	0.20 U [0.20 U]	NA	0.20 U	0.20 U [0.20 U]	NA	NA
Aroclor-1260	ug/L	0.20 U [0.20 U]	NA	0.20 U	0.20 U [0.20 U]	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	0.40 U [0.40 U]	NA	0.20 U	0.17 J [0.20 U]	NA	NA
PCBs-Dissolved							
Aroclor-1016 (Dissolved)	ug/L	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1221 (Dissolved)	ug/L	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1232 (Dissolved)	ug/L	0.4 U [0.4 U]	0.4 U	0.2 U	0.2 U	0.4 U	0.4 U
Aroclor-1242 (Dissolved)	ug/L	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U

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PCBs-Dissolved (Cont'd.)							
Aroclor-1248 (Dissolved)	ug/L	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1254 (Dissolved)	ug/L	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1260 (Dissolved)	ug/L	0.2 U [0.2 U]	0.2 U	0.2 U	0.06 J	0.2 U	0.2 U
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	0.4 U [0.4 U]	0.4 U	0.2 U	0.06 J	0.4 U	0.4 U
Organochlorine Pesticides							
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	NA	NA	NA	NA	0.2 U	0.2 U
Aroclor-1221	ug/L	NA	NA	NA	NA	0.2 U	0.2 U
Aroclor-1232	ug/L	NA	NA	NA	NA	0.4 U	0.4 U
Aroclor-1242	ug/L	NA	NA	NA	NA	0.2 U	0.2 U
Aroclor-1248	ug/L	NA	NA	NA	NA	0.2 U	0.2 U
Aroclor-1254	ug/L	NA	NA	NA	NA	0.2 U	0.2 U
Aroclor-1260	ug/L	NA	NA	NA	NA	0.2 U	0.2 U
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA
Organophosphate Pesticides							
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Secondary Settling Pond MW-184WT 3 - 13 08/17/00	Secondary Settling Pond MW-185WT 3 - 8 06/03/04	Secondary Settling Pond MW-185WT 3 - 8 08/25/05	Secondary Settling Pond MW-185WT 3 - 8 11/28/07	Secondary Settling Pond TW-214S1 01/27/95	Secondary Settling Pond TW-214S2 01/27/95
Organophosphate Pesticides (Cont'd.)							
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA
Herbicides							
2,4,5-T	ug/L	NA	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA	NA
Dioxins/Furans							
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Secondary Settling Pond MW-184WT 3 - 13 08/17/00	Secondary Settling Pond MW-185WT 3 - 8 06/03/04	Secondary Settling Pond MW-185WT 3 - 8 08/25/05	Secondary Settling Pond MW-185WT 3 - 8 11/28/07	Secondary Settling Pond TW-214S1 01/27/95	Secondary Settling Pond TW-214S2 01/27/95
Dioxins/Furans (Cont'd.)							
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Secondary Settling Pond TW-214WT 01/26/95	Secondary Settling Pond TW-215S1 01/27/95	Secondary Settling Pond TW-215S2 01/27/95	Secondary Settling Pond TW-215S3 01/27/95	Secondary Settling Pond TW-215WT 01/26/95	Southern Drainage Channels MW-1A 07/17/95
Volatile Organics							
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	1.0 U [1.0 U]
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	1.0 U [1.0 U]
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA	R [R]
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA	1.0 U [1.0 U]
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
1,2-Dichloroethene (total)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	R [R]
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	50 U	50 U	50 U	50 U	50 U	5.0 UJ [5.0 UJ]
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA	1.0 U [1.0 U]
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	50 U	50 U	50 U	50 U	50 U	5.0 U [5.0 U]
3-Chloropropene	ug/L	NA	NA	NA	NA	NA	2.0 U [2.0 U]
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U	50 U	50 U	50 U	50 U	5.0 U [5.0 U]
Acetone	ug/L	50 U	50 U	50 U	50 U	50 U	10 UJ [10 UJ]
Acetonitrile	ug/L	NA	NA	NA	NA	NA	10 U [10 U]
Acrolein	ug/L	NA	NA	NA	NA	NA	R [R]
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	10 U [10 U]
Benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
Bromomethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
Carbon Disulfide	ug/L	50 U	50 U	50 U	50 U	50 U	1.0 U [1.0 U]
Carbon Tetrachloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Secondary Settling Pond TW-214WT 01/26/95	Secondary Settling Pond TW-215S1 01/27/95	Secondary Settling Pond TW-215S2 01/27/95	Secondary Settling Pond TW-215S3 01/27/95	Secondary Settling Pond TW-215WT 01/26/95	Southern Drainage Channels MW-1A 07/17/95
Volatile Organics (Cont'd.)							
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
Chloroform	ug/L	1.0 U	1.0 U	1.0 U	1.9	1.0 U	1.0 U [1.0 U]
Chloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
Cyclohexane	ug/L	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
Dibromomethane	ug/L	NA	NA	NA	NA	NA	1.0 U [1.0 U]
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA	1.0 U [1.0 U]
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA	1.0 U [1.0 U]
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	1.0 U [1.0 U]
Isobutanol	ug/L	NA	NA	NA	NA	NA	R [R]
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA	1.0 U [1.0 U]
Methyl acetate	ug/L	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA	1.0 U [1.0 U]
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA	R [R]
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
Toluene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	1.0 U [1.0 U]
Trichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA	1.0 U [1.0 U]
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA	2.0 U [2.0 U]
Vinyl Chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
Total 1,3-Dichloropropenes	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
Total Xylenes	ug/L	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	1.0 U [1.0 U]

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
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Sample ID: Sample Depth (feet): Date Collected:	Units	Secondary Settling Pond TW-214WT 01/26/95	Secondary Settling Pond TW-215S1 01/27/95	Secondary Settling Pond TW-215S2 01/27/95	Secondary Settling Pond TW-215S3 01/27/95	Secondary Settling Pond TW-215WT 01/26/95	Southern Drainage Channels MW-1A 07/17/95
Semivolatile Organics							
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA	5.0 U [5.0 U]
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U [50 U]
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	R [R]
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	5.0 U [5.0 U]
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA	50 U [50 U]
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA	10 U [10 U]
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U [5.0 U]
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA	50 U [50 U]
2,4,5-Trichlorophenol	ug/L	50 U	50 U	50 U	50 U	50 U	10 U [10 U]
2,4,6-Trichlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]
2,4-Dichlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]
2,4-Dimethylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]
2,4-Dinitrophenol	ug/L	20 U	20 U	20 U	20 U	20 U	20 U [20 U]
2,4-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	5.0 U [5.0 U]
2,6-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA	100 U [100 U]
2-Chloronaphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]
2-Chlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]
2-Methylnaphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	3.0 J	5.0 U [5.0 U]
2-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA	10 U [10 U]
2-Nitroaniline	ug/L	20 U	20 U	20 U	20 U	20 U	20 U [20 U]
2-Nitrophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]
2-Picoline	ug/L	NA	NA	NA	NA	NA	20 U [20 U]
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	20 U	20 U	20 U	20 U	20 U	20 U [20 U]
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA	10 U [10 U]
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA	20 U [20 U]
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	5.0 U [5.0 U]
3-Nitroaniline	ug/L	20 U	20 U	20 U	20 U	20 U	20 U [20 U]
4,6-Dinitro-2-methylphenol	ug/L	20 U	20 U	20 U	20 U	20 U	20 U [20 U]
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA	50 U [50 U]
4-Bromophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]
4-Chloro-3-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]
4-Chloroaniline	ug/L	20 U	20 U	20 U	20 U	20 U	10 U [10 U]
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA	10 U [10 U]
4-Chlorophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]
4-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Secondary Settling Pond TW-214WT 01/26/95	Secondary Settling Pond TW-215S1 01/27/95	Secondary Settling Pond TW-215S2 01/27/95	Secondary Settling Pond TW-215S3 01/27/95	Secondary Settling Pond TW-215WT 01/26/95	Southern Drainage Channels MW-1A 07/17/95
Semivolatile Organics (Cont'd.)							
4-Nitroaniline	ug/L	20 U	20 U	20 U	20 U	20 U	20 UJ [20 UJ]
4-Nitrophenol	ug/L	20 U	20 U	20 U	20 U	20 U	20 U [20 U]
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA	100 U [100 U]
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA	100 U [100 U]
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA	20 U [20 U]
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA	20 U [20 U]
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA	50 UJ [50 UJ]
Acenaphthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]
Acenaphthylene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]
Acetophenone	ug/L	NA	NA	NA	NA	NA	10 U [10 U]
Aniline	ug/L	NA	NA	NA	NA	NA	10 U [10 U]
Anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]
Atrazine	ug/L	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]
Benzo(a)pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]
Benzo(b)fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]
Benzo(g,h,i)perylene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]
Benzo(k)fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA	10 U [10 U]
Biphenyl	ug/L	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]
bis(2-Chloroethyl)ether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]
bis(2-Ethylhexyl)phthalate	ug/L	0.60 J	3.2 J	5.0 U	1.9 J	1.7 J	5.0 U [5.0 U]
Butylbenzylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA
Chrysene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]
Diallate	ug/L	NA	NA	NA	NA	NA	5.0 U [5.0 U]
Dibenzo(a,h)anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]
Dibenzofuran	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]
Diethylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]
Dimethylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]
Di-n-Butylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]
Di-n-Octylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]
Diphenylamine	ug/L	NA	NA	NA	NA	NA	5.0 U [5.0 U]
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	10 U [10 U]
Fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]
Fluorene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]
Hexachlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]
Hexachlorobutadiene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]
Hexachlorocyclopentadiene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]
Hexachloroethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]
Hexachloropropene	ug/L	NA	NA	NA	NA	NA	100 U [100 U]
Indeno(1,2,3-cd)pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]

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SAGINAW, MICHIGAN

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Semivolatile Organics (Cont'd.)							
Isophorone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]
Isosafrole	ug/L	NA	NA	NA	NA	NA	20 U [20 U]
Methapyrilene	ug/L	NA	NA	NA	NA	NA	50 U [50 U]
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	10 U [10 U]
Naphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	2.3 J	5.0 U [5.0 U]
Nitrobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA	10 U [10 U]
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	5.0 U [5.0 U]
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA	10 U [10 U]
N-Nitroso-di-n-propylamine	ug/L	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U [5.0 U]
N-Nitrosodiphenylamine	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA	10 U [10 U]
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA	10 U [10 U]
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA	10 U [10 U]
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA	10 U [10 U]
o-Toluidine	ug/L	NA	NA	NA	NA	NA	20 U [20 U]
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA	20 U [20 U]
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA	5.0 U [5.0 U]
Pentachloroethane	ug/L	NA	NA	NA	NA	NA	10 U [10 U]
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA	50 U [50 U]
Pentachlorophenol	ug/L	20 U	20 U	20 U	20 U	20 U	25 U [25 U]
Phenacetin	ug/L	NA	NA	NA	NA	NA	20 U [20 U]
Phenanthrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	1.2 J	5.0 U [5.0 U]
Phenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]
Pronamide	ug/L	NA	NA	NA	NA	NA	20 U [20 U]
Pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]
Pyridine	ug/L	NA	NA	NA	NA	NA	10 U [10 U]
Safrole	ug/L	NA	NA	NA	NA	NA	20 U [20 U]
Total Methylphenols	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]
PCBs							
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA
PCBs-Dissolved							
Aroclor-1016 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]
Aroclor-1221 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]
Aroclor-1232 (Dissolved)	ug/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U [0.4 U]
Aroclor-1242 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]

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ORGANIC COMPOUNDS

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SAGINAW, MICHIGAN

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PCBs-Dissolved (Cont'd.)							
Aroclor-1248 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]
Aroclor-1254 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.25 U	0.2 U [0.2 U]
Aroclor-1260 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.25 U	0.2 U [0.2 U]
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U [0.4 U]
Organochlorine Pesticides							
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	0.02 U [0.02 U]
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	0.02 UJ [0.02 UJ]
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	0.02 U [0.02 U]
Aldrin	ug/L	NA	NA	NA	NA	NA	0.01 U [0.01 U]
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	0.01 U [0.01 U]
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	0.02 U [0.02 U]
Aroclor-1016	ug/L	0.2 U	0.2 UJ	0.2 U	0.2 U	0.5 UJ	0.2 U [0.2 U]
Aroclor-1221	ug/L	0.2 U	0.2 UJ	0.2 U	0.2 U	0.5 UJ	0.2 U [0.2 U]
Aroclor-1232	ug/L	0.4 U	0.4 UJ	0.4 U	0.4 U	0.5 UJ	0.4 U [0.4 U]
Aroclor-1242	ug/L	0.2 U	0.2 UJ	0.2 U	0.2 U	0.5 UJ	0.2 U [0.2 U]
Aroclor-1248	ug/L	0.2 U	0.2 UJ	0.2 U	0.2 U	0.5 UJ	0.2 U [0.2 U]
Aroclor-1254	ug/L	0.2 U	0.2 UJ	0.2 U	0.2 U	1.9 J	0.2 U [0.2 U]
Aroclor-1260	ug/L	0.2 U	0.2 UJ	0.2 U	0.2 U	1 UJ	0.2 U [0.2 U]
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	0.01 UJ [0.01 UJ]
Delta-BHC	ug/L	NA	NA	NA	NA	NA	0.01 U [0.01 U]
Dieldrin	ug/L	NA	NA	NA	NA	NA	0.02 U [0.02 U]
Endosulfan I	ug/L	NA	NA	NA	NA	NA	0.01 U [0.01 U]
Endosulfan II	ug/L	NA	NA	NA	NA	NA	0.02 U [0.02 U]
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	0.02 U [0.02 U]
Endrin	ug/L	NA	NA	NA	NA	NA	0.02 U [0.02 U]
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	0.02 UJ [0.02 UJ]
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	0.01 U [0.01 U]
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	0.02 U [0.02 U]
Heptachlor	ug/L	NA	NA	NA	NA	NA	0.01 U [0.01 U]
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	0.01 U [0.01 U]
Isodrin	ug/L	NA	NA	NA	NA	NA	0.1 UJ [0.1 UJ]
Kepone	ug/L	NA	NA	NA	NA	NA	1 UJ [1 UJ]
Methoxychlor	ug/L	NA	NA	NA	NA	NA	0.1 U [0.1 U]
Toxaphene	ug/L	NA	NA	NA	NA	NA	1 U [1 U]
Organophosphate Pesticides							
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA

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Organophosphate Pesticides (Cont'd.)							
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	1 U [1 U]
Disulfoton	ug/L	NA	NA	NA	NA	NA	1 U [1 U]
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA	1 U [1 U]
Famphur	ug/L	NA	NA	NA	NA	NA	1 U [1 U]
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA	1 U [1 U]
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA	1 U [1 U]
Phorate	ug/L	NA	NA	NA	NA	NA	1 U [1 U]
Sulfotep	ug/L	NA	NA	NA	NA	NA	1 U [1 U]
Thionazin	ug/L	NA	NA	NA	NA	NA	1 U [1 U]
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA
Herbicides							
2,4,5-T	ug/L	NA	NA	NA	NA	NA	1 U [1 U]
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	1 U [1 U]
2,4-D	ug/L	NA	NA	NA	NA	NA	4 U [4 U]
Dinoseb	ug/L	NA	NA	NA	NA	NA	0.6 UJ [0.6 UJ]
Dioxins/Furans							
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Secondary Settling Pond TW-214WT 01/26/95	Secondary Settling Pond TW-215S1 01/27/95	Secondary Settling Pond TW-215S2 01/27/95	Secondary Settling Pond TW-215S3 01/27/95	Secondary Settling Pond TW-215WT 01/26/95	Southern Drainage Channels MW-1A 07/17/95
Dioxins/Furans (Cont'd.)							
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA	0.0000017 U [0.0000026 U]
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA	0.0000037 U [0.0000037 U]
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA	0.0000027 U [0.000031]
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA	0.0000035 U [0.0000045 U]
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA	0.000012 U [0.000017 U]
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA	0.0000045 U [0.0000035 U]
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA	0.0000017 U [0.0000046 U]
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels MW-1A 06/08/96	Southern Drainage Channels MW-1B 07/15/95	Southern Drainage Channels MW-1CAUG 07/15/95	Southern Drainage Channels MW-117S1 24.2 - 29.2 06/20/95	Southern Drainage Channels MW-117S1 24.2 - 29.2 05/19/00
Volatile Organics						
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	1.0 U	1.0 U	1.0 U	NA
1,2-Dichloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethene (total)	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	1.0 U	1.0 U	1.0 U	NA
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	1.0 U	1.0 U	1.0 U	NA
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA
2-Butanone	ug/L	NA	50 UJ	50 UJ	50 U	10 U
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA
2-Hexanone	ug/L	NA	50 U	50 U	R	10 U
3-Chloropropene	ug/L	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	NA	50 U	50 U	50 U	10 U
Acetone	ug/L	NA	50 UJ	50 UJ	50 U	10 U
Acetonitrile	ug/L	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA
Benzene	ug/L	NA	1.0 U	1.0 U	1.0 U	0.60 J
Bromobenzene	ug/L	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Disulfide	ug/L	NA	50 U	50 U	0.50 J	1.0 U
Carbon Tetrachloride	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels MW-1A 06/08/96	Southern Drainage Channels MW-1B 07/15/95	Southern Drainage Channels MW-1CAUG 07/15/95	Southern Drainage Channels MW-117S1 24.2 - 29.2 06/20/95	Southern Drainage Channels MW-117S1 24.2 - 29.2 05/19/00
Volatile Organics (Cont'd.)						
Chloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	ug/L	NA	1.0 U	1.0 U	1.5	1.0 U
Chloromethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	NA	1.0 U	1.0 U	1.0 U	0.50 U
cis-1,3-Dichloropropene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U
Naphthalene	ug/L	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA
Styrene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	NA	1.0 U	1.0 U	1.0 U	0.50 U
trans-1,3-Dichloropropene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA
Trichloroethene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	NA	1.0 U	1.0 U	1.0 U	0.14 J
Total 1,3-Dichloropropenes	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U
Total Xylenes	ug/L	NA	3.0 U	3.0 U	3.0 U	1.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels MW-1A 06/08/96	Southern Drainage Channels MW-1B 07/15/95	Southern Drainage Channels MW-1CAUG 07/15/95	Southern Drainage Channels MW-117S1 24.2 - 29.2 06/20/95	Southern Drainage Channels MW-117S1 24.2 - 29.2 05/19/00
Semivolatile Organics						
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	6.0 U	5.0 U	5.0 U	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	NA	6.0 U	5.0 U	5.0 UJ	NA
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	60 U	50 U	50 U	NA
2,4,6-Trichlorophenol	ug/L	NA	6.0 U	5.0 U	5.0 U	NA
2,4-Dichlorophenol	ug/L	NA	6.0 U	5.0 U	5.0 U	NA
2,4-Dimethylphenol	ug/L	NA	6.0 U	5.0 U	5.0 U	NA
2,4-Dinitrophenol	ug/L	NA	24 U	20 U	20 U	NA
2,4-Dinitrotoluene	ug/L	NA	6.0 U	5.0 U	5.0 U	NA
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	6.0 U	5.0 U	5.0 U	NA
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	6.0 U	5.0 U	5.0 U	NA
2-Chlorophenol	ug/L	NA	6.0 U	5.0 U	0.90 J	NA
2-Methylnaphthalene	ug/L	NA	6.0 U	5.0 U	5.0 U	NA
2-Methylphenol	ug/L	NA	6.0 U	5.0 U	5.0 U	NA
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	24 U	20 U	20 U	NA
2-Nitrophenol	ug/L	NA	6.0 U	5.0 U	5.0 U	NA
2-Picoline	ug/L	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	24 U	20 U	20 U	NA
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	24 U	20 U	20 U	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	24 U	20 U	20 UJ	NA
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	6.0 U	5.0 U	5.0 U	NA
4-Chloro-3-Methylphenol	ug/L	NA	6.0 U	5.0 U	5.0 U	NA
4-Chloroaniline	ug/L	NA	24 U	20 U	20 U	NA
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	6.0 U	5.0 U	5.0 U	NA
4-Methylphenol	ug/L	NA	6.0 U	5.0 U	5.0 U	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels MW-1A 06/08/96	Southern Drainage Channels MW-1B 07/15/95	Southern Drainage Channels MW-1CAUG 07/15/95	Southern Drainage Channels MW-117S1 24.2 - 29.2 06/20/95	Southern Drainage Channels MW-117S1 24.2 - 29.2 05/19/00
Semivolatile Organics (Cont'd.)						
4-Nitroaniline	ug/L	NA	24 U	20 U	20 U	NA
4-Nitrophenol	ug/L	NA	24 UJ	20 UJ	20 U	NA
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	6.0 U	5.0 U	5.0 U	NA
Acenaphthylene	ug/L	NA	6.0 U	5.0 U	5.0 U	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	6.0 U	5.0 U	5.0 U	NA
Atrazine	ug/L	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	6.0 U	5.0 U	5.0 U	NA
Benzo(a)pyrene	ug/L	NA	6.0 U	5.0 U	5.0 U	NA
Benzo(b)fluoranthene	ug/L	NA	6.0 U	5.0 U	5.0 U	NA
Benzo(g,h,i)perylene	ug/L	NA	6.0 U	5.0 U	5.0 U	NA
Benzo(k)fluoranthene	ug/L	NA	6.0 U	5.0 U	5.0 U	NA
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	6.0 U	5.0 U	5.0 U	NA
bis(2-Chloroethyl)ether	ug/L	NA	6.0 U	5.0 U	5.0 U	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	6.0 U	5.0 U	5.0 U	NA
Butylbenzylphthalate	ug/L	NA	6.0 U	5.0 U	5.0 U	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	12 U	10 U	5.0 U	NA
Chrysene	ug/L	NA	6.0 U	5.0 U	5.0 U	NA
Diallate	ug/L	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	6.0 U	5.0 U	5.0 U	NA
Dibenzofuran	ug/L	NA	6.0 U	5.0 U	5.0 U	NA
Diethylphthalate	ug/L	NA	6.0 U	5.0 U	5.0 U	NA
Dimethylphthalate	ug/L	NA	6.0 U	5.0 U	5.0 U	NA
Di-n-Butylphthalate	ug/L	NA	6.0 U	5.0 U	0.60 J	NA
Di-n-Octylphthalate	ug/L	NA	6.0 U	5.0 U	5.0 U	NA
Diphenylamine	ug/L	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	6.0 U	5.0 U	5.0 U	NA
Fluorene	ug/L	NA	6.0 U	5.0 U	5.0 U	NA
Hexachlorobenzene	ug/L	NA	6.0 U	5.0 U	5.0 UJ	NA
Hexachlorobutadiene	ug/L	NA	6.0 U	5.0 U	5.0 U	NA
Hexachlorocyclopentadiene	ug/L	NA	6.0 U	5.0 U	5.0 U	NA
Hexachloroethane	ug/L	NA	6.0 U	5.0 U	5.0 U	NA
Hexachloropropene	ug/L	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	6.0 U	5.0 U	5.0 U	NA

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels MW-1A 06/08/96	Southern Drainage Channels MW-1B 07/15/95	Southern Drainage Channels MW-1CAUG 07/15/95	Southern Drainage Channels MW-117S1 24.2 - 29.2 06/20/95	Southern Drainage Channels MW-117S1 24.2 - 29.2 05/19/00
Semivolatile Organics (Cont'd.)						
Isophorone	ug/L	NA	6.0 U	5.0 U	5.0 U	NA
Isosafrole	ug/L	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	6.0 U	5.0 U	5.0 U	NA
Nitrobenzene	ug/L	NA	6.0 U	5.0 U	5.0 U	NA
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	6.0 U	5.0 U	5.0 U	NA
N-Nitrosodiphenylamine	ug/L	NA	6.0 U	5.0 U	5.0 U	NA
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	30 U	25 U	20 U	NA
Phenacetin	ug/L	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	6.0 U	5.0 U	5.0 U	NA
Phenol	ug/L	NA	6.0 U	5.0 U	5.0 U	NA
Pronamide	ug/L	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	6.0 U	5.0 U	5.0 U	NA
Pyridine	ug/L	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	NA	6.0 U	5.0 U	5.0 U	NA
PCBs						
Aroclor-1016	ug/L	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA
PCBs-Dissolved						
Aroclor-1016 (Dissolved)	ug/L	NA	0.2 U	0.2 UJ	0.2 U	NA
Aroclor-1221 (Dissolved)	ug/L	NA	0.2 U	0.2 UJ	0.2 U	NA
Aroclor-1232 (Dissolved)	ug/L	NA	0.4 U	0.4 UJ	0.4 U	NA
Aroclor-1242 (Dissolved)	ug/L	NA	0.2 U	0.2 UJ	0.2 U	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels MW-1A 06/08/96	Southern Drainage Channels MW-1B 07/15/95	Southern Drainage Channels MW-1CAUG 07/15/95	Southern Drainage Channels MW-117S1 24.2 - 29.2 06/20/95	Southern Drainage Channels MW-117S1 24.2 - 29.2 05/19/00
PCBs-Dissolved (Cont'd.)						
Aroclor-1248 (Dissolved)	ug/L	NA	0.2 U	0.2 UJ	0.2 U	NA
Aroclor-1254 (Dissolved)	ug/L	NA	0.2 U	0.2 UJ	0.2 U	NA
Aroclor-1260 (Dissolved)	ug/L	NA	0.2 U	0.2 UJ	0.2 U	NA
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	0.4 U	0.4 U	0.4 U	NA
Organochlorine Pesticides						
4,4'-DDD	ug/L	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	NA	0.2 U	0.2 U	0.2 U	NA
Aroclor-1221	ug/L	NA	0.2 U	0.2 U	0.2 U	NA
Aroclor-1232	ug/L	NA	0.4 U	0.4 U	0.4 U	NA
Aroclor-1242	ug/L	NA	0.2 U	0.2 U	0.2 U	NA
Aroclor-1248	ug/L	NA	0.2 U	0.2 U	0.2 U	NA
Aroclor-1254	ug/L	NA	0.2 U	0.2 U	0.2 U	NA
Aroclor-1260	ug/L	NA	0.2 U	0.2 U	0.2 U	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA
Organophosphate Pesticides						
4,4'-DDD	ug/L	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

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Organophosphate Pesticides (Cont'd.)						
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA
Herbicides						
2,4,5-T	ug/L	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA
Dioxins/Furans						
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	0.000012 U	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	0.000029 U	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	0.0000028 U	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	0.0000058 U	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	0.0000011 U	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	0.0000017 U	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	0.0000016 U	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	0.0000014 U	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	0.00000081 U	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	0.0000017 U	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	0.0000011 U	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	0.00000089 U	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	0.000002 U	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	0.000003 U	NA	NA	NA	NA

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SAGINAW, MICHIGAN

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Dioxins/Furans (Cont'd.)						
2,3,4,7,8-PeCDF	ug/L	0.0000017 U	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	0.000002 U	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	0.0000026 U	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	0.0000058 U	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	0.0000028 U	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	0.000003 U	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	0.0000017 U	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	0.000002 U	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	0.00000089 U	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	0.0000026 U	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	0.000002 U	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

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Volatile Organics						
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	1.0 U	NA	NA	NA
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	1.0 U	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	2.0 U	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	1.0 U	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	1.0 U	NA	NA	NA
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethene (total)	ug/L	1.0 U	NA	NA	NA	2.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	1.0 U	NA	NA	NA
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	1.0 U	NA	NA	NA
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA
2-Butanone	ug/L	10 U	10 U	2.0 U	2.0 UJ	25 U
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA
2-Hexanone	ug/L	10 U	10 U	2.0 U	2.0 U	50 U
3-Chloropropene	ug/L	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	5.0 U	10 U	2.0 U	2.0 U	50 U
Acetone	ug/L	10 U	10 UJ	2.0 U	2.0 UJ	25 U
Acetonitrile	ug/L	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA
Benzene	ug/L	1.0 U	0.75 J	0.58 J	0.71 J	0.66 J
Bromobenzene	ug/L	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Disulfide	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Carbon Tetrachloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

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Volatile Organics (Cont'd.)						
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	0.50 U	0.50 U	1.0 U	1.0 U	0.31 J
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	NA	1.0 U	NA	NA	NA
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	1.0 U	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	1.0 U	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	10 U	NA	NA	NA
Methyl cyclohexane	ug/L	NA	1.0 U	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	5.0 U	NA	NA	NA
Methylene Chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 UJ	5.0 U
Naphthalene	ug/L	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA
Styrene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 UJ	1.7
Trichlorofluoromethane	ug/L	NA	1.0 U	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	1.0 U	0.21 J	1.0 U	1.0 U	1.0 U
Total 1,3-Dichloropropenes	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total Xylenes	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U

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Semivolatile Organics						
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	NA	NA	NA	NA	NA
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	NA	NA	NA	NA	NA
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA
2-Picoline	ug/L	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	NA	NA
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	NA	NA	NA	NA	NA
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	NA	NA
4-Methylphenol	ug/L	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels MW-117S1 24.2 - 29.2 06/19/01	Southern Drainage Channels MW-117S1 24.2 - 29.2 06/26/02	Southern Drainage Channels MW-117S1 24.2 - 29.2 06/19/03	Southern Drainage Channels MW-117S1 24.2 - 29.2 05/27/04	Southern Drainage Channels MW-117S1 24.2 - 29.2 06/23/05
Semivolatile Organics (Cont'd.)						
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	NA	NA	NA	NA	NA
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	NA	NA	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	NA	NA	NA	NA
Diallate	ug/L	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	NA	NA	NA	NA	NA
Dimethylphthalate	ug/L	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	NA	NA	NA	NA	NA
Diphenylamine	ug/L	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	NA
Fluorene	ug/L	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA
Hexachloropropene	ug/L	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

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Semivolatile Organics (Cont'd.)						
Isophorone	ug/L	NA	NA	NA	NA	NA
Isosafrole	ug/L	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	NA	NA
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA
Phenacetin	ug/L	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	NA
Phenol	ug/L	NA	NA	NA	NA	NA
Pronamide	ug/L	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	NA
Pyridine	ug/L	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	NA	NA	NA	NA	NA
PCBs						
Aroclor-1016	ug/L	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA
PCBs-Dissolved						
Aroclor-1016 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Aroclor-1221 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Aroclor-1232 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Aroclor-1242 (Dissolved)	ug/L	NA	NA	NA	NA	NA

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PCBs-Dissolved (Cont'd.)						
Aroclor-1248 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Aroclor-1254 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Aroclor-1260 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	NA	NA	NA
Organochlorine Pesticides						
4,4'-DDD	ug/L	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA
Organophosphate Pesticides						
4,4'-DDD	ug/L	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA

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Organophosphate Pesticides (Cont'd.)						
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA
Herbicides						
2,4,5-T	ug/L	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA
Dioxins/Furans						
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA

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Dioxins/Furans (Cont'd.)						
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA

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Volatile Organics						
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	1.0 U	NA	NA	1.0 U	NA
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5.0 U	NA	NA	5.0 U	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	1.0 U	NA	NA	1.0 U	NA
1,2-Dibromoethane	ug/L	1.0 U	NA	NA	1.0 U	NA
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U
1,2-Dichloroethene (total)	ug/L	NA	1.0 U	NA	NA	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA
2-Butanone	ug/L	25 UJ	50 U	NA	25 UJ	50 U
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA
2-Hexanone	ug/L	50 UJ	R	NA	50 UJ	R
3-Chloropropene	ug/L	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U	50 U	NA	50 U	50 U
Acetone	ug/L	25 UJ	50 U	NA	25 UJ	50 U
Acetonitrile	ug/L	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA
Benzene	ug/L	0.65 J	1.0 U	NA	1.0 U	1.0 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U
Bromoform	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U
Bromomethane	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U
Carbon Disulfide	ug/L	5.0 U	0.80 J	NA	5.0 U	50 U
Carbon Tetrachloride	ug/L	1.0 UJ	1.0 U	NA	1.0 UJ	1.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U

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Volatile Organics (Cont'd.)						
Chloroethane	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U
Chloroform	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U
Chloromethane	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U
Cyclohexane	ug/L	1.0 U	NA	NA	1.0 U	NA
Dibromochloromethane	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	1.0 UJ	NA	NA	1.0 UJ	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	5.0 U	NA	NA	5.0 U	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA
Methyl acetate	ug/L	10 U	NA	NA	10 U	NA
Methyl cyclohexane	ug/L	1.0 U	NA	NA	1.0 U	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	5.0 U	NA	NA	5.0 U	NA
Methylene Chloride	ug/L	5.0 U	1.0 U	NA	5.0 U	1.0 U
Naphthalene	ug/L	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA
Styrene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U
Toluene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U
Trichlorofluoromethane	ug/L	1.0 U	NA	NA	1.0 U	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U
Total 1,3-Dichloropropenes	ug/L	1.0 U	1.0 U	NA	1.0 U	1.0 U
Total Xylenes	ug/L	2.0 U	3.0 U	NA	2.0 U	3.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels MW-117S1 24.2 - 29.2 12/13/06	Southern Drainage Channels MW-117S2 35 - 40 06/20/95	Southern Drainage Channels MW-117S2 35 - 40 05/20/00	Southern Drainage Channels MW-117S2 35 - 40 12/13/06	Southern Drainage Channels MW-117WT 3 - 13 06/20/95
Semivolatile Organics						
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	5.0 U	5.0 U	NA	5.0 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	1.0 U	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	1.0 U	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	1.0 U	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	NA	5.0 UJ	5.0 U	5.0 U [5.0 U]	5.0 U
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	50 U	5.0 U	5.0 U [5.0 U]	50 U
2,4,6-Trichlorophenol	ug/L	NA	5.0 U	5.0 U	4.0 U [4.0 U]	5.0 U
2,4-Dichlorophenol	ug/L	NA	5.0 U	10 U	10 U [10 U]	5.0 U
2,4-Dimethylphenol	ug/L	NA	0.80 J	5.0 U	5.0 U [5.0 U]	5.0 U
2,4-Dinitrophenol	ug/L	NA	20 U	20 U	20 U [20 U]	20 U
2,4-Dinitrotoluene	ug/L	NA	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
2-Chlorophenol	ug/L	NA	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
2-Methylnaphthalene	ug/L	NA	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
2-Methylphenol	ug/L	NA	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	20 U	20 U	20 U [20 U]	20 U
2-Nitrophenol	ug/L	NA	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
2-Picoline	ug/L	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	20 U	20 U	R [4.0 U]	20 U
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	20 U	20 U	20 U [20 U]	20 U
4,6-Dinitro-2-methylphenol	ug/L	NA	20 UJ	20 U	20 U [20 U]	20 U
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
4-Chloro-3-Methylphenol	ug/L	NA	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
4-Chloroaniline	ug/L	NA	20 U	10 U	10 U [10 U]	20 U
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
4-Methylphenol	ug/L	NA	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U

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Semivolatile Organics (Cont'd.)						
4-Nitroaniline	ug/L	NA	20 U	20 U	20 U [20 U]	20 U
4-Nitrophenol	ug/L	NA	20 U	20 U	20 U [20 U]	20 U
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
Acenaphthylene	ug/L	NA	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
Acetophenone	ug/L	NA	NA	NA	5.0 U [5.0 U]	NA
Aniline	ug/L	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
Atrazine	ug/L	NA	NA	NA	3.0 U [3.0 U]	NA
Benzaldehyde	ug/L	NA	NA	NA	10 U [10 U]	NA
Benzo(a)anthracene	ug/L	NA	5.0 U	5.0 U	1.0 U [1.0 U]	5.0 U
Benzo(a)pyrene	ug/L	NA	5.0 U	5.0 U	1.0 U [1.0 U]	5.0 U
Benzo(b)fluoranthene	ug/L	NA	5.0 U	5.0 U	1.0 U [1.0 U]	5.0 U
Benzo(g,h,i)perylene	ug/L	NA	5.0 U	5.0 U	1.0 U [1.0 U]	5.0 U
Benzo(k)fluoranthene	ug/L	NA	5.0 U	5.0 U	1.0 U [1.0 U]	5.0 U
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	10 U [10 U]	NA
bis(2-Chloroethoxy)methane	ug/L	NA	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
bis(2-Chloroethyl)ether	ug/L	NA	5.0 U	5.0 U	1.0 U [1.0 U]	5.0 U
bis(2-Ethylhexyl)phthalate	ug/L	NA	12 B	5.0 U	5.0 U [1.1 J]	5.0 U
Butylbenzylphthalate	ug/L	NA	1.2 J	5.0 U	5.0 U [5.0 U]	5.0 U
Caprolactam	ug/L	NA	NA	NA	1.1 J [0.67 J]	NA
Carbazole	ug/L	NA	5.0 U	10 U	10 U [10 U]	5.0 U
Chrysene	ug/L	NA	5.0 U	5.0 U	1.0 U [1.0 U]	5.0 U
Diallate	ug/L	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	5.0 U	5.0 U	2.0 U [2.0 U]	5.0 U
Dibenzofuran	ug/L	NA	5.0 U	5.0 U	4.0 U [4.0 U]	5.0 U
Diethylphthalate	ug/L	NA	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
Dimethylphthalate	ug/L	NA	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
Di-n-Butylphthalate	ug/L	NA	0.70 J	5.0 U	5.0 U [5.0 U]	5.0 U
Di-n-Octylphthalate	ug/L	NA	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
Diphenylamine	ug/L	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	5.0 U	5.0 U	1.0 U [1.0 U]	5.0 U
Fluorene	ug/L	NA	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
Hexachlorobenzene	ug/L	NA	5.0 UJ	5.0 U	0.20 U [0.20 U]	5.0 U
Hexachlorobutadiene	ug/L	NA	5.0 U	5.0 U	1.0 U [1.0 U]	5.0 U
Hexachlorocyclopentadiene	ug/L	NA	5.0 U	5.0 U	R [R]	5.0 U
Hexachloroethane	ug/L	NA	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
Hexachloropropene	ug/L	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	5.0 U	5.0 U	2.0 U [2.0 U]	5.0 U

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Semivolatile Organics (Cont'd.)						
Isophorone	ug/L	NA	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
Isosafrole	ug/L	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
Nitrobenzene	ug/L	NA	5.0 U	5.0 U	3.0 U [3.0 U]	5.0 U
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
N-Nitrosodiphenylamine	ug/L	NA	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	20 U	1.0 U	5.0 U [5.0 U]	20 UJ
Phenacetin	ug/L	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	5.0 U	5.0 U	2.0 U [2.0 U]	5.0 U
Phenol	ug/L	NA	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
Pronamide	ug/L	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
Pyridine	ug/L	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	NA	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
PCBs						
Aroclor-1016	ug/L	NA	NA	NA	0.20 U [0.20 U]	NA
Aroclor-1221	ug/L	NA	NA	NA	0.20 U [0.20 U]	NA
Aroclor-1232	ug/L	NA	NA	NA	0.20 U [0.20 U]	NA
Aroclor-1242	ug/L	NA	NA	NA	0.20 U [0.20 U]	NA
Aroclor-1248	ug/L	NA	NA	NA	0.20 U [0.20 U]	NA
Aroclor-1254	ug/L	NA	NA	NA	0.20 U [0.20 U]	NA
Aroclor-1260	ug/L	NA	NA	NA	0.20 U [0.20 U]	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	0.20 U [0.20 U]	NA
PCBs-Dissolved						
Aroclor-1016 (Dissolved)	ug/L	NA	0.2 U	NA	NA	0.2 U
Aroclor-1221 (Dissolved)	ug/L	NA	0.2 U	NA	NA	0.2 U
Aroclor-1232 (Dissolved)	ug/L	NA	0.4 U	NA	NA	0.4 U
Aroclor-1242 (Dissolved)	ug/L	NA	0.2 U	NA	NA	0.2 U

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PCBs-Dissolved (Cont'd.)						
Aroclor-1248 (Dissolved)	ug/L	NA	0.2 U	NA	NA	0.2 U
Aroclor-1254 (Dissolved)	ug/L	NA	0.2 U	NA	NA	0.2 U
Aroclor-1260 (Dissolved)	ug/L	NA	0.2 U	NA	NA	0.2 U
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	0.4 U	NA	NA	0.4 U
Organochlorine Pesticides						
4,4'-DDD	ug/L	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	NA	0.2 U	NA	NA	0.2 U
Aroclor-1221	ug/L	NA	0.2 U	NA	NA	0.2 U
Aroclor-1232	ug/L	NA	0.4 U	NA	NA	0.4 U
Aroclor-1242	ug/L	NA	0.2 U	NA	NA	0.2 U
Aroclor-1248	ug/L	NA	0.2 U	NA	NA	0.2 U
Aroclor-1254	ug/L	NA	0.2 U	NA	NA	0.2 U
Aroclor-1260	ug/L	NA	0.2 U	NA	NA	0.2 U
Aroclor-1262	ug/L	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA
Organophosphate Pesticides						
4,4'-DDD	ug/L	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA

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Organophosphate Pesticides (Cont'd.)						
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA
Herbicides						
2,4,5-T	ug/L	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA
Dioxins/Furans						
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA

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TABLE A-1
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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels MW-117S1 24.2 - 29.2 12/13/06	Southern Drainage Channels MW-117S2 35 - 40 06/20/95	Southern Drainage Channels MW-117S2 35 - 40 05/20/00	Southern Drainage Channels MW-117S2 35 - 40 12/13/06	Southern Drainage Channels MW-117WT 3 - 13 06/20/95
Dioxins/Furans (Cont'd.)						
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels MW-117WT 3 - 13 05/19/00	Southern Drainage Channels MW-117WT 3 - 13 06/18/01	Southern Drainage Channels MW-117WT 3 - 13 06/26/02	Southern Drainage Channels MW-117WT 3 - 13 06/19/03	Southern Drainage Channels MW-117WT 3 - 13 12/09/04
Volatile Organics						
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ [1.0 UJ]
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	1.0 U	NA	NA
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	1.0 U	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	2.0 U	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	1.0 U	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	1.0 U	NA	NA
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
1,2-Dichloroethene (total)	ug/L	1.0 U	1.0 U	NA	NA	2.0 U [2.0 U]
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	1.0 U	NA	NA
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	1.0 U	NA	NA
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA
2-Butanone	ug/L	10 U	10 U	10 U	2.0 U	25 U [25 U]
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA
2-Hexanone	ug/L	10 U	10 U	10 U	2.0 U	50 UJ [50 UJ]
3-Chloropropene	ug/L	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	10 U	5.0 U	10 U	2.0 U	50 U [50 U]
Acetone	ug/L	10 U	10 U	10 UJ	2.0 U	25 U [25 U]
Acetonitrile	ug/L	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA
Benzene	ug/L	0.13 J	1.0 U	0.16 J	1.0 U	0.23 J [0.25 J]
Bromobenzene	ug/L	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 UJ]
Bromomethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ [1.0 U]
Carbon Disulfide	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U [5.0 U]
Carbon Tetrachloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]

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SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels MW-117WT 3 - 13 05/19/00	Southern Drainage Channels MW-117WT 3 - 13 06/18/01	Southern Drainage Channels MW-117WT 3 - 13 06/26/02	Southern Drainage Channels MW-117WT 3 - 13 06/19/03	Southern Drainage Channels MW-117WT 3 - 13 12/09/04
Volatile Organics (Cont'd.)						
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	0.28 J [1.0 U]
Chloroform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
Chloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
cis-1,2-Dichloroethene	ug/L	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U [1.0 U]
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
Cyclohexane	ug/L	NA	NA	1.0 U	NA	NA
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ [1.0 UJ]
Dibromomethane	ug/L	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	1.0 U	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	1.0 U	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	10 U	NA	NA
Methyl cyclohexane	ug/L	NA	NA	1.0 U	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	0.38 J	NA	NA
Methylene Chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U [5.0 U]
Naphthalene	ug/L	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA
Styrene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
Toluene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
trans-1,2-Dichloroethene	ug/L	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U [1.0 U]
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
Trichlorofluoromethane	ug/L	NA	NA	1.0 U	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
Total 1,3-Dichloropropenes	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
Total Xylenes	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U [2.0 U]

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SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels MW-117WT 3 - 13 05/19/00	Southern Drainage Channels MW-117WT 3 - 13 06/18/01	Southern Drainage Channels MW-117WT 3 - 13 06/26/02	Southern Drainage Channels MW-117WT 3 - 13 06/19/03	Southern Drainage Channels MW-117WT 3 - 13 12/09/04
Semivolatile Organics						
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	NA	NA	NA	NA	NA
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	NA	NA	NA	NA	NA
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA
2-Picoline	ug/L	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	NA	NA
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	NA	NA	NA	NA	NA
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	NA	NA
4-Methylphenol	ug/L	NA	NA	NA	NA	NA

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Semivolatile Organics (Cont'd.)						
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	NA	NA	NA	NA	NA
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	NA	NA	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	NA	NA	NA	NA
Diallate	ug/L	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	NA	NA	NA	NA	NA
Dimethylphthalate	ug/L	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	NA	NA	NA	NA	NA
Diphenylamine	ug/L	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	NA
Fluorene	ug/L	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA
Hexachloropropene	ug/L	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	NA	NA

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Semivolatile Organics (Cont'd.)						
Isophorone	ug/L	NA	NA	NA	NA	NA
Isosafrole	ug/L	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	NA	NA
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA
Phenacetin	ug/L	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	NA
Phenol	ug/L	NA	NA	NA	NA	NA
Pronamide	ug/L	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	NA
Pyridine	ug/L	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	NA	NA	NA	NA	NA
PCBs						
Aroclor-1016	ug/L	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA
PCBs-Dissolved						
Aroclor-1016 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Aroclor-1221 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Aroclor-1232 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Aroclor-1242 (Dissolved)	ug/L	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels MW-117WT 3 - 13 05/19/00	Southern Drainage Channels MW-117WT 3 - 13 06/18/01	Southern Drainage Channels MW-117WT 3 - 13 06/26/02	Southern Drainage Channels MW-117WT 3 - 13 06/19/03	Southern Drainage Channels MW-117WT 3 - 13 12/09/04
PCBs-Dissolved (Cont'd.)						
Aroclor-1248 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Aroclor-1254 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Aroclor-1260 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	NA	NA	NA
Organochlorine Pesticides						
4,4'-DDD	ug/L	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA
Organophosphate Pesticides						
4,4'-DDD	ug/L	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA

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Organophosphate Pesticides (Cont'd.)						
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA
Herbicides						
2,4,5-T	ug/L	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA
Dioxins/Furans						
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA

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TABLE A-1
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SAGINAW, MICHIGAN

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Dioxins/Furans (Cont'd.)						
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels MW-117WT 3 - 13 06/23/05	Southern Drainage Channels MW-117WT 3 - 13 12/13/06	Southern Drainage Channels MW-118S1 23.5 - 28.5 06/20/95	Southern Drainage Channels MW-118S1 23.5 - 28.5 05/17/00	Southern Drainage Channels MW-118S1 23.5 - 28.5 06/19/01
Volatile Organics						
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	1.0 U	NA	NA	NA
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	5.0 U	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	1.0 U	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	1.0 U	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	1.0 U	1.0 U	NA	NA
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
1,2-Dichloroethene (total)	ug/L	2.0 U	NA	1.0 U	1.0 U [1.0 U]	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	1.0 U	1.0 U	NA	NA
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	1.0 U	1.0 U	NA	NA
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA
2-Butanone	ug/L	25 U	25 UJ	50 U	10 U [10 U]	10 U
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA
2-Hexanone	ug/L	50 U	50 UJ	R	10 U [10 U]	10 U
3-Chloropropene	ug/L	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U	50 U	50 U	10 U [10 U]	5.0 U
Acetone	ug/L	25 U	25 UJ	50 U	10 U [10 U]	10 U
Acetonitrile	ug/L	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA
Benzene	ug/L	1.0 U	1.0 U	1.0 U	0.47 J [0.46 J]	1.0 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
Bromomethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
Carbon Disulfide	ug/L	5.0 U	5.0 U	1.3	1.0 U [1.0 U]	1.0 U
Carbon Tetrachloride	ug/L	1.0 U	1.0 UJ	1.0 U	1.0 U [1.0 U]	1.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U

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SAGINAW, MICHIGAN

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Volatile Organics (Cont'd.)						
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
Chloroform	ug/L	1.0 U	1.0 U	1.1	1.0 U [1.0 U]	1.0 U
Chloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	0.50 U [0.50 U]	0.50 U
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
Cyclohexane	ug/L	NA	1.0 U	NA	NA	NA
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	1.0 UJ	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	5.0 U	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	10 U	NA	NA	NA
Methyl cyclohexane	ug/L	NA	1.0 U	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	0.20 J	NA	NA	NA
Methylene Chloride	ug/L	5.0 U	5.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
Naphthalene	ug/L	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA
Styrene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
Toluene	ug/L	1.0 U	1.0 U	0.90 J	1.0 U [1.0 U]	1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	0.50 U [0.50 U]	0.50 U
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1.1	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
Trichlorofluoromethane	ug/L	NA	1.0 U	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	1.0 U	1.0 U	1.0 U	0.33 J [0.33 J]	0.27 J
Total 1,3-Dichloropropenes	ug/L	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
Total Xylenes	ug/L	2.0 U	2.0 U	3.0 U	1.0 U [1.0 U]	1.0 U

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Semivolatile Organics						
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	5.0 U	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	NA	NA	5.0 UJ	NA	NA
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	50 U	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	5.0 U	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	5.0 U	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	5.0 U	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	20 U	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	5.0 U	NA	NA
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	NA	5.0 U	NA	NA
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	5.0 U	NA	NA
2-Chlorophenol	ug/L	NA	NA	5.0 U	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	5.0 U	NA	NA
2-Methylphenol	ug/L	NA	NA	5.0 U	NA	NA
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	20 U	NA	NA
2-Nitrophenol	ug/L	NA	NA	5.0 U	NA	NA
2-Picoline	ug/L	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	20 U	NA	NA
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	20 U	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	20 UJ	NA	NA
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	5.0 U	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	5.0 U	NA	NA
4-Chloroaniline	ug/L	NA	NA	20 U	NA	NA
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	5.0 U	NA	NA
4-Methylphenol	ug/L	NA	NA	5.0 U	NA	NA

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TABLE A-1
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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels MW-117WT 3 - 13 06/23/05	Southern Drainage Channels MW-117WT 3 - 13 12/13/06	Southern Drainage Channels MW-118S1 23.5 - 28.5 06/20/95	Southern Drainage Channels MW-118S1 23.5 - 28.5 05/17/00	Southern Drainage Channels MW-118S1 23.5 - 28.5 06/19/01
Semivolatile Organics (Cont'd.)						
4-Nitroaniline	ug/L	NA	NA	20 U	NA	NA
4-Nitrophenol	ug/L	NA	NA	20 U	NA	NA
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	5.0 U	NA	NA
Acenaphthylene	ug/L	NA	NA	5.0 U	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	5.0 U	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	NA	5.0 U	NA	NA
Benzo(a)pyrene	ug/L	NA	NA	5.0 U	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA	5.0 U	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	5.0 U	NA	NA
Benzo(k)fluoranthene	ug/L	NA	NA	5.0 U	NA	NA
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	5.0 U	NA	NA
bis(2-Chloroethyl)ether	ug/L	NA	NA	5.0 U	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	5.0 U	NA	NA
Butylbenzylphthalate	ug/L	NA	NA	0.80 J	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	5.0 U	NA	NA
Chrysene	ug/L	NA	NA	5.0 U	NA	NA
Diallate	ug/L	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	5.0 U	NA	NA
Dibenzofuran	ug/L	NA	NA	5.0 U	NA	NA
Diethylphthalate	ug/L	NA	NA	5.0 U	NA	NA
Dimethylphthalate	ug/L	NA	NA	5.0 U	NA	NA
Di-n-Butylphthalate	ug/L	NA	NA	5.0 U	NA	NA
Di-n-Octylphthalate	ug/L	NA	NA	5.0 U	NA	NA
Diphenylamine	ug/L	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	5.0 U	NA	NA
Fluorene	ug/L	NA	NA	5.0 U	NA	NA
Hexachlorobenzene	ug/L	NA	NA	5.0 UJ	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	5.0 U	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	5.0 U	NA	NA
Hexachloroethane	ug/L	NA	NA	5.0 U	NA	NA
Hexachloropropene	ug/L	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	5.0 U	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels MW-117WT 3 - 13 06/23/05	Southern Drainage Channels MW-117WT 3 - 13 12/13/06	Southern Drainage Channels MW-118S1 23.5 - 28.5 06/20/95	Southern Drainage Channels MW-118S1 23.5 - 28.5 05/17/00	Southern Drainage Channels MW-118S1 23.5 - 28.5 06/19/01
Semivolatile Organics (Cont'd.)						
Isophorone	ug/L	NA	NA	5.0 U	NA	NA
Isosafrole	ug/L	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	5.0 U	NA	NA
Nitrobenzene	ug/L	NA	NA	5.0 U	NA	NA
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	5.0 U	NA	NA
N-Nitrosodiphenylamine	ug/L	NA	NA	5.0 U	NA	NA
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	20 U	NA	NA
Phenacetin	ug/L	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	5.0 U	NA	NA
Phenol	ug/L	NA	NA	5.0 U	NA	NA
Pronamide	ug/L	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	5.0 U	NA	NA
Pyridine	ug/L	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	NA	NA	5.0 U	NA	NA
PCBs						
Aroclor-1016	ug/L	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA
PCBs-Dissolved						
Aroclor-1016 (Dissolved)	ug/L	NA	NA	0.2 U	NA	NA
Aroclor-1221 (Dissolved)	ug/L	NA	NA	0.2 U	NA	NA
Aroclor-1232 (Dissolved)	ug/L	NA	NA	0.4 U	NA	NA
Aroclor-1242 (Dissolved)	ug/L	NA	NA	0.2 U	NA	NA

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PCBs-Dissolved (Cont'd.)						
Aroclor-1248 (Dissolved)	ug/L	NA	NA	0.2 U	NA	NA
Aroclor-1254 (Dissolved)	ug/L	NA	NA	0.2 U	NA	NA
Aroclor-1260 (Dissolved)	ug/L	NA	NA	0.2 U	NA	NA
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	0.4 U	NA	NA
Organochlorine Pesticides						
4,4'-DDD	ug/L	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	NA	NA	0.2 U	NA	NA
Aroclor-1221	ug/L	NA	NA	0.2 U	NA	NA
Aroclor-1232	ug/L	NA	NA	0.4 U	NA	NA
Aroclor-1242	ug/L	NA	NA	0.2 U	NA	NA
Aroclor-1248	ug/L	NA	NA	0.2 U	NA	NA
Aroclor-1254	ug/L	NA	NA	0.2 U	NA	NA
Aroclor-1260	ug/L	NA	NA	0.2 U	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA
Organophosphate Pesticides						
4,4'-DDD	ug/L	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA

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Organophosphate Pesticides (Cont'd.)						
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA
Herbicides						
2,4,5-T	ug/L	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA
Dioxins/Furans						
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA

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TABLE A-1
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SAGINAW, MICHIGAN

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Dioxins/Furans (Cont'd.)						
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA

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TABLE A-1
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ORGANIC COMPOUNDS

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels MW-118S1 23.5 - 28.5 06/27/02	Southern Drainage Channels MW-118S1 23.5 - 28.5 06/19/03	Southern Drainage Channels MW-118S1 23.5 - 28.5 12/09/04	Southern Drainage Channels MW-118S1 23.5 - 28.5 06/23/05	Southern Drainage Channels MW-118S1 23.5 - 28.5 12/14/06
Volatile Organics						
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	1.0 U	NA	NA	NA	1.0 U
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	1.0 U	NA	NA	NA	5.0 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	2.0 U	NA	NA	NA	1.0 U
1,2-Dibromoethane	ug/L	1.0 U	NA	NA	NA	1.0 U
1,2-Dichlorobenzene	ug/L	1.0 U	NA	NA	NA	1.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethene (total)	ug/L	NA	NA	2.0 U	2.0 U	NA
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1.0 U	NA	NA	NA	1.0 U
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	1.0 U	NA	NA	NA	1.0 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA
2-Butanone	ug/L	10 UJ	2.0 U	25 U	25 U	25 U
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA
2-Hexanone	ug/L	10 U	2.0 U	50 UJ	50 U	50 U
3-Chloropropene	ug/L	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	10 U	2.0 U	50 U	50 U	50 U
Acetone	ug/L	10 U	2.0 U	25 U	25 U	25 UJ
Acetonitrile	ug/L	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA
Benzene	ug/L	0.37 J	1.0 U	0.53 J	1.0 U	1.0 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U
Bromomethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Disulfide	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U
Carbon Tetrachloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

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TABLE A-1
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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

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Volatile Organics (Cont'd.)						
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	0.50 U	1.0 U	NA	0.25 J	1.0 U
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	1.0 U	NA	NA	NA	1.0 U
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	1.0 U	NA	NA	NA	1.0 UJ
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	1.0 U	NA	NA	NA	5.0 U
m&p-Xylene	ug/L	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA
Methyl acetate	ug/L	10 U	NA	NA	NA	10 U
Methyl cyclohexane	ug/L	1.0 U	NA	NA	NA	1.0 U
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	5.0 U	NA	NA	NA	5.0 U
Methylene Chloride	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U
Naphthalene	ug/L	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA
Styrene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	0.50 U	1.0 U	NA	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.1	1.0 U
Trichlorofluoromethane	ug/L	1.0 U	NA	NA	NA	1.0 U
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	0.27 J	1.0 U	0.26 J	1.0 U	0.23 J
Total 1,3-Dichloropropenes	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total Xylenes	ug/L	1.0 U	1.0 U	2.0 U	2.0 U	2.0 U

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GENERAL MOTORS CORPORATION
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SAGINAW, MICHIGAN

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Semivolatile Organics						
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	NA	NA	NA	NA	NA
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	NA	NA	NA	NA	NA
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA
2-Picoline	ug/L	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	NA	NA
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	NA	NA	NA	NA	NA
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	NA	NA
4-Methylphenol	ug/L	NA	NA	NA	NA	NA

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Semivolatile Organics (Cont'd.)						
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	NA	NA	NA	NA	NA
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	NA	NA	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	NA	NA	NA	NA
Diallate	ug/L	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	NA	NA	NA	NA	NA
Dimethylphthalate	ug/L	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	NA	NA	NA	NA	NA
Diphenylamine	ug/L	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	NA
Fluorene	ug/L	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA
Hexachloropropene	ug/L	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	NA	NA

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Semivolatile Organics (Cont'd.)						
Isophorone	ug/L	NA	NA	NA	NA	NA
Isosafrole	ug/L	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	NA	NA
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA
Phenacetin	ug/L	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	NA
Phenol	ug/L	NA	NA	NA	NA	NA
Pronamide	ug/L	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	NA
Pyridine	ug/L	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	NA	NA	NA	NA	NA
PCBs						
Aroclor-1016	ug/L	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA
PCBs-Dissolved						
Aroclor-1016 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Aroclor-1221 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Aroclor-1232 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Aroclor-1242 (Dissolved)	ug/L	NA	NA	NA	NA	NA

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PCBs-Dissolved (Cont'd.)						
Aroclor-1248 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Aroclor-1254 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Aroclor-1260 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	NA	NA	NA
Organochlorine Pesticides						
4,4'-DDD	ug/L	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA
Organophosphate Pesticides						
4,4'-DDD	ug/L	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA

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Organophosphate Pesticides (Cont'd.)						
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA
Herbicides						
2,4,5-T	ug/L	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA
Dioxins/Furans						
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels MW-118S1 23.5 - 28.5 06/27/02	Southern Drainage Channels MW-118S1 23.5 - 28.5 06/19/03	Southern Drainage Channels MW-118S1 23.5 - 28.5 12/09/04	Southern Drainage Channels MW-118S1 23.5 - 28.5 06/23/05	Southern Drainage Channels MW-118S1 23.5 - 28.5 12/14/06
Dioxins/Furans (Cont'd.)						
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels MW-118S2 38.5 - 43.5 06/20/95	Southern Drainage Channels MW-118S2 38.5 - 43.5 12/14/06	Southern Drainage Channels MW-118WT 1.6 - 11.6 06/20/95	Southern Drainage Channels MW-118WT 1.6 - 11.6 05/17/00	Southern Drainage Channels MW-118WT 1.6 - 11.6 06/19/01
Volatile Organics						
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	4.0 U [4.0 U]
1,1,2,2-Tetrachloroethane	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	4.0 U [4.0 U]
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	1.0 U	NA	NA	NA
1,1,2-Trichloroethane	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	4.0 U [4.0 U]
1,1-Dichloroethane	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	4.0 U [4.0 U]
1,1-Dichloroethene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	4.0 U [4.0 U]
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	5.0 U	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	1.0 U	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	1.0 U	NA	NA	NA
1,2-Dichlorobenzene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	NA	NA
1,2-Dichloroethane	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	4.0 U [4.0 U]
1,2-Dichloroethene (total)	ug/L	1.0 U [1.0 U]	NA	1.0 U	1.0 U	4.0 U [4.0 U]
1,2-Dichloropropane	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	4.0 U [4.0 U]
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	NA	NA
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	NA	NA
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA
2-Butanone	ug/L	50 U [50 U]	25 U	50 U	10 U	40 U [40 U]
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA
2-Hexanone	ug/L	R [R]	50 U	R	10 U	40 U [40 U]
3-Chloropropene	ug/L	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U [50 U]	50 U	50 U	28	180 [180]
Acetone	ug/L	3.0 J [50 U]	25 UJ	50 U	10 U	40 U [40 U]
Acetonitrile	ug/L	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA
Benzene	ug/L	0.60 J [1.0 U]	1.0 U	1.0 U	0.54 J	4.0 U [4.0 U]
Bromobenzene	ug/L	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	0.70 J [1.0 U]	1.0 U	1.0 U	1.0 U	4.0 U [4.0 U]
Bromoform	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	4.0 U [4.0 U]
Bromomethane	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	4.0 U [4.0 U]
Carbon Disulfide	ug/L	6.0 J [2.0]	5.0 U	50 U	1.0 U	4.0 U [4.0 U]
Carbon Tetrachloride	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	4.0 U [4.0 U]
Chlorobenzene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	4.0 U [4.0 U]

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels MW-118S2 38.5 - 43.5 06/20/95	Southern Drainage Channels MW-118S2 38.5 - 43.5 12/14/06	Southern Drainage Channels MW-118WT 1.6 - 11.6 06/20/95	Southern Drainage Channels MW-118WT 1.6 - 11.6 05/17/00	Southern Drainage Channels MW-118WT 1.6 - 11.6 06/19/01
Volatile Organics (Cont'd.)						
Chloroethane	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	4.0 U [4.0 U]
Chloroform	ug/L	3.7 [1.2]	1.0 U	1.0 U	1.0 U	4.0 U [4.0 U]
Chloromethane	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	4.0 U [4.0 U]
cis-1,2-Dichloroethene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	0.50 U	2.0 U [2.0 U]
cis-1,3-Dichloropropene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	4.0 U [4.0 U]
Cyclohexane	ug/L	NA	1.0 U	NA	NA	NA
Dibromochloromethane	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	4.0 U [4.0 U]
Dibromomethane	ug/L	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	1.0 UJ	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	0.10 J	4.0 U [4.0 U]
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	5.0 U	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	10 U	NA	NA	NA
Methyl cyclohexane	ug/L	NA	1.0 U	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	5.0 U	NA	NA	NA
Methylene Chloride	ug/L	1.0 U [1.0 U]	5.0 U	1.0 U	1.0 U	4.0 U [4.0 U]
Naphthalene	ug/L	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA
Styrene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	4.0 U [4.0 U]
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	4.0 U [4.0 U]
Toluene	ug/L	0.70 J [1.0 U]	1.0 U	1.0 U	1.0 U	4.0 U [4.0 U]
trans-1,2-Dichloroethene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	0.50 U	2.0 U [2.0 U]
trans-1,3-Dichloropropene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	4.0 U [4.0 U]
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	4.0 U [4.0 U]
Trichlorofluoromethane	ug/L	NA	1.0 U	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	4.0 U [4.0 U]
Total 1,3-Dichloropropenes	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	4.0 U [4.0 U]
Total Xylenes	ug/L	3.0 U [3.0 U]	2.0 U	3.0 U	0.47 J	4.0 U [4.0 U]

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels MW-118S2 38.5 - 43.5 06/20/95	Southern Drainage Channels MW-118S2 38.5 - 43.5 12/14/06	Southern Drainage Channels MW-118WT 1.6 - 11.6 06/20/95	Southern Drainage Channels MW-118WT 1.6 - 11.6 05/17/00	Southern Drainage Channels MW-118WT 1.6 - 11.6 06/19/01
Semivolatile Organics						
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5.0 U [5.0 U]	NA	5.0 U	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	NA	NA
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	50 U [50 U]	5.0 U	50 U	NA	NA
2,4,6-Trichlorophenol	ug/L	5.0 U [5.0 U]	4.0 U	5.0 U	NA	NA
2,4-Dichlorophenol	ug/L	5.0 U [5.0 U]	10 U	5.0 U	NA	NA
2,4-Dimethylphenol	ug/L	5.0 U [5.0 U]	5.0 U	1.7 J	NA	NA
2,4-Dinitrophenol	ug/L	20 U [20 U]	20 U	20 U	NA	NA
2,4-Dinitrotoluene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	NA	NA
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	NA	NA
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	NA	NA
2-Chlorophenol	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	NA	NA
2-Methylnaphthalene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	NA	NA
2-Methylphenol	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	NA	NA
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	20 U [20 U]	20 U	20 U	NA	NA
2-Nitrophenol	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	NA	NA
2-Picoline	ug/L	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	20 U [20 U]	4.0 U	20 U	NA	NA
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	20 U [20 U]	20 U	20 U	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	20 U [20 U]	20 U	20 U	NA	NA
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	NA	NA
4-Chloro-3-Methylphenol	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	NA	NA
4-Chloroaniline	ug/L	20 U [20 U]	10 U	20 U	NA	NA
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	NA	NA
4-Methylphenol	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	NA	NA

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels MW-118S2 38.5 - 43.5 06/20/95	Southern Drainage Channels MW-118S2 38.5 - 43.5 12/14/06	Southern Drainage Channels MW-118WT 1.6 - 11.6 06/20/95	Southern Drainage Channels MW-118WT 1.6 - 11.6 05/17/00	Southern Drainage Channels MW-118WT 1.6 - 11.6 06/19/01
Semivolatile Organics (Cont'd.)						
4-Nitroaniline	ug/L	20 U [20 U]	20 U	20 U	NA	NA
4-Nitrophenol	ug/L	20 U [20 U]	20 U	20 U	NA	NA
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA
Acenaphthene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	NA	NA
Acenaphthylene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	NA	NA
Acetophenone	ug/L	NA	5.0 U	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA
Anthracene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	NA	NA
Atrazine	ug/L	NA	3.0 U	NA	NA	NA
Benzaldehyde	ug/L	NA	10 U	NA	NA	NA
Benzo(a)anthracene	ug/L	5.0 U [5.0 U]	1.0 U	5.0 U	NA	NA
Benzo(a)pyrene	ug/L	5.0 U [5.0 U]	1.0 U	5.0 U	NA	NA
Benzo(b)fluoranthene	ug/L	5.0 U [5.0 U]	1.0 U	5.0 U	NA	NA
Benzo(g,h,i)perylene	ug/L	5.0 U [5.0 U]	1.0 U	5.0 U	NA	NA
Benzo(k)fluoranthene	ug/L	5.0 U [5.0 U]	1.0 U	5.0 U	NA	NA
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	10 U	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	NA	NA
bis(2-Chloroethyl)ether	ug/L	5.0 U [5.0 U]	1.0 U	5.0 U	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	NA	NA
Butylbenzylphthalate	ug/L	5.0 U [5.0 U]	5.0 UJ	5.0 U	NA	NA
Caprolactam	ug/L	NA	10 U	NA	NA	NA
Carbazole	ug/L	5.0 U [5.0 U]	10 U	5.0 U	NA	NA
Chrysene	ug/L	5.0 U [5.0 U]	1.0 U	5.0 U	NA	NA
Diallate	ug/L	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	5.0 U [5.0 U]	2.0 U	5.0 U	NA	NA
Dibenzofuran	ug/L	5.0 U [5.0 U]	4.0 U	5.0 U	NA	NA
Diethylphthalate	ug/L	5.0 U [5.0 U]	R	5.0 U	NA	NA
Dimethylphthalate	ug/L	5.0 U [5.0 U]	R	5.0 U	NA	NA
Di-n-Butylphthalate	ug/L	5.0 U [5.0 U]	5.0 UJ	5.0 U	NA	NA
Di-n-Octylphthalate	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	NA	NA
Diphenylamine	ug/L	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA
Fluoranthene	ug/L	5.0 U [5.0 U]	1.0 U	5.0 U	NA	NA
Fluorene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	NA	NA
Hexachlorobenzene	ug/L	5.0 U [5.0 U]	0.20 U	5.0 U	NA	NA
Hexachlorobutadiene	ug/L	5.0 U [5.0 U]	1.0 U	5.0 U	NA	NA
Hexachlorocyclopentadiene	ug/L	5.0 U [5.0 U]	R	5.0 U	NA	NA
Hexachloroethane	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	NA	NA
Hexachloropropene	ug/L	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	5.0 U [5.0 U]	2.0 U	5.0 U	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels MW-118S2 38.5 - 43.5 06/20/95	Southern Drainage Channels MW-118S2 38.5 - 43.5 12/14/06	Southern Drainage Channels MW-118WT 1.6 - 11.6 06/20/95	Southern Drainage Channels MW-118WT 1.6 - 11.6 05/17/00	Southern Drainage Channels MW-118WT 1.6 - 11.6 06/19/01
Semivolatile Organics (Cont'd.)						
Isophorone	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	NA	NA
Isosafrole	ug/L	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA
Naphthalene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	NA	NA
Nitrobenzene	ug/L	5.0 U [5.0 U]	3.0 U	5.0 U	NA	NA
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	NA	NA
N-Nitrosodiphenylamine	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	NA	NA
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	20 UJ [20 U]	5.0 U	20 U	NA	NA
Phenacetin	ug/L	NA	NA	NA	NA	NA
Phenanthrene	ug/L	5.0 U [5.0 U]	2.0 U	5.0 U	NA	NA
Phenol	ug/L	5.0 U [5.0 U]	5.0 U	18 B	NA	NA
Pronamide	ug/L	NA	NA	NA	NA	NA
Pyrene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	NA	NA
Pyridine	ug/L	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	NA	NA
PCBs						
Aroclor-1016	ug/L	NA	0.20 U	NA	NA	NA
Aroclor-1221	ug/L	NA	0.20 U	NA	NA	NA
Aroclor-1232	ug/L	NA	0.20 U	NA	NA	NA
Aroclor-1242	ug/L	NA	0.20 U	NA	NA	NA
Aroclor-1248	ug/L	NA	0.20 U	NA	NA	NA
Aroclor-1254	ug/L	NA	0.20 U	NA	NA	NA
Aroclor-1260	ug/L	NA	0.20 U	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	0.20 U	NA	NA	NA
PCBs-Dissolved						
Aroclor-1016 (Dissolved)	ug/L	0.2 U [0.2 U]	NA	0.2 U	NA	NA
Aroclor-1221 (Dissolved)	ug/L	0.2 U [0.2 U]	NA	0.2 U	NA	NA
Aroclor-1232 (Dissolved)	ug/L	0.4 U [0.4 U]	NA	0.4 U	NA	NA
Aroclor-1242 (Dissolved)	ug/L	0.2 U [0.2 U]	NA	0.2 U	NA	NA

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels MW-118S2 38.5 - 43.5 06/20/95	Southern Drainage Channels MW-118S2 38.5 - 43.5 12/14/06	Southern Drainage Channels MW-118WT 1.6 - 11.6 06/20/95	Southern Drainage Channels MW-118WT 1.6 - 11.6 05/17/00	Southern Drainage Channels MW-118WT 1.6 - 11.6 06/19/01
PCBs-Dissolved (Cont'd.)						
Aroclor-1248 (Dissolved)	ug/L	0.2 U [0.2 U]	NA	0.2 U	NA	NA
Aroclor-1254 (Dissolved)	ug/L	0.2 U [0.2 U]	NA	0.2 U	NA	NA
Aroclor-1260 (Dissolved)	ug/L	0.2 U [0.2 U]	NA	0.2 U	NA	NA
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	0.4 U [0.4 U]	NA	0.4 U	NA	NA
Organochlorine Pesticides						
4,4'-DDD	ug/L	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	0.2 U [0.2 U]	NA	0.2 U	NA	NA
Aroclor-1221	ug/L	0.2 U [0.2 U]	NA	0.2 U	NA	NA
Aroclor-1232	ug/L	0.4 U [0.4 U]	NA	0.4 U	NA	NA
Aroclor-1242	ug/L	0.2 U [0.2 U]	NA	0.2 U	NA	NA
Aroclor-1248	ug/L	0.2 U [0.2 U]	NA	0.2 U	NA	NA
Aroclor-1254	ug/L	0.2 U [0.2 U]	NA	0.2 U	NA	NA
Aroclor-1260	ug/L	0.2 U [0.2 U]	NA	0.2 U	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA
Organophosphate Pesticides						
4,4'-DDD	ug/L	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

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Organophosphate Pesticides (Cont'd.)						
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA
Herbicides						
2,4,5-T	ug/L	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA
Dioxins/Furans						
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

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Dioxins/Furans (Cont'd.)						
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA

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Volatile Organics						
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	2.0 U [1.0 U]	1.0 U [1.0 U]	1.7 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	2.0 U [1.0 U]	1.0 U [1.0 U]	1.7 U	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	2.0 U [1.0 U]	NA	NA	NA	1.0 U
1,1,2-Trichloroethane	ug/L	2.0 U [1.0 U]	1.0 U [1.0 U]	1.7 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	2.0 U [1.0 U]	1.0 U [1.0 U]	1.7 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	2.0 U [1.0 U]	1.0 U [1.0 U]	1.7 U	1.0 U	1.0 U
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	2.0 U [1.0 U]	NA	NA	NA	5.0 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	4.0 UJ [2.0 U]	NA	NA	NA	1.0 U
1,2-Dibromoethane	ug/L	2.0 U [1.0 U]	NA	NA	NA	1.0 U
1,2-Dichlorobenzene	ug/L	2.0 U [1.0 U]	NA	NA	NA	1.0 U
1,2-Dichloroethane	ug/L	2.0 U [1.0 U]	1.0 U [1.0 U]	1.7 U	1.0 U	1.0 U
1,2-Dichloroethene (total)	ug/L	NA	NA	NA	2.0 U	NA
1,2-Dichloropropane	ug/L	2.0 U [1.0 U]	1.0 U [1.0 U]	1.7 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	2.0 U [1.0 U]	NA	NA	NA	1.0 U
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	2.0 U [1.0 U]	NA	NA	NA	1.0 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA
2-Butanone	ug/L	20 UJ [10 UJ]	2.0 U [2.0 U]	3.3 U	25 U	2.1 J
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA
2-Hexanone	ug/L	20 UJ [10 U]	2.0 U [2.0 U]	3.3 UJ	50 U	50 U
3-Chloropropene	ug/L	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	4.9 J [5.2 J]	0.75 J [0.60 J]	3.3 UJ	50 U	50 U
Acetone	ug/L	20 UJ [10 U]	2.0 U [2.0 U]	3.3 UJ	25 U	25 UJ
Acetonitrile	ug/L	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA
Benzene	ug/L	0.34 J [1.0 U]	1.0 U [1.0 U]	1.7 U	1.0 U	1.0 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	2.0 U [1.0 U]	1.0 U [1.0 U]	1.7 U	1.0 U	1.0 U
Bromoform	ug/L	2.0 U [1.0 U]	1.0 U [1.0 U]	1.7 U	1.0 U	1.0 U
Bromomethane	ug/L	2.0 U [1.0 U]	1.0 U [1.0 U]	1.7 U	1.0 U	1.0 U
Carbon Disulfide	ug/L	2.0 U [1.0 U]	1.0 U [1.0 U]	1.7 U	5.0 U	5.0 U
Carbon Tetrachloride	ug/L	2.0 U [1.0 U]	1.0 U [1.0 U]	1.7 U	1.0 U	1.0 U
Chlorobenzene	ug/L	2.0 U [1.0 U]	1.0 U [1.0 U]	1.7 U	1.0 U	1.0 U

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Volatile Organics (Cont'd.)						
Chloroethane	ug/L	2.0 U [1.0 U]	1.0 U [1.0 U]	1.7 U	1.0 U	1.0 U
Chloroform	ug/L	2.0 U [1.0 U]	1.0 U [1.0 U]	1.7 U	1.0 U	1.0 U
Chloromethane	ug/L	2.0 U [1.0 U]	1.0 U [1.0 U]	1.7 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U [0.50 U]	1.0 U [1.0 U]	1.7 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	2.0 U [1.0 U]	1.0 U [1.0 U]	1.7 U	1.0 U	1.0 U
Cyclohexane	ug/L	2.0 U [1.0 U]	NA	NA	NA	1.0 U
Dibromochloromethane	ug/L	2.0 U [1.0 U]	1.0 U [1.0 U]	1.7 U	1.0 U	1.0 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	2.0 U [1.0 U]	NA	NA	NA	1.0 UJ
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	2.0 U [1.0 U]	1.0 U [1.0 U]	1.7 U	1.0 U	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	2.0 U [1.0 U]	NA	NA	NA	0.62 J
m&p-Xylene	ug/L	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA
Methyl acetate	ug/L	20 U [10 U]	NA	NA	NA	10 U
Methyl cyclohexane	ug/L	2.0 U [1.0 U]	NA	NA	NA	1.0 U
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	0.49 J [5.0 U]	NA	NA	NA	0.31 J
Methylene Chloride	ug/L	2.0 U [1.0 U]	1.0 U [1.0 U]	1.7 UJ	5.0 U	5.0 U
Naphthalene	ug/L	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA
Styrene	ug/L	2.0 U [1.0 U]	1.0 U [1.0 U]	1.7 U	1.0 U	1.0 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	2.0 U [1.0 U]	1.0 U [1.0 U]	1.7 U	1.0 U	1.0 U
Toluene	ug/L	2.0 U [1.0 U]	1.0 U [1.0 U]	1.7 U	0.20 J	1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U [0.50 U]	1.0 U [1.0 U]	1.7 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	2.0 U [1.0 U]	1.0 U [1.0 U]	1.7 U	1.0 U	1.0 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA
Trichloroethene	ug/L	2.0 U [1.0 U]	1.0 U [1.0 U]	1.7 U	0.57 J	1.0 U
Trichlorofluoromethane	ug/L	2.0 U [1.0 U]	NA	NA	NA	1.0 U
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	2.0 U [1.0 U]	1.0 U [1.0 U]	1.7 U	1.0 U	1.0 U
Total 1,3-Dichloropropenes	ug/L	2.0 U [1.0 U]	1.0 U [1.0 U]	1.7 U	1.0 U	1.0 U
Total Xylenes	ug/L	2.0 U [1.0 U]	1.0 U [1.0 U]	1.7 U	2.0 U	0.58 J

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels MW-118WT 1.6 - 11.6 06/27/02	Southern Drainage Channels MW-118WT 1.6 - 11.6 06/19/03	Southern Drainage Channels MW-118WT 1.6 - 11.6 05/27/04	Southern Drainage Channels MW-118WT 1.6 - 11.6 06/23/05	Southern Drainage Channels MW-118WT 1.6 - 11.6 12/14/06
Semivolatile Organics						
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	NA	NA	NA	NA	NA
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	NA	NA	NA	NA	NA
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA
2-Picoline	ug/L	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	NA	NA
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	NA	NA	NA	NA	NA
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	NA	NA
4-Methylphenol	ug/L	NA	NA	NA	NA	NA

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Semivolatile Organics (Cont'd.)						
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	NA	NA	NA	NA	NA
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	NA	NA	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	NA	NA	NA	NA
Diallate	ug/L	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	NA	NA	NA	NA	NA
Dimethylphthalate	ug/L	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	NA	NA	NA	NA	NA
Diphenylamine	ug/L	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	NA
Fluorene	ug/L	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA
Hexachloropropene	ug/L	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	NA	NA

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Semivolatile Organics (Cont'd.)						
Isophorone	ug/L	NA	NA	NA	NA	NA
Isosafrole	ug/L	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	NA	NA
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA
Phenacetin	ug/L	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	NA
Phenol	ug/L	NA	NA	NA	NA	NA
Pronamide	ug/L	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	NA
Pyridine	ug/L	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	NA	NA	NA	NA	NA
PCBs						
Aroclor-1016	ug/L	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA
PCBs-Dissolved						
Aroclor-1016 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Aroclor-1221 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Aroclor-1232 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Aroclor-1242 (Dissolved)	ug/L	NA	NA	NA	NA	NA

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PCBs-Dissolved (Cont'd.)						
Aroclor-1248 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Aroclor-1254 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Aroclor-1260 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	NA	NA	NA
Organochlorine Pesticides						
4,4'-DDD	ug/L	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA
Organophosphate Pesticides						
4,4'-DDD	ug/L	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA

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Organophosphate Pesticides (Cont'd.)						
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA
Herbicides						
2,4,5-T	ug/L	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA
Dioxins/Furans						
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA

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Dioxins/Furans (Cont'd.)						
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels TW-216S1 05/10/95	Southern Drainage Channels TW-216S2 05/11/95	Southern Drainage Channels TW-216WT 05/10/95	Southern Drainage Channels TW-217S2 05/10/95	Southern Drainage Channels TW-217WT 05/09/95
Volatile Organics						
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	2.0 U	NA	1.0 U	NA	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	2.0 U	NA	1.0 U	NA	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	2.0 U	NA	1.0 U	NA	1.0 U
1,1-Dichloroethane	ug/L	2.0 U	NA	1.0 U	NA	1.0 U
1,1-Dichloroethene	ug/L	2.0 U	NA	1.0 U	NA	1.0 U
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	2.0 U	NA	1.0 U	NA	1.0 U
1,2-Dichloroethane	ug/L	2.0 U	NA	1.0 U	NA	1.0 U
1,2-Dichloroethene (total)	ug/L	2.0 U	NA	1.0 U	NA	1.0 U
1,2-Dichloropropane	ug/L	2.0 U	NA	1.0 U	NA	1.0 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	2.0 U	NA	1.0 U	NA	1.0 U
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	2.0 U	NA	1.0 U	NA	1.0 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA
2-Butanone	ug/L	42 J	NA	50 UJ	NA	50 U
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA
2-Hexanone	ug/L	100 U	NA	R	NA	50 U
3-Chloropropene	ug/L	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	100 U	NA	50 U	NA	50 U
Acetone	ug/L	100 U	NA	50 UJ	NA	50 U
Acetonitrile	ug/L	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA
Benzene	ug/L	2.0 U	NA	1.0 U	NA	1.0 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	3.4	NA	1.0 U	NA	1.0 U
Bromoform	ug/L	2.0 U	NA	1.0 U	NA	1.0 U
Bromomethane	ug/L	2.0 U	NA	1.0 U	NA	1.0 U
Carbon Disulfide	ug/L	100 U	NA	50 U	NA	50 U
Carbon Tetrachloride	ug/L	2.0 U	NA	1.0 U	NA	1.0 U
Chlorobenzene	ug/L	2.0 U	NA	1.0 U	NA	1.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels TW-216S1 05/10/95	Southern Drainage Channels TW-216S2 05/11/95	Southern Drainage Channels TW-216WT 05/10/95	Southern Drainage Channels TW-217S2 05/10/95	Southern Drainage Channels TW-217WT 05/09/95
Volatile Organics (Cont'd.)						
Chloroethane	ug/L	2.0 U	NA	1.0 U	NA	1.0 U
Chloroform	ug/L	14	NA	1.0 U	NA	1.0 U
Chloromethane	ug/L	2.0 U	NA	1.0 U	NA	1.0 U
cis-1,2-Dichloroethene	ug/L	2.0 U	NA	1.0 U	NA	1.0 U
cis-1,3-Dichloropropene	ug/L	2.0 U	NA	1.0 U	NA	1.0 U
Cyclohexane	ug/L	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	2.0 U	NA	1.0 U	NA	1.0 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	2.0 U	NA	1.0 U	NA	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	2.0 UJ	NA	1.0 U	NA	1.0 UJ
Naphthalene	ug/L	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA
Styrene	ug/L	2.0 U	NA	1.0 U	NA	1.0 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	2.0 U	NA	1.0 U	NA	1.0 U
Toluene	ug/L	2.0 U	NA	1.0 U	NA	1.0 U
trans-1,2-Dichloroethene	ug/L	2.0 U	NA	1.0 U	NA	1.0 U
trans-1,3-Dichloropropene	ug/L	2.0 U	NA	1.0 U	NA	1.0 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA
Trichloroethene	ug/L	2.0 U	NA	1.0 U	NA	1.0 U
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	2.0 U	NA	1.0 U	NA	1.0 U
Total 1,3-Dichloropropenes	ug/L	2.0 U	NA	1.0 U	NA	1.0 U
Total Xylenes	ug/L	6.0 U	NA	3.0 U	NA	3.0 U

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels TW-216S1 05/10/95	Southern Drainage Channels TW-216S2 05/11/95	Southern Drainage Channels TW-216WT 05/10/95	Southern Drainage Channels TW-217S2 05/10/95	Southern Drainage Channels TW-217WT 05/09/95
Semivolatile Organics						
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5.0 U	NA	5.0 U	NA	5.0 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	5.0 UJ	NA	5.0 UJ	NA	5.0 UJ
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	5.0 U	5.0 U [50 U]	50 U	NA	5.0 U
2,4,6-Trichlorophenol	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	NA	5.0 U
2,4-Dichlorophenol	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	NA	5.0 U
2,4-Dimethylphenol	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	NA	5.0 U
2,4-Dinitrophenol	ug/L	20 UJ	20 U [20 U]	20 UJ	NA	20 UJ
2,4-Dinitrotoluene	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	NA	5.0 U
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	NA	5.0 U
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	NA	5.0 U
2-Chlorophenol	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	NA	5.0 U
2-Methylnaphthalene	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	NA	5.0 U
2-Methylphenol	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	NA	5.0 U
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	20 U	20 U [20 U]	20 U	NA	20 U
2-Nitrophenol	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	NA	5.0 U
2-Picoline	ug/L	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	20 U	20 U [20 U]	20 U	NA	20 U
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	20 U	20 U [20 U]	20 U	NA	20 U
4,6-Dinitro-2-methylphenol	ug/L	20 U	20 U [20 U]	20 U	NA	20 U
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	NA	5.0 U
4-Chloro-3-Methylphenol	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	NA	5.0 U
4-Chloroaniline	ug/L	20 U	20 U [20 U]	20 U	NA	20 U
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	NA	5.0 U
4-Methylphenol	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	NA	5.0 U

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ORGANIC COMPOUNDS

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SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels TW-216S1 05/10/95	Southern Drainage Channels TW-216S2 05/11/95	Southern Drainage Channels TW-216WT 05/10/95	Southern Drainage Channels TW-217S2 05/10/95	Southern Drainage Channels TW-217WT 05/09/95
Semivolatile Organics (Cont'd.)						
4-Nitroaniline	ug/L	20 U	20 U [20 U]	20 U	NA	20 U
4-Nitrophenol	ug/L	20 U	20 U [20 U]	20 U	NA	20 U
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA
Acenaphthene	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	NA	5.0 U
Acenaphthylene	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	NA	5.0 U
Acetophenone	ug/L	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA
Anthracene	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	NA	5.0 U
Atrazine	ug/L	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	NA	5.0 U
Benzo(a)pyrene	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	NA	5.0 U
Benzo(b)fluoranthene	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	NA	5.0 U
Benzo(g,h,i)perylene	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	NA	5.0 U
Benzo(k)fluoranthene	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	NA	5.0 U
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	NA	5.0 U
bis(2-Chloroethyl)ether	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	NA	5.0 U
bis(2-Ethylhexyl)phthalate	ug/L	4.7 J	5.0 U [2.2 JB]	5.0 U	NA	1.8 J
Butylbenzylphthalate	ug/L	NA	5.0 U [5.0 U]	2.1 J	NA	5.0 U
Caprolactam	ug/L	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	5.0 U [5.0 U]	5.0 U	NA	5.0 U
Chrysene	ug/L	NA	5.0 U [5.0 U]	5.0 U	NA	5.0 U
Diallate	ug/L	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	5.0 U [5.0 U]	5.0 U	NA	5.0 U
Dibenzofuran	ug/L	NA	5.0 U [5.0 U]	5.0 U	NA	5.0 U
Diethylphthalate	ug/L	NA	5.0 U [5.0 U]	5.0 U	NA	5.0 U
Dimethylphthalate	ug/L	NA	5.0 U [5.0 U]	5.0 U	NA	5.0 U
Di-n-Butylphthalate	ug/L	NA	5.0 U [5.0 U]	5.0 U	NA	5.0 U
Di-n-Octylphthalate	ug/L	NA	5.0 U [5.0 U]	5.0 U	NA	5.0 U
Diphenylamine	ug/L	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	5.0 U [5.0 U]	5.0 U	NA	5.0 U
Fluorene	ug/L	NA	5.0 U [5.0 U]	5.0 U	NA	5.0 U
Hexachlorobenzene	ug/L	NA	5.0 U [5.0 U]	5.0 U	NA	5.0 U
Hexachlorobutadiene	ug/L	NA	5.0 U [5.0 U]	5.0 U	NA	5.0 U
Hexachlorocyclopentadiene	ug/L	NA	5.0 U [5.0 U]	5.0 U	NA	NA
Hexachloroethane	ug/L	NA	5.0 U [5.0 U]	5.0 U	NA	NA
Hexachloropropene	ug/L	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	5.0 U [5.0 U]	5.0 U	NA	NA

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TABLE A-1
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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels TW-216S1 05/10/95	Southern Drainage Channels TW-216S2 05/11/95	Southern Drainage Channels TW-216WT 05/10/95	Southern Drainage Channels TW-217S2 05/10/95	Southern Drainage Channels TW-217WT 05/09/95
Semivolatile Organics (Cont'd.)						
Isophorone	ug/L	NA	5.0 U [5.0 U]	5.0 U	NA	NA
Isosafrole	ug/L	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	5.0 U [5.0 U]	5.0 U	NA	NA
Nitrobenzene	ug/L	NA	5.0 U [5.0 U]	5.0 U	NA	NA
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	5.0 U [5.0 U]	5.0 UJ	NA	NA
N-Nitrosodiphenylamine	ug/L	NA	5.0 U [5.0 U]	5.0 U	NA	NA
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	20 U [20 U]	20 U	NA	NA
Phenacetin	ug/L	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	5.0 U [5.0 U]	5.0 U	NA	NA
Phenol	ug/L	NA	5.0 U [5.0 U]	5.0 U	NA	NA
Pronamide	ug/L	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	5.0 U [5.0 U]	5.0 U	NA	NA
Pyridine	ug/L	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	NA	5.0 U [5.0 U]	5.0 U	NA	NA
PCBs						
Aroclor-1016	ug/L	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA
PCBs-Dissolved						
Aroclor-1016 (Dissolved)	ug/L	NA	0.2 U [0.2 U]	0.2 U	NA	NA
Aroclor-1221 (Dissolved)	ug/L	NA	0.2 U [0.2 U]	0.2 U	NA	NA
Aroclor-1232 (Dissolved)	ug/L	NA	0.4 U [0.4 U]	0.4 U	NA	NA
Aroclor-1242 (Dissolved)	ug/L	NA	0.2 U [0.2 U]	0.2 U	NA	NA

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SAGINAW, MICHIGAN

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PCBs-Dissolved (Cont'd.)						
Aroclor-1248 (Dissolved)	ug/L	NA	0.2 U [0.2 U]	0.2 U	NA	NA
Aroclor-1254 (Dissolved)	ug/L	NA	0.2 U [0.2 U]	0.2 U	NA	NA
Aroclor-1260 (Dissolved)	ug/L	NA	0.2 U [0.2 U]	0.2 U	0.2 U	NA
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	0.4 U [0.4 U]	0.4 U	0.4 U	NA
Organochlorine Pesticides						
4,4'-DDD	ug/L	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	NA	0.2 U [0.2 U]	0.2 U	0.2 U	NA
Aroclor-1221	ug/L	NA	0.2 U [0.2 U]	0.2 U	0.2 U	NA
Aroclor-1232	ug/L	NA	0.4 U [0.4 U]	0.4 U	0.4 U	NA
Aroclor-1242	ug/L	NA	0.2 U [0.2 U]	0.2 U	0.2 U	NA
Aroclor-1248	ug/L	NA	0.2 U [0.2 U]	0.2 U	0.2 U	NA
Aroclor-1254	ug/L	NA	0.2 U [0.2 U]	0.2 U	0.2 U	NA
Aroclor-1260	ug/L	NA	0.2 U [0.2 U]	NA	0.2 U	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA
Organophosphate Pesticides						
4,4'-DDD	ug/L	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels TW-216S1 05/10/95	Southern Drainage Channels TW-216S2 05/11/95	Southern Drainage Channels TW-216WT 05/10/95	Southern Drainage Channels TW-217S2 05/10/95	Southern Drainage Channels TW-217WT 05/09/95
Organophosphate Pesticides (Cont'd.)						
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA
Herbicides						
2,4,5-T	ug/L	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA
Dioxins/Furans						
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA

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TABLE A-1
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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

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Dioxins/Furans (Cont'd.)						
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

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Volatile Organics						
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	NA	1.0 U	1.0 U	NA	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	NA	1.0 U	1.0 U	NA	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	NA	1.0 U	1.0 U	NA	1.0 U
1,1-Dichloroethane	ug/L	NA	1.0 U	1.0 U	NA	1.0 U
1,1-Dichloroethene	ug/L	NA	1.0 U	1.0 U	NA	1.0 U
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	1.0 U	1.0 U	NA	1.0 U
1,2-Dichloroethane	ug/L	NA	1.0 U	1.0 U	NA	1.0 U
1,2-Dichloroethene (total)	ug/L	NA	1.0 U	1.0 U	NA	1.0 U
1,2-Dichloropropane	ug/L	NA	1.0 U	1.0 U	NA	1.0 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	1.0 U	1.0 U	NA	1.0 U
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	1.0 U	1.0 U	NA	1.0 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA
2-Butanone	ug/L	NA	50 U	50 UJ	NA	50 U
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA
2-Hexanone	ug/L	NA	50 U	R	NA	50 U
3-Chloropropene	ug/L	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	NA	50 U	50 U	NA	50 U
Acetone	ug/L	NA	50 U	5.0 J	NA	50 U
Acetonitrile	ug/L	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA
Benzene	ug/L	NA	1.0 U	1.0 U	NA	1.0 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	NA	1.0 U	1.0 U	NA	1.0 U
Bromoform	ug/L	NA	1.0 U	1.0 U	NA	1.0 U
Bromomethane	ug/L	NA	1.0 U	1.0 U	NA	1.0 U
Carbon Disulfide	ug/L	NA	50 U	50 U	NA	50 U
Carbon Tetrachloride	ug/L	NA	1.0 U	1.0 U	NA	1.0 U
Chlorobenzene	ug/L	NA	1.0 U	1.0 U	NA	1.0 U

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ORGANIC COMPOUNDS

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SAGINAW, MICHIGAN

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Volatile Organics (Cont'd.)						
Chloroethane	ug/L	NA	1.0 U	1.0 U	NA	1.0 U
Chloroform	ug/L	NA	1.0 U	1.0 U	NA	1.0 U
Chloromethane	ug/L	NA	1.0 U	1.0 U	NA	1.0 U
cis-1,2-Dichloroethene	ug/L	NA	1.0 U	1.0 U	NA	1.0 U
cis-1,3-Dichloropropene	ug/L	NA	1.0 U	1.0 U	NA	1.0 U
Cyclohexane	ug/L	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	NA	1.0 U	1.0 U	NA	1.0 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	NA	1.0 U	1.0 U	NA	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	NA	1.0 UJ	1.0 U	NA	1.0 UJ
Naphthalene	ug/L	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA
Styrene	ug/L	NA	1.0 U	1.0 U	NA	1.0 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	NA	1.0 U	1.0 U	NA	1.0 U
Toluene	ug/L	NA	1.0 U	1.0 U	NA	1.0 U
trans-1,2-Dichloroethene	ug/L	NA	1.0 U	1.0 U	NA	1.0 U
trans-1,3-Dichloropropene	ug/L	NA	1.0 U	1.0 U	NA	1.0 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA
Trichloroethene	ug/L	NA	1.0 U	1.0 U	NA	1.0 U
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	NA	1.0 U	1.0 U	NA	1.0 U
Total 1,3-Dichloropropenes	ug/L	NA	1.0 U	1.0 U	NA	1.0 U
Total Xylenes	ug/L	NA	3.0 U	3.0 U	NA	3.0 U

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Semivolatile Organics						
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	5.0 U	5.0 U	NA	5.0 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	NA	5.0 UJ	5.0 UJ	NA	5.0 UJ
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	5.0 U	5.0 U	NA	5.0 U
2,4,6-Trichlorophenol	ug/L	NA	5.0 U	5.0 U	NA	5.0 U
2,4-Dichlorophenol	ug/L	NA	5.0 U	5.0 U	NA	5.0 U
2,4-Dimethylphenol	ug/L	NA	5.0 U	5.0 U	NA	5.0 U
2,4-Dinitrophenol	ug/L	NA	20 UJ	20 UJ	NA	20 UJ
2,4-Dinitrotoluene	ug/L	NA	5.0 U	5.0 U	NA	5.0 U
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	5.0 U	5.0 U	NA	5.0 U
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	5.0 U	5.0 U	NA	5.0 U
2-Chlorophenol	ug/L	NA	5.0 U	5.0 U	NA	5.0 U
2-Methylnaphthalene	ug/L	NA	5.0 U	5.0 U	NA	5.0 U
2-Methylphenol	ug/L	NA	5.0 U	5.0 U	NA	5.0 U
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	20 UJ	20 U	NA	20 U
2-Nitrophenol	ug/L	NA	5.0 U	5.0 U	NA	5.0 U
2-Picoline	ug/L	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	20 U	20 U	NA	20 U
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	20 U	20 U	NA	20 U
4,6-Dinitro-2-methylphenol	ug/L	NA	20 U	20 U	NA	20 U
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	5.0 U	5.0 U	NA	5.0 U
4-Chloro-3-Methylphenol	ug/L	NA	5.0 U	5.0 U	NA	5.0 U
4-Chloroaniline	ug/L	NA	20 U	20 U	NA	20 U
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	5.0 U	5.0 U	NA	5.0 U
4-Methylphenol	ug/L	NA	5.0 U	5.0 U	NA	5.0 U

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Semivolatile Organics (Cont'd.)						
4-Nitroaniline	ug/L	NA	20 U	20 U	NA	20 U
4-Nitrophenol	ug/L	NA	20 U	20 U	NA	20 U
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	5.0 U	5.0 U	NA	5.0 U
Acenaphthylene	ug/L	NA	5.0 U	5.0 U	NA	5.0 U
Acetophenone	ug/L	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	5.0 U	5.0 U	NA	5.0 U
Atrazine	ug/L	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	5.0 U	5.0 U	NA	5.0 U
Benzo(a)pyrene	ug/L	NA	5.0 U	5.0 U	NA	5.0 U
Benzo(b)fluoranthene	ug/L	NA	5.0 U	5.0 U	NA	5.0 U
Benzo(g,h,i)perylene	ug/L	NA	5.0 U	5.0 U	NA	5.0 U
Benzo(k)fluoranthene	ug/L	NA	5.0 U	5.0 U	NA	5.0 U
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	5.0 U	5.0 U	NA	5.0 U
bis(2-Chloroethyl)ether	ug/L	NA	5.0 U	5.0 U	NA	5.0 U
bis(2-Ethylhexyl)phthalate	ug/L	NA	5.0 U	4.1 J	NA	41
Butylbenzylphthalate	ug/L	NA	5.0 U	5.0 U	NA	5.0 U
Caprolactam	ug/L	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	5.0 U	5.0 U	NA	5.0 U
Chrysene	ug/L	NA	5.0 U	5.0 U	NA	5.0 U
Diallate	ug/L	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	5.0 U	5.0 U	NA	5.0 U
Dibenzofuran	ug/L	NA	5.0 U	5.0 U	NA	5.0 U
Diethylphthalate	ug/L	NA	5.0 U	5.0 U	NA	5.0 U
Dimethylphthalate	ug/L	NA	5.0 U	5.0 U	NA	5.0 U
Di-n-Butylphthalate	ug/L	NA	5.0 U	5.0 U	NA	5.0 U
Di-n-Octylphthalate	ug/L	NA	5.0 U	5.0 U	NA	5.0 U
Diphenylamine	ug/L	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	5.0 U	5.0 U	NA	5.0 U
Fluorene	ug/L	NA	5.0 U	5.0 U	NA	5.0 U
Hexachlorobenzene	ug/L	NA	5.0 U	5.0 U	NA	5.0 U
Hexachlorobutadiene	ug/L	NA	5.0 U	5.0 U	NA	5.0 U
Hexachlorocyclopentadiene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U
Hexachloroethane	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U
Hexachloropropene	ug/L	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels TW-216WT 05/10/95	Southern Drainage Channels TW-217S1 05/10/95	Southern Drainage Channels TW-217S2 05/10/95	Southern Drainage Channels TW-217WT 05/09/95	Southern Drainage Channels TW-218S1 05/09/95
Semivolatile Organics (Cont'd.)						
Isophorone	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U
Isosafrole	ug/L	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U
Nitrobenzene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ
N-Nitrosodiphenylamine	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	20 U	20 U	20 U	20 U
Phenacetin	ug/L	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U
Phenol	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U
Pronamide	ug/L	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U
Pyridine	ug/L	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U
PCBs						
Aroclor-1016	ug/L	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA
PCBs-Dissolved						
Aroclor-1016 (Dissolved)	ug/L	NA	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1221 (Dissolved)	ug/L	NA	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1232 (Dissolved)	ug/L	NA	0.4 U	0.4 U	0.4 U	0.4 U
Aroclor-1242 (Dissolved)	ug/L	NA	0.2 U	0.2 U	0.2 U	0.2 U

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SAGINAW, MICHIGAN

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PCBs-Dissolved (Cont'd.)						
Aroclor-1248 (Dissolved)	ug/L	NA	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1254 (Dissolved)	ug/L	NA	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor-1260 (Dissolved)	ug/L	NA	0.2 U	NA	0.2 U	0.2 U
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	0.4 U	NA	0.4 U	0.4 U
Organochlorine Pesticides						
4,4'-DDD	ug/L	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	NA	0.2 U	NA	0.2 U	0.2 U
Aroclor-1221	ug/L	NA	0.2 U	NA	0.2 U	0.5 U
Aroclor-1232	ug/L	NA	0.4 U	NA	0.4 U	0.4 U
Aroclor-1242	ug/L	NA	0.2 U	NA	0.2 U	0.2 U
Aroclor-1248	ug/L	NA	0.2 U	NA	0.2 U	0.2 U
Aroclor-1254	ug/L	NA	0.2 U	NA	0.2 U	0.2 U
Aroclor-1260	ug/L	0.2 U	0.2 U	NA	0.2 U	0.2 U
Aroclor-1262	ug/L	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA
Organophosphate Pesticides						
4,4'-DDD	ug/L	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

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Organophosphate Pesticides (Cont'd.)						
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA
Herbicides						
2,4,5-T	ug/L	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA
Dioxins/Furans						
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels TW-216WT 05/10/95	Southern Drainage Channels TW-217S1 05/10/95	Southern Drainage Channels TW-217S2 05/10/95	Southern Drainage Channels TW-217WT 05/09/95	Southern Drainage Channels TW-218S1 05/09/95
Dioxins/Furans (Cont'd.)						
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA

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ORGANIC COMPOUNDS

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	Southern Drainage Channels TW-218S2 05/09/95	Southern Drainage Channels TW-218S3 05/09/95	Southern Drainage Channels TW-218WT 05/09/95	UST 4 UST-MWS1 27 - 32 07/27/95	UST 4 UST-MWS1 27 - 32 06/10/96	UST 4 UST-MWS2 40.1 - 45.1 07/26/95	UST 4 UST-MWS2 40.1 - 45.1 06/10/96	UST 7 BBL-MW1 4.2 - 13.7 06/01/96	UST 7 BBL-MW1 4.2 - 13.7 06/20/96	UST 7 BBL-MW1 4.2 - 13.7 07/31/98
Volatile Organics											
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	NA	25 U	NA
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	NA	25 U	NA
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	NA	25 U	NA
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	NA	25 U	NA
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	NA	25 U	NA
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	650	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	NA	25 U	NA
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	NA	25 U	NA
1,2-Dichloroethene (total)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	NA	25 U	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	240	NA
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	NA	25 U	NA
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	NA	25 U	NA
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	50 U	50 U	50 U	50 UJ	50 U	50 U	NA	NA	1,200 U	NA
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	50 U	50 U	50 U	50 U	50 U	R	NA	NA	1,200 U	NA
3-Chloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U	50 U	50 U	50 U	50 U	50 U	NA	NA	1,200 U	NA
Acetone	ug/L	50 U	50 U	50 U	50 UJ	100 U	50 U	NA	NA	2,500 U	NA
Acetonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.8	NA	16	16 J	13
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	NA	25 U	NA
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	NA	25 U	NA
Bromomethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	NA	NA	25 U	NA
Carbon Disulfide	ug/L	50 U	50 U	50 U	50 U	50 U	50 U	NA	NA	1,200 U	NA
Carbon Tetrachloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	NA	25 U	NA
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	NA	25 U	NA

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels TW-218S2 05/09/95	Southern Drainage Channels TW-218S3 05/09/95	Southern Drainage Channels TW-218WT 05/09/95	UST 4 UST-MWS1 27 - 32 07/27/95	UST 4 UST-MWS1 27 - 32 06/10/96	UST 4 UST-MWS2 40.1 - 45.1 07/26/95	UST 4 UST-MWS2 40.1 - 45.1 06/10/96	UST 7 BBL-MW1 4.2 - 13.7 06/01/96	UST 7 BBL-MW1 4.2 - 13.7 06/20/96	UST 7 BBL-MW1 4.2 - 13.7 07/31/98
Volatile Organics (Cont'd.)											
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	NA	25 U	NA
Chloroform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	NA	25 U	NA
Chloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	NA	25 U	NA
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	NA	25 U	NA
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	NA	25 U	NA
Cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	NA	25 U	NA
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	130	130	13
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	120 U	NA
Methylene Chloride	ug/L	1.0 UJ	1.0 UJ	1.0 UJ	1.0 U	5.0 U	1.0 U	NA	NA	120 U	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	NA	25 U	NA
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	NA	25 U	NA
Toluene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	25 U	25 U	1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	NA	25 U	NA
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	NA	NA	25 U	NA
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	NA	25 U	NA
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	NA	25 U	NA
Total 1,3-Dichloropropenes	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	NA	25 U	NA
Total Xylenes	ug/L	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	NA	210	210	10

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels TW-218S2 05/09/95	Southern Drainage Channels TW-218S3 05/09/95	Southern Drainage Channels TW-218WT 05/09/95	UST 4 UST-MWS1 27 - 32 07/27/95	UST 4 UST-MWS1 27 - 32 06/10/96	UST 4 UST-MWS2 40.1 - 45.1 07/26/95	UST 4 UST-MWS2 40.1 - 45.1 06/10/96	UST 7 BBL-MW1 4.2 - 13.7 06/01/96	UST 7 BBL-MW1 4.2 - 13.7 06/20/96	UST 7 BBL-MW1 4.2 - 13.7 07/31/98
Semivolatile Organics											
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	6.0 UJ	5.0 UJ	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	6.0 U	5.0 U	5.0 U	50 U	50 U	50 U	50 U	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA
2,4-Dichlorophenol	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA
2,4-Dimethylphenol	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA
2,4-Dinitrophenol	ug/L	23 UJ	20 UJ	20 UJ	20 U	20 U	20 U	20 U	NA	NA	NA
2,4-Dinitrotoluene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA
2-Chlorophenol	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA
2-Methylnaphthalene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0.79 J	1.2 J	NA	NA	NA
2-Methylphenol	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	23 U	20 U	20 U	20 U	20 U	20 U	20 U	NA	NA	NA
2-Nitrophenol	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA
2-Picoline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	23 U	20 U	20 U	20 U	20 U	20 U	20 U	NA	NA	NA
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	23 U	20 U	20 U	20 U	20 U	20 U	20 U	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	23 U	20 U	20 U	20 U	20 U	20 U	20 U	NA	NA	NA
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA
4-Chloroaniline	ug/L	23 U	20 U	20 U	20 U	20 U	20 U	20 U	NA	NA	NA
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA
4-Methylphenol	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA

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Semivolatile Organics (Cont'd.)											
4-Nitroaniline	ug/L	23 U	20 U	20 U	20 U	20 U	20 U	20 U	NA	NA	NA
4-Nitrophenol	ug/L	23 U	20 U	20 U	20 U	20 U	20 U	20 U	NA	NA	NA
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	1.3 J	5.0 U	5.0 U	NA	NA	NA
Acenaphthylene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA
Benzo(a)pyrene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA
Benzo(b)fluoranthene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA
Benzo(k)fluoranthene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	4.7 J	6.5	1.2 J	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA
Butylbenzylphthalate	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	6.0 U	5.0 U	5.0 U	10 U	10 U	10 U	10 U	NA	NA	NA
Chrysene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA
Diallate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA
Dibenzofuran	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA
Diethylphthalate	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA
Dimethylphthalate	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA
Di-n-Butylphthalate	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA
Di-n-Octylphthalate	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA
Diphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA
Fluorene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA
Hexachlorobenzene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA
Hexachlorobutadiene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA
Hexachloroethane	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	2.0 U	5.0 U	2.0 U	NA	NA	NA
Hexachloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA

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SAGINAW, MICHIGAN

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Semivolatile Organics (Cont'd.)											
Isophorone	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA
Isosafrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.1 J	5.0 U	NA	NA	NA
Nitrobenzene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	6.0 UJ	5.0 UJ	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	23 U	20 U	20 U	25 U	25 U	25 U	25 U	NA	NA	NA
Phenacetin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA
Phenol	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA
Pronamide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	6.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA
PCBs											
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs-Dissolved											
Aroclor-1016 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	NA	NA
Aroclor-1221 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.8 U*	NA	NA	NA	NA
Aroclor-1232 (Dissolved)	ug/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	NA	NA	NA	NA
Aroclor-1242 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	Southern Drainage Channels TW-218S2 05/09/95	Southern Drainage Channels TW-218S3 05/09/95	Southern Drainage Channels TW-218WT 05/09/95	UST 4 UST-MWS1 27 - 32 07/27/95	UST 4 UST-MWS1 27 - 32 06/10/96	UST 4 UST-MWS2 40.1 - 45.1 07/26/95	UST 4 UST-MWS2 40.1 - 45.1 06/10/96	UST 7 BBL-MW1 4.2 - 13.7 06/01/96	UST 7 BBL-MW1 4.2 - 13.7 06/20/96	UST 7 BBL-MW1 4.2 - 13.7 07/31/98
PCBs-Dissolved (Cont'd.)											
Aroclor-1248 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	NA	NA
Aroclor-1254 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	NA	NA
Aroclor-1260 (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	NA	NA
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.8 U	NA	NA	NA	NA
Organochlorine Pesticides											
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	0.2 U	0.2 U	0.2 UJ	0.2 U	0.2 UJ	0.2 U	NA	NA	0.2 U	NA
Aroclor-1221	ug/L	0.2 U	0.2 U	0.2 UJ	0.2 U	0.2 U	0.8 U*	NA	NA	0.2 U	NA
Aroclor-1232	ug/L	0.4 U	0.4 U	0.4 UJ	0.4 U	0.4 U	0.4 U	NA	NA	0.4 U	NA
Aroclor-1242	ug/L	0.2 U	0.2 U	0.2 UJ	0.2 U	0.2 U	0.2 U	NA	NA	0.2 U	NA
Aroclor-1248	ug/L	0.2 U	0.2 U	0.2 UJ	0.2 U	0.2 U	0.2 U	NA	NA	0.2 UJ	NA
Aroclor-1254	ug/L	0.2 U	0.2 U	0.2 UJ	0.2 U	0.2 U	0.2 U	NA	NA	0.2 U	NA
Aroclor-1260	ug/L	0.2 U	0.2 U	0.2 UJ	0.2 U	0.2 U	0.2 U	NA	NA	0.2 U	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Organophosphate Pesticides											
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels TW-218S2 05/09/95	Southern Drainage Channels TW-218S3 05/09/95	Southern Drainage Channels TW-218WT 05/09/95	UST 4 UST-MWS1 27 - 32 07/27/95	UST 4 UST-MWS1 27 - 32 06/10/96	UST 4 UST-MWS2 40.1 - 45.1 07/26/95	UST 4 UST-MWS2 40.1 - 45.1 06/10/96	UST 7 BBL-MW1 4.2 - 13.7 06/01/96	UST 7 BBL-MW1 4.2 - 13.7 06/20/96	UST 7 BBL-MW1 4.2 - 13.7 07/31/98
Organophosphate Pesticides (Cont'd.)											
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides											
2,4,5-T	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans											
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels TW-218S2 05/09/95	Southern Drainage Channels TW-218S3 05/09/95	Southern Drainage Channels TW-218WT 05/09/95	UST 4 UST-MWS1 27 - 32 07/27/95	UST 4 UST-MWS1 27 - 32 06/10/96	UST 4 UST-MWS2 40.1 - 45.1 07/26/95	UST 4 UST-MWS2 40.1 - 45.1 06/10/96	UST 7 BBL-MW1 4.2 - 13.7 06/01/96	UST 7 BBL-MW1 4.2 - 13.7 06/20/96	UST 7 BBL-MW1 4.2 - 13.7 07/31/98
Dioxins/Furans (Cont'd.)											
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	UST 7 BBL-MW1 4.2 - 13.7 10/01/98	UST 7 BBL-MW1 4.2 - 13.7 10/27/98	UST 7 BBL-MW1 4.2 - 13.7 01/01/99	UST 7 BBL-MW1 4.2 - 13.7 01/28/99	UST 7 BBL-MW1 4.2 - 13.7 04/01/99	UST 7 BBL-MW1 4.2 - 13.7 04/12/99	UST 7 BBL-MW1 4.2 - 13.7 07/01/99	UST 7 BBL-MW1 4.2 - 13.7 07/14/99	UST 7 BBL-MW1 4.2 - 13.7 10/01/99	UST 7 BBL-MW1 4.2 - 13.7 10/22/99	UST 7 BBL-MW1 4.2 - 13.7 01/01/00	UST 7 BBL-MW1 4.2 - 13.7 05/01/00	UST 7 BBL-MW1 4.2 - 13.7 05/18/00	UST 7 BBL-MW1 4.2 - 13.7 08/01/00	UST 7 BBL-MW1 4.2 - 13.7 08/23/00
Volatile Organics																
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	NA	NA
1,1,2,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	NA	NA
1,1-Dichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	NA	NA
1,1-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	NA	NA
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	55	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	NA	NA
1,2-Dichloroethene (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	NA	NA
1,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	18	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	19 J	NA	NA
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	50 U	NA	NA
3-Chloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	11 J	NA	NA
Acetone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	71 U	NA	NA
Acetonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	10	10	26	26	20	20	27	27	6.0	6.0	4.0 [5.0]	8.1	8.1	3.0 [1.0 U]	3.0 [1.0 U]
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	NA	NA
Bromoform	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	NA	NA
Bromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	NA	NA
Carbon Disulfide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	NA	NA
Carbon Tetrachloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	NA	NA
Chlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	NA	NA

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	UST 7 BBL-MW1 4.2 - 13.7 10/01/98	UST 7 BBL-MW1 4.2 - 13.7 10/27/98	UST 7 BBL-MW1 4.2 - 13.7 01/01/99	UST 7 BBL-MW1 4.2 - 13.7 01/28/99	UST 7 BBL-MW1 4.2 - 13.7 04/01/99	UST 7 BBL-MW1 4.2 - 13.7 04/12/99	UST 7 BBL-MW1 4.2 - 13.7 07/01/99	UST 7 BBL-MW1 4.2 - 13.7 07/14/99	UST 7 BBL-MW1 4.2 - 13.7 10/01/99	UST 7 BBL-MW1 4.2 - 13.7 10/22/99	UST 7 BBL-MW1 4.2 - 13.7 01/01/00	UST 7 BBL-MW1 4.2 - 13.7 05/01/00	UST 7 BBL-MW1 4.2 - 13.7 05/18/00	UST 7 BBL-MW1 4.2 - 13.7 08/01/00	UST 7 BBL-MW1 4.2 - 13.7 08/23/00
Volatile Organics (Cont'd.)																
Chloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	NA	NA
Chloroform	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	NA	NA
Chloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	NA	NA
cis-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.5 U	NA	NA
cis-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	NA	NA
Cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	NA	NA
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	30	30	32	32	30	30	17	17	3.0	3.0	5.0 [5.0]	10	10	2.0 [1.0 U]	2.0 [1.0 U]
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.0 [1.0 U]
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U [1.0 U]
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	NA	NA
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	NA	NA
Toluene	ug/L	2.0	2.0	3.0	3.0	20 U	20 U	5.0	5.0	1.0 U	1.0 U	1.0 U [1.0 U]	0.77 J	5.0 U	1.0 U [1.0 U]	1.0 U [1.0 U]
trans-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.5 U	NA	NA
trans-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	NA	NA
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	NA	NA
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	NA	NA
Total 1,3-Dichloropropenes	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	NA	NA
Total Xylenes	ug/L	45	45	54	54	50	50	20	20	2.0	2.0	5.0 [5.0]	15	15	2.0 [1.0 U]	2.0 [1.0 U]

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	UST 7 BBL-MW1 4.2 - 13.7 10/01/98	UST 7 BBL-MW1 4.2 - 13.7 10/27/98	UST 7 BBL-MW1 4.2 - 13.7 01/01/99	UST 7 BBL-MW1 4.2 - 13.7 01/28/99	UST 7 BBL-MW1 4.2 - 13.7 04/01/99	UST 7 BBL-MW1 4.2 - 13.7 04/12/99	UST 7 BBL-MW1 4.2 - 13.7 07/01/99	UST 7 BBL-MW1 4.2 - 13.7 07/14/99	UST 7 BBL-MW1 4.2 - 13.7 10/01/99	UST 7 BBL-MW1 4.2 - 13.7 10/22/99	UST 7 BBL-MW1 4.2 - 13.7 01/01/00	UST 7 BBL-MW1 4.2 - 13.7 05/01/00	UST 7 BBL-MW1 4.2 - 13.7 05/18/00	UST 7 BBL-MW1 4.2 - 13.7 08/01/00	UST 7 BBL-MW1 4.2 - 13.7 08/23/00
Semivolatile Organics																
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Picoline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	UST 7 BBL-MW1 4.2 - 13.7 10/01/98	UST 7 BBL-MW1 4.2 - 13.7 10/27/98	UST 7 BBL-MW1 4.2 - 13.7 01/01/99	UST 7 BBL-MW1 4.2 - 13.7 01/28/99	UST 7 BBL-MW1 4.2 - 13.7 04/01/99	UST 7 BBL-MW1 4.2 - 13.7 04/12/99	UST 7 BBL-MW1 4.2 - 13.7 07/01/99	UST 7 BBL-MW1 4.2 - 13.7 07/14/99	UST 7 BBL-MW1 4.2 - 13.7 10/01/99	UST 7 BBL-MW1 4.2 - 13.7 10/22/99	UST 7 BBL-MW1 4.2 - 13.7 01/01/00	UST 7 BBL-MW1 4.2 - 13.7 05/01/00	UST 7 BBL-MW1 4.2 - 13.7 05/18/00	UST 7 BBL-MW1 4.2 - 13.7 08/01/00	UST 7 BBL-MW1 4.2 - 13.7 08/23/00
Semivolatile Organics (Cont'd.)																
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diallate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	UST 7 BBL-MW1 4.2 - 13.7 10/01/98	UST 7 BBL-MW1 4.2 - 13.7 10/27/98	UST 7 BBL-MW1 4.2 - 13.7 01/01/99	UST 7 BBL-MW1 4.2 - 13.7 01/28/99	UST 7 BBL-MW1 4.2 - 13.7 04/01/99	UST 7 BBL-MW1 4.2 - 13.7 04/12/99	UST 7 BBL-MW1 4.2 - 13.7 07/01/99	UST 7 BBL-MW1 4.2 - 13.7 07/14/99	UST 7 BBL-MW1 4.2 - 13.7 10/01/99	UST 7 BBL-MW1 4.2 - 13.7 10/22/99	UST 7 BBL-MW1 4.2 - 13.7 01/01/00	UST 7 BBL-MW1 4.2 - 13.7 05/01/00	UST 7 BBL-MW1 4.2 - 13.7 05/18/00	UST 7 BBL-MW1 4.2 - 13.7 08/01/00	UST 7 BBL-MW1 4.2 - 13.7 08/23/00
Semivolatile Organics (Cont'd.)																
Isophorone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isosafrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenacetin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pronamide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs																
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs-Dissolved																
Aroclor-1016 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	UST 7 BBL-MW1 4.2 - 13.7 10/01/98	UST 7 BBL-MW1 4.2 - 13.7 10/27/98	UST 7 BBL-MW1 4.2 - 13.7 01/01/99	UST 7 BBL-MW1 4.2 - 13.7 01/28/99	UST 7 BBL-MW1 4.2 - 13.7 04/01/99	UST 7 BBL-MW1 4.2 - 13.7 04/12/99	UST 7 BBL-MW1 4.2 - 13.7 07/01/99	UST 7 BBL-MW1 4.2 - 13.7 07/14/99	UST 7 BBL-MW1 4.2 - 13.7 10/01/99	UST 7 BBL-MW1 4.2 - 13.7 10/22/99	UST 7 BBL-MW1 4.2 - 13.7 01/01/00	UST 7 BBL-MW1 4.2 - 13.7 05/01/00	UST 7 BBL-MW1 4.2 - 13.7 05/18/00	UST 7 BBL-MW1 4.2 - 13.7 08/01/00	UST 7 BBL-MW1 4.2 - 13.7 08/23/00
PCBs-Dissolved (Cont'd.)																
Aroclor-1248 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Organochlorine Pesticides																
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Organophosphate Pesticides																
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	UST 7 BBL-MW1 4.2 - 13.7 10/01/98	UST 7 BBL-MW1 4.2 - 13.7 10/27/98	UST 7 BBL-MW1 4.2 - 13.7 01/01/99	UST 7 BBL-MW1 4.2 - 13.7 01/28/99	UST 7 BBL-MW1 4.2 - 13.7 04/01/99	UST 7 BBL-MW1 4.2 - 13.7 04/12/99	UST 7 BBL-MW1 4.2 - 13.7 07/01/99	UST 7 BBL-MW1 4.2 - 13.7 07/14/99	UST 7 BBL-MW1 4.2 - 13.7 10/01/99	UST 7 BBL-MW1 4.2 - 13.7 10/22/99	UST 7 BBL-MW1 4.2 - 13.7 01/01/00	UST 7 BBL-MW1 4.2 - 13.7 05/01/00	UST 7 BBL-MW1 4.2 - 13.7 05/18/00	UST 7 BBL-MW1 4.2 - 13.7 08/01/00	UST 7 BBL-MW1 4.2 - 13.7 08/23/00
Organophosphate Pesticides (Cont'd.)																
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides																
2,4,5-T	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans																
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

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Dioxins/Furans (Cont'd.)																
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	UST 7 BBL-MW1 4.2 - 13.7 10/01/00	UST 7 BBL-MW1 4.2 - 13.7 03/01/01	UST 7 BBL-MW1 4.2 - 13.7 05/01/01	UST 7 BBL-MW1 4.2 - 13.7 08/01/01	UST 7 BBL-MW1 4.2 - 13.7 02/11/02	UST 7 BBL-MW1 4.2 - 13.7 08/02/02	UST 7 BBL-MW1 4.2 - 13.7 03/03/03	UST 7 BBL-MW1 4.2 - 13.7 08/03/03	UST 7 BBL-MW1 4.2 - 13.7 02/04/04	UST 7 BBL-MW1 4.2 - 13.7 08/04/04	UST 7 BBL-MW1 4.2 - 13.7 02/05/05	UST 7 BBL-MW1 4.2 - 13.7 02/22/05	UST 7 BBL-MW1 4.2 - 13.7 08/05/05	UST 7 BBL-MW1 4.2 - 13.7 08/22/05	UST 7 BBL-MW1 4.2 - 13.7 03/13/08
Volatile Organics																
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.5 U	NA	3.3 U	NA
1,1,1-Trichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.5 U	NA	3.3 U	NA
1,1,2,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.5 U	NA	3.3 U	NA
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.5 U	NA	3.3 U	NA
1,1-Dichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.5 U	NA	3.3 U	NA
1,1-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.5 U	NA	3.3 U	NA
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.5 U	NA	3.3 U	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	12 U	NA	17 U	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.5 U	NA	3.3 U	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	12 U	NA	17 U	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	26	NA	4.2	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.5 U	NA	3.3 U	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.5 U	NA	3.3 U	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.5 U	NA	3.3 U	NA
1,2-Dichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.5 U	NA	3.3 U	NA
1,2-Dichloroethene (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.5 U	NA	3.3 U	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	11	NA	6.7	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.5 U	NA	3.3 U	NA
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.5 U	NA	3.3 U	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.5 U	NA	3.3 U	NA
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.5 U	NA	3.3 U	NA
2-Butanone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.5 U	NA	3.3 U	NA
2-Hexanone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Chloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.5 U	NA	3.3 U	NA
4-Methyl-2-pentanone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	17	14 [15]	14	18 [18]	53	6.0 [7.0]	23	23 [21]	29 [29]	33 [32]	36	36	37	37	22
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.5 U	NA	3.3 U	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.5 U	NA	3.3 U	NA
Bromodichloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.5 U	NA	3.3 U	NA
Bromoform	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.5 U	NA	3.3 U	NA
Bromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.5 U	NA	3.3 U	NA
Carbon Disulfide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.5 U	NA	3.3 U	NA
Chlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.5 U	NA	3.3 U	NA

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	UST 7 BBL-MW1 4.2 - 13.7 10/01/00	UST 7 BBL-MW1 4.2 - 13.7 03/01/01	UST 7 BBL-MW1 4.2 - 13.7 05/01/01	UST 7 BBL-MW1 4.2 - 13.7 08/01/01	UST 7 BBL-MW1 4.2 - 13.7 02/11/02	UST 7 BBL-MW1 4.2 - 13.7 08/02/02	UST 7 BBL-MW1 4.2 - 13.7 03/03/03	UST 7 BBL-MW1 4.2 - 13.7 08/03/03	UST 7 BBL-MW1 4.2 - 13.7 02/04/04	UST 7 BBL-MW1 4.2 - 13.7 08/04/04	UST 7 BBL-MW1 4.2 - 13.7 02/05/05	UST 7 BBL-MW1 4.2 - 13.7 02/22/05	UST 7 BBL-MW1 4.2 - 13.7 08/05/05	UST 7 BBL-MW1 4.2 - 13.7 08/22/05	UST 7 BBL-MW1 4.2 - 13.7 03/13/08
Volatile Organics (Cont'd.)																
Chloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.5 U	NA	3.3 U	NA
Chloroform	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.5 U	NA	3.3 U	NA
Chloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.5 U	NA	3.3 U	NA
cis-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.5 U	NA	3.3 U	NA
cis-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.5 U	NA	3.3 U	NA
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	12 U	NA	17 U	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.5 U	NA	3.3 U	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	22	12 [13]	9.0	13 [13]	25	2.0 [2.0]	4.0	4.0 [4.0]	13 [13]	19 [20]	27	27	25	25	32
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.5 U	NA	3.3 U	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	31	NA	29	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	11	NA	6.7 U	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	12 U	NA	17 U	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	12 U	NA	17 U	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.3	NA	8.0	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100	NA	97	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.5 U	NA	3.3 U	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.5 U	NA	3.3 U	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0	NA	5.1	NA
Styrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.5 U	NA	3.3 U	NA
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.5 U	NA	3.3 U	NA
Tetrachloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.5 U	NA	3.3 U	NA
Toluene	ug/L	2.0	1.0 [1.0]	1.0 U	1.0 U	3.0	1.0 U [1.0 U]	2.0	2.0 [2.0]	1.5 J [1.5 J]	1.6 [1.7]	2.5 U	2.5 U	3.3 U	3.3 U	1.6
trans-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.5 U	NA	3.3 U	NA
trans-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.5 U	NA	3.3 U	NA
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.5 U	NA	3.3 U	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.5 U	NA	3.3 U	NA
Total 1,3-Dichloropropenes	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Xylenes	ug/L	36	15 [17]	9.0	15 [15]	28	2.0 [2.0]	3.0	4.0 [4.0]	7.4 [7.3]	6.8 [7.5]	11	11	6.7 U	6.7 U	3.3

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SAGINAW, MICHIGAN

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Semivolatile Organics																
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Picoline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Semivolatile Organics (Cont'd.)																
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diallate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	UST 7 BBL-MW1 4.2 - 13.7 10/01/00	UST 7 BBL-MW1 4.2 - 13.7 03/01/01	UST 7 BBL-MW1 4.2 - 13.7 05/01/01	UST 7 BBL-MW1 4.2 - 13.7 08/01/01	UST 7 BBL-MW1 4.2 - 13.7 02/11/02	UST 7 BBL-MW1 4.2 - 13.7 08/02/02	UST 7 BBL-MW1 4.2 - 13.7 03/03/03	UST 7 BBL-MW1 4.2 - 13.7 08/03/03	UST 7 BBL-MW1 4.2 - 13.7 02/04/04	UST 7 BBL-MW1 4.2 - 13.7 08/04/04	UST 7 BBL-MW1 4.2 - 13.7 02/05/05	UST 7 BBL-MW1 4.2 - 13.7 02/22/05	UST 7 BBL-MW1 4.2 - 13.7 08/05/05	UST 7 BBL-MW1 4.2 - 13.7 08/22/05	UST 7 BBL-MW1 4.2 - 13.7 03/13/08
Semivolatile Organics (Cont'd.)																
Isophorone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isosafrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenacetin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pronamide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs																
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs-Dissolved																
Aroclor-1016 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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PCBs-Dissolved (Cont'd.)																
Aroclor-1248 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Organochlorine Pesticides																
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Organophosphate Pesticides																
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Organophosphate Pesticides (Cont'd.)																
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides																
2,4,5-T	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans																
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	UST 7 BBL-MW1 4.2 - 13.7 10/01/00	UST 7 BBL-MW1 4.2 - 13.7 03/01/01	UST 7 BBL-MW1 4.2 - 13.7 05/01/01	UST 7 BBL-MW1 4.2 - 13.7 08/01/01	UST 7 BBL-MW1 4.2 - 13.7 02/11/02	UST 7 BBL-MW1 4.2 - 13.7 08/02/02	UST 7 BBL-MW1 4.2 - 13.7 03/03/03	UST 7 BBL-MW1 4.2 - 13.7 08/03/03	UST 7 BBL-MW1 4.2 - 13.7 02/04/04	UST 7 BBL-MW1 4.2 - 13.7 08/04/04	UST 7 BBL-MW1 4.2 - 13.7 02/05/05	UST 7 BBL-MW1 4.2 - 13.7 02/22/05	UST 7 BBL-MW1 4.2 - 13.7 08/05/05	UST 7 BBL-MW1 4.2 - 13.7 08/22/05	UST 7 BBL-MW1 4.2 - 13.7 03/13/08
Dioxins/Furans (Cont'd.)																
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	UST 7 BBL-MW2 4.7 - 14.2 06/18/96	UST 7 BBL-MW2 4.7 - 14.2 05/01/00	UST 7 BBL-MW2 4.7 - 14.2 05/19/00	UST 7 BBL-MW3 5.2 - 14.7 06/18/96	UST 7 BBL-MW3 5.2 - 14.7 05/01/00	UST 7 BBL-MW3 5.2 - 14.7 05/17/00	UST 7 BBL-MW3 5.2 - 14.7 02/06/06	UST 7 BBL-MW3 5.2 - 14.7 08/06/06	UST 7 BBL-MW4 5.2 - 14.7 06/01/96	UST 7 BBL-MW4 5.2 - 14.7 06/18/96	UST 7 BBL-MW4 5.2 - 14.7 07/31/98	UST 7 BBL-MW4 5.2 - 14.7 10/01/98	UST 7 BBL-MW4 5.2 - 14.7 10/27/98	UST 7 BBL-MW4 5.2 - 14.7 01/01/99	UST 7 BBL-MW4 5.2 - 14.7 01/28/99
Volatile Organics																
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	10 U [6.2 U]	NA	1.0 U	10 U	NA	1.0 U	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	ug/L	10 U [6.2 U]	NA	1.0 U	10 U	NA	1.0 U	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	10 U [6.2 U]	NA	1.0 U	10 U	NA	1.0 U	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/L	10 U [6.2 U]	NA	0.21 J	10 U	NA	1.0 U	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA
1,1-Dichloroethene	ug/L	10 U [6.2 U]	NA	1.0 U	10 U	NA	1.0 U	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	110 [91]	NA	1.0 U	10 U	NA	0.39 J	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	10 U [6.2 U]	NA	NA	10 U	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA
1,2-Dichloroethane	ug/L	10 U [6.2 U]	NA	1.0 U	10 U	NA	1.0 U	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	ug/L	NA	NA	1.0 U	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	ug/L	10 U [6.2 U]	NA	1.0 U	10 U	NA	1.0 U	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	39 [33]	NA	1.0 U	10 U	NA	0.15 J	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	10 U [6.2 U]	NA	NA	10 U	NA	NA	NA	NA	NA	0.97 J	NA	NA	NA	NA	NA
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	10 U [6.2 U]	NA	NA	10 U	NA	NA	NA	NA	NA	2.1	NA	NA	NA	NA	NA
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	500 U [310 U]	NA	10 UJ	500 U	NA	10 U	NA	NA	NA	50 U	NA	NA	NA	NA	NA
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	500 U [310 U]	NA	10 UJ	500 U	NA	10 U	NA	NA	NA	50 U	NA	NA	NA	NA	NA
3-Chloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	500 U [310 U]	NA	4.4 J	500 U	NA	10 UJ	NA	NA	NA	50 U	NA	NA	NA	NA	NA
Acetone	ug/L	1,000 U [620 U]	NA	10 U	1,000 U	NA	10 U	NA	NA	NA	100 U	NA	NA	NA	NA	NA
Acetonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	7.8 J [7.2 J]	26	26	91	18 B	18 B	36	44	12	12	5.0 U	1.0 U	1.0 U	2.0	2.0
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	10 U [6.2 U]	NA	1.0 U	10 U	NA	1.0 U	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA
Bromoform	ug/L	10 U [6.2 U]	NA	1.0 U	10 U	NA	1.0 U	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA
Bromomethane	ug/L	10 U [6.2 U]	NA	1.0 U	10 U	NA	1.0 U	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA
Carbon Disulfide	ug/L	500 U [310 U]	NA	1.3	500 U	NA	1.0 U	NA	NA	NA	50 U	NA	NA	NA	NA	NA
Carbon Tetrachloride	ug/L	10 U [6.2 U]	NA	1.0 U	10 U	NA	1.0 U	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA
Chlorobenzene	ug/L	10 U [6.2 U]	NA	1.0 U	10 U	NA	1.0 U	NA	NA	NA	13	NA	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	UST 7 BBL-MW2 4.7 - 14.2 06/18/96	UST 7 BBL-MW2 4.7 - 14.2 05/01/00	UST 7 BBL-MW2 4.7 - 14.2 05/19/00	UST 7 BBL-MW3 5.2 - 14.7 06/18/96	UST 7 BBL-MW3 5.2 - 14.7 05/01/00	UST 7 BBL-MW3 5.2 - 14.7 05/17/00	UST 7 BBL-MW3 5.2 - 14.7 02/06/06	UST 7 BBL-MW3 5.2 - 14.7 08/06/06	UST 7 BBL-MW4 5.2 - 14.7 06/01/96	UST 7 BBL-MW4 5.2 - 14.7 06/18/96	UST 7 BBL-MW4 5.2 - 14.7 07/31/98	UST 7 BBL-MW4 5.2 - 14.7 10/01/98	UST 7 BBL-MW4 5.2 - 14.7 10/27/98	UST 7 BBL-MW4 5.2 - 14.7 01/01/99	UST 7 BBL-MW4 5.2 - 14.7 01/28/99
Volatile Organics (Cont'd.)																
Chloroethane	ug/L	10 U [6.2 U]	NA	3.8	10 U	NA	1.0 U	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA
Chloroform	ug/L	10 U [6.2 U]	NA	1.0 U	10 U	NA	1.0 U	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA
Chloromethane	ug/L	10 U [6.2 U]	NA	1.4 J	10 U	NA	1.0 U	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	ug/L	10 U [6.2 U]	NA	0.50 U	10 U	NA	0.61	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	ug/L	10 U [6.2 U]	NA	1.0 U	10 U	NA	1.0 U	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA
Cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	10 U [6.2 U]	NA	1.0 U	10 U	NA	1.0 U	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	93 [92]	9.2	9.2	10 U	0.23 J	0.23 J	29	52	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	50 U [31 U]	NA	NA	50 U	NA	NA	NA	NA	NA	1.7 J	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	50 U [31 U]	NA	1.0 U	50 U	NA	1.0 U	NA	NA	NA	5.0 U	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	10 U [6.2 U]	NA	1.0 U	10 U	NA	1.0 U	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	10 U [6.2 U]	NA	1.0 U	10 U	NA	1.0 U	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA
Toluene	ug/L	10 U [6.2 U]	1.0	1.0 U	10 U	0.23 JB	1.0 U	2.5 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	10 U [6.2 U]	NA	0.50 U	10 U	NA	0.50 U	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	ug/L	10 U [6.2 U]	NA	1.0 U	10 U	NA	1.0 U	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	10 U [6.2 U]	NA	1.0 U	10 U	NA	1.3	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	10 U [6.2 U]	NA	1.0 U	10 U	NA	1.0 U	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA
Total 1,3-Dichloropropenes	ug/L	10 U [6.2 U]	NA	1.0 U	10 U	NA	1.0 U	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA
Total Xylenes	ug/L	35 U [28 U]	2.3	2.3	30 U	1.1	1.1	10	17	3.0 U	3.0 U	3.0 U	1.0 U	1.0 U	1.0 U	1.0 U

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ORGANIC COMPOUNDS

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	UST 7 BBL-MW2 4.7 - 14.2 06/18/96	UST 7 BBL-MW2 4.7 - 14.2 05/01/00	UST 7 BBL-MW2 4.7 - 14.2 05/19/00	UST 7 BBL-MW3 5.2 - 14.7 06/18/96	UST 7 BBL-MW3 5.2 - 14.7 05/01/00	UST 7 BBL-MW3 5.2 - 14.7 05/17/00	UST 7 BBL-MW3 5.2 - 14.7 02/06/06	UST 7 BBL-MW3 5.2 - 14.7 08/06/06	UST 7 BBL-MW4 5.2 - 14.7 06/01/96	UST 7 BBL-MW4 5.2 - 14.7 06/18/96	UST 7 BBL-MW4 5.2 - 14.7 07/31/98	UST 7 BBL-MW4 5.2 - 14.7 10/01/98	UST 7 BBL-MW4 5.2 - 14.7 10/27/98	UST 7 BBL-MW4 5.2 - 14.7 01/01/99	UST 7 BBL-MW4 5.2 - 14.7 01/28/99
Semivolatile Organics																
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Picoline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

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Semivolatile Organics (Cont'd.)																
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diallate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Semivolatile Organics (Cont'd.)																
Isophorone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isosafrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenacetin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pronamide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs																
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs-Dissolved																
Aroclor-1016 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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PCBs-Dissolved (Cont'd.)																
Aroclor-1248 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Organochlorine Pesticides																
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	0.2 U [0.2 U]	NA	NA	0.2 U	NA	NA	NA	NA	NA	0.2 U	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	0.2 U [0.2 U]	NA	NA	0.2 U	NA	NA	NA	NA	NA	0.2 U	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	0.4 U [0.4 U]	NA	NA	0.4 U	NA	NA	NA	NA	NA	0.4 U	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	0.2 UJ [0.2 U]	NA	NA	0.2 U	NA	NA	NA	NA	NA	0.2 U	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	0.2 U [0.2 U]	NA	NA	0.2 U	NA	NA	NA	NA	NA	0.2 U	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	0.2 U [0.2 U]	NA	NA	0.2 U	NA	NA	NA	NA	NA	0.2 U	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	0.2 UJ [0.2 U]	NA	NA	0.2 U	NA	NA	NA	NA	NA	0.2 U	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Organophosphate Pesticides																
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	UST 7 BBL-MW2 4.7 - 14.2 06/18/96	UST 7 BBL-MW2 4.7 - 14.2 05/01/00	UST 7 BBL-MW2 4.7 - 14.2 05/19/00	UST 7 BBL-MW3 5.2 - 14.7 06/18/96	UST 7 BBL-MW3 5.2 - 14.7 05/01/00	UST 7 BBL-MW3 5.2 - 14.7 05/17/00	UST 7 BBL-MW3 5.2 - 14.7 02/06/06	UST 7 BBL-MW3 5.2 - 14.7 08/06/06	UST 7 BBL-MW4 5.2 - 14.7 06/01/96	UST 7 BBL-MW4 5.2 - 14.7 06/18/96	UST 7 BBL-MW4 5.2 - 14.7 07/31/98	UST 7 BBL-MW4 5.2 - 14.7 10/01/98	UST 7 BBL-MW4 5.2 - 14.7 10/27/98	UST 7 BBL-MW4 5.2 - 14.7 01/01/99	UST 7 BBL-MW4 5.2 - 14.7 01/28/99
Organophosphate Pesticides (Cont'd.)																
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides																
2,4,5-T	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans																
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	UST 7 BBL-MW2 4.7 - 14.2 06/18/96	UST 7 BBL-MW2 4.7 - 14.2 05/01/00	UST 7 BBL-MW2 4.7 - 14.2 05/19/00	UST 7 BBL-MW3 5.2 - 14.7 06/18/96	UST 7 BBL-MW3 5.2 - 14.7 05/01/00	UST 7 BBL-MW3 5.2 - 14.7 05/17/00	UST 7 BBL-MW3 5.2 - 14.7 02/06/06	UST 7 BBL-MW3 5.2 - 14.7 08/06/06	UST 7 BBL-MW4 5.2 - 14.7 06/01/96	UST 7 BBL-MW4 5.2 - 14.7 06/18/96	UST 7 BBL-MW4 5.2 - 14.7 07/31/98	UST 7 BBL-MW4 5.2 - 14.7 10/01/98	UST 7 BBL-MW4 5.2 - 14.7 10/27/98	UST 7 BBL-MW4 5.2 - 14.7 01/01/99	UST 7 BBL-MW4 5.2 - 14.7 01/28/99
Dioxins/Furans (Cont'd.)																
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	UST 7 BBL-MW4 5.2 - 14.7 04/01/99	UST 7 BBL-MW4 5.2 - 14.7 04/12/99	UST 7 BBL-MW4 5.2 - 14.7 07/01/99	UST 7 BBL-MW4 5.2 - 14.7 07/14/99	UST 7 BBL-MW4 5.2 - 14.7 10/01/99	UST 7 BBL-MW4 5.2 - 14.7 10/22/99	UST 7 BBL-MW4 5.2 - 14.7 01/01/00	UST 7 BBL-MW4 5.2 - 14.7 05/01/00	UST 7 BBL-MW4 5.2 - 14.7 05/18/00	UST 7 BBL-MW4 5.2 - 14.7 08/01/00	UST 7 BBL-MW4 5.2 - 14.7 08/23/00	UST 7 BBL-MW4 5.2 - 14.7 10/01/00	UST 7 BBL-MW4 5.2 - 14.7 03/01/01	UST 7 BBL-MW4 5.2 - 14.7 05/01/01	UST 7 BBL-MW4 5.2 - 14.7 08/01/01	UST 7 BBL-MW4 5.2 - 14.7 02/11/02
Volatile Organics																	
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA	NA	NA	NA	NA	NA
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA	NA	NA	NA	NA	NA
3-Chloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	1.0	1.0	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.6	1.6	1.0 U	1.0 U	1.0	2.0	1.0 U [1.0 U]	1.0 U	1.0 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA
Bromoform	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA
Bromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	0.91 J	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	3.2	NA	NA	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	UST 7 BBL-MW4 5.2 - 14.7 04/01/99	UST 7 BBL-MW4 5.2 - 14.7 04/12/99	UST 7 BBL-MW4 5.2 - 14.7 07/01/99	UST 7 BBL-MW4 5.2 - 14.7 07/14/99	UST 7 BBL-MW4 5.2 - 14.7 10/01/99	UST 7 BBL-MW4 5.2 - 14.7 10/22/99	UST 7 BBL-MW4 5.2 - 14.7 01/01/00	UST 7 BBL-MW4 5.2 - 14.7 05/01/00	UST 7 BBL-MW4 5.2 - 14.7 05/18/00	UST 7 BBL-MW4 5.2 - 14.7 08/01/00	UST 7 BBL-MW4 5.2 - 14.7 08/23/00	UST 7 BBL-MW4 5.2 - 14.7 10/01/00	UST 7 BBL-MW4 5.2 - 14.7 03/01/01	UST 7 BBL-MW4 5.2 - 14.7 05/01/01	UST 7 BBL-MW4 5.2 - 14.7 08/01/01	UST 7 BBL-MW4 5.2 - 14.7 02/11/02
Volatile Organics (Cont'd.)																	
Chloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA
Chloroform	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA
Chloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	0.50 U	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	1.0 U	1.0 U	3.0	3.0	1.0 U	1.0 U	1.0 U	0.12 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	0.50 U	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA
Total 1,3-Dichloropropenes	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA
Total Xylenes	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U

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SAGINAW, MICHIGAN

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Semivolatile Organics																	
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Picoline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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ORGANIC COMPOUNDS

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Semivolatile Organics (Cont'd.)																	
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diallate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Semivolatile Organics (Cont'd.)																	
Isophorone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isosafrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenacetin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pronamide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs																	
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs-Dissolved																	
Aroclor-1016 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	UST 7 BBL-MW4 5.2 - 14.7 04/01/99	UST 7 BBL-MW4 5.2 - 14.7 04/12/99	UST 7 BBL-MW4 5.2 - 14.7 07/01/99	UST 7 BBL-MW4 5.2 - 14.7 07/14/99	UST 7 BBL-MW4 5.2 - 14.7 10/01/99	UST 7 BBL-MW4 5.2 - 14.7 10/22/99	UST 7 BBL-MW4 5.2 - 14.7 01/01/00	UST 7 BBL-MW4 5.2 - 14.7 05/01/00	UST 7 BBL-MW4 5.2 - 14.7 05/18/00	UST 7 BBL-MW4 5.2 - 14.7 08/01/00	UST 7 BBL-MW4 5.2 - 14.7 08/23/00	UST 7 BBL-MW4 5.2 - 14.7 10/01/00	UST 7 BBL-MW4 5.2 - 14.7 03/01/01	UST 7 BBL-MW4 5.2 - 14.7 05/01/01	UST 7 BBL-MW4 5.2 - 14.7 08/01/01	UST 7 BBL-MW4 5.2 - 14.7 02/11/02
PCBs-Dissolved (Cont'd.)																	
Aroclor-1248 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Organochlorine Pesticides																	
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Organophosphate Pesticides																	
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	UST 7 BBL-MW4 5.2 - 14.7 04/01/99	UST 7 BBL-MW4 5.2 - 14.7 04/12/99	UST 7 BBL-MW4 5.2 - 14.7 07/01/99	UST 7 BBL-MW4 5.2 - 14.7 07/14/99	UST 7 BBL-MW4 5.2 - 14.7 10/01/99	UST 7 BBL-MW4 5.2 - 14.7 10/22/99	UST 7 BBL-MW4 5.2 - 14.7 01/01/00	UST 7 BBL-MW4 5.2 - 14.7 05/01/00	UST 7 BBL-MW4 5.2 - 14.7 05/18/00	UST 7 BBL-MW4 5.2 - 14.7 08/01/00	UST 7 BBL-MW4 5.2 - 14.7 08/23/00	UST 7 BBL-MW4 5.2 - 14.7 10/01/00	UST 7 BBL-MW4 5.2 - 14.7 03/01/01	UST 7 BBL-MW4 5.2 - 14.7 05/01/01	UST 7 BBL-MW4 5.2 - 14.7 08/01/01	UST 7 BBL-MW4 5.2 - 14.7 02/11/02
Organophosphate Pesticides (Cont'd.)																	
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides																	
2,4,5-T	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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ORGANIC COMPOUNDS

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	UST 7 BBL-MW4 5.2 - 14.7 04/01/99	UST 7 BBL-MW4 5.2 - 14.7 04/12/99	UST 7 BBL-MW4 5.2 - 14.7 07/01/99	UST 7 BBL-MW4 5.2 - 14.7 07/14/99	UST 7 BBL-MW4 5.2 - 14.7 10/01/99	UST 7 BBL-MW4 5.2 - 14.7 10/22/99	UST 7 BBL-MW4 5.2 - 14.7 01/01/00	UST 7 BBL-MW4 5.2 - 14.7 05/01/00	UST 7 BBL-MW4 5.2 - 14.7 05/18/00	UST 7 BBL-MW4 5.2 - 14.7 08/01/00	UST 7 BBL-MW4 5.2 - 14.7 08/23/00	UST 7 BBL-MW4 5.2 - 14.7 10/01/00	UST 7 BBL-MW4 5.2 - 14.7 03/01/01	UST 7 BBL-MW4 5.2 - 14.7 05/01/01	UST 7 BBL-MW4 5.2 - 14.7 08/01/01	UST 7 BBL-MW4 5.2 - 14.7 02/11/02
Dioxins/Furans (Cont'd.)																	
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	UST 7 BBL-MW4 5.2 - 14.7 08/02/02	UST 7 BBL-MW4 5.2 - 14.7 03/03/03	UST 7 BBL-MW4 5.2 - 14.7 08/03/03	UST 7 BBL-MW4 5.2 - 14.7 02/04/04	UST 7 BBL-MW4 5.2 - 14.7 08/04/04	UST 7 BBL-MW4 5.2 - 14.7 02/22/05	UST 7 BBL-MW4 5.2 - 14.7 08/05/05	UST 7 BBL-MW4 5.2 - 14.7 08/23/05	UST 7 BBL-MW4 5.2 - 14.7 02/06/06	UST 7 BBL-MW4 5.2 - 14.7 08/06/06	UST 7 BBL-MW5 5.2 - 14.7 06/19/96	UST 7 BBL-MW5 5.2 - 14.7 05/01/00	UST 7 BBL-MW5 5.2 - 14.7 05/19/00	UST 7 MW-135S1 23.7 - 28.7 07/21/95	UST 7 MW-135S2 32 - 37 07/21/95
Volatile Organics																
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	8.3 U	NA	5.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	8.3 U	NA	5.0 U	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	8.3 U	NA	5.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	8.3 U	NA	5.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	8.3 U	NA	5.0 U	1.0 U	1.0 U
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	5.0 U	NA	5.0 U	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	5.0 U	NA	5.0 U	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	10 U	NA	5.0 U	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	8.3 U	NA	NA	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	8.3 U	NA	5.0 U	1.0 U	1.0 U
1,2-Dichloroethene (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	8.3 U	NA	5.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	3.7 J	NA	5.0 U	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	8.3 U	NA	NA	1.0 U	1.0 U
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	8.3 U	NA	NA	1.0 U	1.0 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	420 U	NA	50 U	50 UJ	50 UJ
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	420 U	NA	50 U	50 UJ	50 U
3-Chloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	420 U	NA	50 U	50 UJ	50 U
Acetone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	830 U	NA	50 U	50 UJ	50 UJ
Acetonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	1.0 U	1.0 U	1.0 U	0.33 J	0.25 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	290	89	89	1.0 U	1.0 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	8.3 U	NA	5.0 U	1.0 U	1.0 U
Bromoform	ug/L	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	8.3 U	NA	5.0 U	1.0 U	1.0 U
Bromomethane	ug/L	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	8.3 U	NA	5.0 U	1.0 U	1.0 U
Carbon Disulfide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	420 U	NA	5.0 U	50 U	50 U
Carbon Tetrachloride	ug/L	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	8.3 U	NA	5.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	8.3 U	NA	5.0 U	1.0 U	1.0 U

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TABLE A-1
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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
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SAGINAW, MICHIGAN

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Volatile Organics (Cont'd.)																
Chloroethane	ug/L	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	8.3 U	NA	1.8 J	1.0 U	1.0 U
Chloroform	ug/L	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	8.3 U	NA	5.0 U	1.0 U	1.0 U
Chloromethane	ug/L	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	8.3 U	NA	5.0 U	1.0 UJ	1.0 U
cis-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	8.3 U	NA	2.5 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.3 U	NA	5.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	8.3 U	NA	5.0 U	1.0 U	1.0 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	5.0 U	NA	5.0 U	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	29	1.5 J	1.5 J	1.0 U	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA	5.0 U	NA	5.0 U	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	2.0 U	NA	2.0 U	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	42 U	NA	NA	NA	NA
Methylene Chloride	ug/L	NA	NA	NA	NA	NA	5.0 U	NA	5.0 U	NA	NA	42 U	NA	5.0 U	1.0 U	1.0 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	5.0 U	NA	5.0 U	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	8.3 U	NA	5.0 U	1.0 U	1.0 U
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	8.3 U	NA	5.0 U	1.0 U	1.0 U
Toluene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	8.3 U	1.3 J	5.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	8.3 U	NA	2.5 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.3 U	NA	5.0 U	1.0 U	1.0 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	8.3 U	NA	5.0 U	1.0 U	1.0 U
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	8.3 U	NA	5.0 U	1.0 U	1.0 U
Total 1,3-Dichloropropenes	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.3 U	NA	5.0 U	1.0 U	1.0 U
Total Xylenes	ug/L	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	2.0 U	2.0 U	3.0 U	3.0 U	44 U	6.2	6.2	3.0 U	3.0 U

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SAGINAW, MICHIGAN

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Semivolatile Organics																
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	5.0 UJ
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	5.0 UJ
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	50 U	50 U
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	5.0 U
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	5.0 U
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	5.0 U
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	20 U	20 U
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	5.0 UJ
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	5.0 UJ
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	5.0 UJ
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	5.0 U
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	5.0 UJ
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	5.0 U
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	20 U	20 UJ
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	5.0 U
2-Picoline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	20 U	20 UJ
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	20 U	20 UJ
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	20 U	20 U
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	5.0 UJ
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	5.0 U
4-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	20 U	20 UJ
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	5.0 UJ
4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	5.0 U

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Semivolatile Organics (Cont'd.)																
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	20 U	20 UJ
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	20 U	20 U
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	5.0 UJ
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	5.0 UJ
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	5.0 UJ
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	5.0 UJ
Benzo(a)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	5.0 UJ
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	5.0 UJ
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	5.0 UJ
Benzo(k)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	5.0 UJ
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	5.0 UJ
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	5.0 UJ
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.91 U	5.0 UJ
Butylbenzylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	5.0 UJ
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U	10 UJ
Chrysene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	5.0 UJ
Diallate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	5.0 UJ
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	5.0 UJ
Diethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	3.5 J
Dimethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	5.0 UJ
Di-n-Butylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	5.0 UJ
Di-n-Octylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	5.0 UJ
Diphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	5.0 U
Fluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	5.0 U
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	5.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	5.0 U
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	5.0 UJ
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	5.0 UJ
Hexachloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	5.0 UJ

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	UST 7 BBL-MW4 5.2 - 14.7 08/02/02	UST 7 BBL-MW4 5.2 - 14.7 03/03/03	UST 7 BBL-MW4 5.2 - 14.7 08/03/03	UST 7 BBL-MW4 5.2 - 14.7 02/04/04	UST 7 BBL-MW4 5.2 - 14.7 08/04/04	UST 7 BBL-MW4 5.2 - 14.7 02/22/05	UST 7 BBL-MW4 5.2 - 14.7 08/05/05	UST 7 BBL-MW4 5.2 - 14.7 08/23/05	UST 7 BBL-MW4 5.2 - 14.7 02/06/06	UST 7 BBL-MW4 5.2 - 14.7 08/06/06	UST 7 BBL-MW5 5.2 - 14.7 06/19/96	UST 7 BBL-MW5 5.2 - 14.7 05/01/00	UST 7 BBL-MW5 5.2 - 14.7 05/19/00	UST 7 MW-135S1 23.7 - 28.7 07/21/95	UST 7 MW-135S2 32 - 37 07/21/95
Semivolatile Organics (Cont'd.)																
Isophorone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	5.0 UJ
Isosafrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	5.0 UJ
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	5.0 UJ
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	5.0 UJ
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	5.0 UJ
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	25 U	25 U
Phenacetin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	5.0 UJ
Phenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	5.0 U
Pronamide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	5.0 UJ
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	5.0 U
PCBs																
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs-Dissolved																
Aroclor-1016 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U
Aroclor-1221 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U
Aroclor-1232 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.4 U	0.4 U
Aroclor-1242 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U

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PCBs-Dissolved (Cont'd.)																
Aroclor-1248 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U
Aroclor-1254 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U
Aroclor-1260 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.4 U	0.4 U
Organochlorine Pesticides																
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	NA	NA	0.2 U	0.2 U
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	NA	NA	0.2 U	0.2 U
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.4 U	NA	NA	0.4 U	0.4 U
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	NA	NA	0.2 U	0.2 U
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 UJ	NA	NA	0.2 U	0.2 U
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	NA	NA	0.2 U	0.2 U
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	NA	NA	0.2 U	0.2 U
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Organophosphate Pesticides																
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Organophosphate Pesticides (Cont'd.)																
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides																
2,4,5-T	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans																
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	UST 7 BBL-MW4 5.2 - 14.7 08/02/02	UST 7 BBL-MW4 5.2 - 14.7 03/03/03	UST 7 BBL-MW4 5.2 - 14.7 08/03/03	UST 7 BBL-MW4 5.2 - 14.7 02/04/04	UST 7 BBL-MW4 5.2 - 14.7 08/04/04	UST 7 BBL-MW4 5.2 - 14.7 02/22/05	UST 7 BBL-MW4 5.2 - 14.7 08/05/05	UST 7 BBL-MW4 5.2 - 14.7 08/23/05	UST 7 BBL-MW4 5.2 - 14.7 02/06/06	UST 7 BBL-MW4 5.2 - 14.7 08/06/06	UST 7 BBL-MW5 5.2 - 14.7 06/19/96	UST 7 BBL-MW5 5.2 - 14.7 05/01/00	UST 7 BBL-MW5 5.2 - 14.7 05/19/00	UST 7 MW-135S1 23.7 - 28.7 07/21/95	UST 7 MW-135S2 32 - 37 07/21/95
Dioxins/Furans (Cont'd.)																
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	UST 7 MW-135S3 42.5 - 47.5 07/21/95	UST 7 MW-135WT 5 - 15 07/21/95	UST 7 MW-135WT 5 - 15 06/18/96	UST 7 MW-135WT 5 - 15 07/31/98	UST 7 MW-135WT 5 - 15 10/01/98	UST 7 MW-135WT 5 - 15 10/27/98	UST 7 MW-135WT 5 - 15 01/01/99	UST 7 MW-135WT 5 - 15 01/28/99	UST 7 MW-135WT 5 - 15 04/01/99	UST 7 MW-135WT 5 - 15 04/12/99	UST 7 MW-135WT 5 - 15 07/01/99	UST 7 MW-135WT 5 - 15 07/14/99	UST 7 MW-135WT 5 - 15 10/01/99	UST 7 MW-135WT 5 - 15 10/22/99
Volatile Organics															
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	ug/L	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	50 UJ	50 UJ	50 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	50 UJ	50 UJ	50 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Chloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 UJ	50 UJ	50 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/L	50 UJ	50 UJ	100 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	1.0 U	1.0 U	2.0 J	5.0 U	1.0	1.0	1.0 U	1.0 U	1.0 U	1.0 U	2.0	2.0	2.0	2.0
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	ug/L	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	ug/L	50 U	50 U	50 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	ug/L	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	UST 7 MW-135S3 42.5 - 47.5 07/21/95	UST 7 MW-135WT 5 - 15 07/21/95	UST 7 MW-135WT 5 - 15 06/18/96	UST 7 MW-135WT 5 - 15 07/31/98	UST 7 MW-135WT 5 - 15 10/01/98	UST 7 MW-135WT 5 - 15 10/27/98	UST 7 MW-135WT 5 - 15 01/01/99	UST 7 MW-135WT 5 - 15 01/28/99	UST 7 MW-135WT 5 - 15 04/01/99	UST 7 MW-135WT 5 - 15 04/12/99	UST 7 MW-135WT 5 - 15 07/01/99	UST 7 MW-135WT 5 - 15 07/14/99	UST 7 MW-135WT 5 - 15 10/01/99	UST 7 MW-135WT 5 - 15 10/22/99
Volatile Organics (Cont'd.)															
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	ug/L	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	ug/L	1.0 UJ	1.0 UJ	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	1.0 U	1.0 U	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.0	3.0	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total 1,3-Dichloropropenes	ug/L	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Xylenes	ug/L	3.0 U	3.0 U	3.0 U	3.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U

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SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	UST 7 MW-135S3 42.5 - 47.5 07/21/95	UST 7 MW-135WT 5 - 15 07/21/95	UST 7 MW-135WT 5 - 15 06/18/96	UST 7 MW-135WT 5 - 15 07/31/98	UST 7 MW-135WT 5 - 15 10/01/98	UST 7 MW-135WT 5 - 15 10/27/98	UST 7 MW-135WT 5 - 15 01/01/99	UST 7 MW-135WT 5 - 15 01/28/99	UST 7 MW-135WT 5 - 15 04/01/99	UST 7 MW-135WT 5 - 15 04/12/99	UST 7 MW-135WT 5 - 15 07/01/99	UST 7 MW-135WT 5 - 15 07/14/99	UST 7 MW-135WT 5 - 15 10/01/99	UST 7 MW-135WT 5 - 15 10/22/99
Semivolatile Organics															
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	50 U	50 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	20 U	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	20 U	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Picoline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	20 U	20 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	20 U	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	20 U	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	20 U	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	ug/L	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	UST 7 MW-135S3 42.5 - 47.5 07/21/95	UST 7 MW-135WT 5 - 15 07/21/95	UST 7 MW-135WT 5 - 15 06/18/96	UST 7 MW-135WT 5 - 15 07/31/98	UST 7 MW-135WT 5 - 15 10/01/98	UST 7 MW-135WT 5 - 15 10/27/98	UST 7 MW-135WT 5 - 15 01/01/99	UST 7 MW-135WT 5 - 15 01/28/99	UST 7 MW-135WT 5 - 15 04/01/99	UST 7 MW-135WT 5 - 15 04/12/99	UST 7 MW-135WT 5 - 15 07/01/99	UST 7 MW-135WT 5 - 15 07/14/99	UST 7 MW-135WT 5 - 15 10/01/99	UST 7 MW-135WT 5 - 15 10/22/99
Semivolatile Organics (Cont'd.)															
4-Nitroaniline	ug/L	20 U	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	20 U	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	5.0 U	5.0 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	0.57 U	2.8 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	5.0 U	5.0 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	10 U	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	5.0 U	5.0 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diallate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	ug/L	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

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Semivolatile Organics (Cont'd.)															
Isophorone	ug/L	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isosafrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	25 U	25 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenacetin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pronamide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	5.0 U	5.0 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs															
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs-Dissolved															
Aroclor-1016 (Dissolved)	ug/L	0.2 U	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (Dissolved)	ug/L	0.2 U	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (Dissolved)	ug/L	0.4 U	0.4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (Dissolved)	ug/L	0.2 U	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

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PCBs-Dissolved (Cont'd.)															
Aroclor-1248 (Dissolved)	ug/L	0.2 U	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (Dissolved)	ug/L	0.2 U	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (Dissolved)	ug/L	0.2 U	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	0.4 U	0.4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Organochlorine Pesticides															
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	0.2 U	0.2 U	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	0.2 U	0.2 U	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	0.4 U	0.4 U	0.4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	0.2 U	0.2 U	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	0.2 U	0.2 U	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	0.2 U	0.2 U	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	0.2 U	0.2 U	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Organophosphate Pesticides															
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Organophosphate Pesticides (Cont'd.)															
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides															
2,4,5-T	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans															
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	UST 7 MW-135S3 42.5 - 47.5 07/21/95	UST 7 MW-135WT 5 - 15 07/21/95	UST 7 MW-135WT 5 - 15 06/18/96	UST 7 MW-135WT 5 - 15 07/31/98	UST 7 MW-135WT 5 - 15 10/01/98	UST 7 MW-135WT 5 - 15 10/27/98	UST 7 MW-135WT 5 - 15 01/01/99	UST 7 MW-135WT 5 - 15 01/28/99	UST 7 MW-135WT 5 - 15 04/01/99	UST 7 MW-135WT 5 - 15 04/12/99	UST 7 MW-135WT 5 - 15 07/01/99	UST 7 MW-135WT 5 - 15 07/14/99	UST 7 MW-135WT 5 - 15 10/01/99	UST 7 MW-135WT 5 - 15 10/22/99
Dioxins/Furans (Cont'd.)															
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	UST 7 MW-135WT 5 - 15 01/01/00	UST 7 MW-135WT 5 - 15 05/01/00	UST 7 MW-135WT 5 - 15 05/18/00	UST 7 MW-135WT 5 - 15 08/01/00	UST 7 MW-135WT 5 - 15 08/23/00	UST 7 MW-135WT 5 - 15 10/01/00	UST 7 MW-135WT 5 - 15 03/01/01	UST 7 MW-135WT 5 - 15 05/01/01	UST 7 MW-135WT 5 - 15 08/01/01	UST 7 MW-135WT 5 - 15 02/11/02	UST 7 MW-135WT 5 - 15 08/02/02	UST 7 MW-135WT 5 - 15 03/03/03	UST 7 MW-135WT 5 - 15 08/03/03
Volatile Organics														
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	ug/L	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/L	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	ug/L	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	ug/L	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	ug/L	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	ug/L	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Chloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	1.0 U	0.30 J	0.30 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	ug/L	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	ug/L	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	ug/L	NA	NA	0.82 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	ug/L	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/L	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	UST 7 MW-135WT 5 - 15 01/01/00	UST 7 MW-135WT 5 - 15 05/01/00	UST 7 MW-135WT 5 - 15 05/18/00	UST 7 MW-135WT 5 - 15 08/01/00	UST 7 MW-135WT 5 - 15 08/23/00	UST 7 MW-135WT 5 - 15 10/01/00	UST 7 MW-135WT 5 - 15 03/01/01	UST 7 MW-135WT 5 - 15 05/01/01	UST 7 MW-135WT 5 - 15 08/01/01	UST 7 MW-135WT 5 - 15 02/11/02	UST 7 MW-135WT 5 - 15 08/02/02	UST 7 MW-135WT 5 - 15 03/03/03	UST 7 MW-135WT 5 - 15 08/03/03
Volatile Organics (Cont'd.)														
Chloroethane	ug/L	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	ug/L	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	ug/L	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	ug/L	NA	NA	0.50 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	ug/L	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	1.0 U	0.12 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	2.0 B
trans-1,2-Dichloroethene	ug/L	NA	NA	0.50 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	ug/L	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total 1,3-Dichloropropenes	ug/L	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Xylenes	ug/L	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U

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TABLE A-1
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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	UST 7 MW-135WT 5 - 15 01/01/00	UST 7 MW-135WT 5 - 15 05/01/00	UST 7 MW-135WT 5 - 15 05/18/00	UST 7 MW-135WT 5 - 15 08/01/00	UST 7 MW-135WT 5 - 15 08/23/00	UST 7 MW-135WT 5 - 15 10/01/00	UST 7 MW-135WT 5 - 15 03/01/01	UST 7 MW-135WT 5 - 15 05/01/01	UST 7 MW-135WT 5 - 15 08/01/01	UST 7 MW-135WT 5 - 15 02/11/02	UST 7 MW-135WT 5 - 15 08/02/02	UST 7 MW-135WT 5 - 15 03/03/03	UST 7 MW-135WT 5 - 15 08/03/03
Semivolatile Organics														
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Picoline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	UST 7 MW-135WT 5 - 15 01/01/00	UST 7 MW-135WT 5 - 15 05/01/00	UST 7 MW-135WT 5 - 15 05/18/00	UST 7 MW-135WT 5 - 15 08/01/00	UST 7 MW-135WT 5 - 15 08/23/00	UST 7 MW-135WT 5 - 15 10/01/00	UST 7 MW-135WT 5 - 15 03/01/01	UST 7 MW-135WT 5 - 15 05/01/01	UST 7 MW-135WT 5 - 15 08/01/01	UST 7 MW-135WT 5 - 15 02/11/02	UST 7 MW-135WT 5 - 15 08/02/02	UST 7 MW-135WT 5 - 15 03/03/03	UST 7 MW-135WT 5 - 15 08/03/03
Semivolatile Organics (Cont'd.)														
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diallate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	UST 7 MW-135WT 5 - 15 01/01/00	UST 7 MW-135WT 5 - 15 05/01/00	UST 7 MW-135WT 5 - 15 05/18/00	UST 7 MW-135WT 5 - 15 08/01/00	UST 7 MW-135WT 5 - 15 08/23/00	UST 7 MW-135WT 5 - 15 10/01/00	UST 7 MW-135WT 5 - 15 03/01/01	UST 7 MW-135WT 5 - 15 05/01/01	UST 7 MW-135WT 5 - 15 08/01/01	UST 7 MW-135WT 5 - 15 02/11/02	UST 7 MW-135WT 5 - 15 08/02/02	UST 7 MW-135WT 5 - 15 03/03/03	UST 7 MW-135WT 5 - 15 08/03/03
Semivolatile Organics (Cont'd.)														
Isophorone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isosafrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenacetin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pronamide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs														
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs-Dissolved														
Aroclor-1016 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

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PCBs-Dissolved (Cont'd.)														
Aroclor-1248 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Organochlorine Pesticides														
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Organophosphate Pesticides														
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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ORGANIC COMPOUNDS

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

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Organophosphate Pesticides (Cont'd.)														
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides														
2,4,5-T	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans														
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	UST 7 MW-135WT 5 - 15 01/01/00	UST 7 MW-135WT 5 - 15 05/01/00	UST 7 MW-135WT 5 - 15 05/18/00	UST 7 MW-135WT 5 - 15 08/01/00	UST 7 MW-135WT 5 - 15 08/23/00	UST 7 MW-135WT 5 - 15 10/01/00	UST 7 MW-135WT 5 - 15 03/01/01	UST 7 MW-135WT 5 - 15 05/01/01	UST 7 MW-135WT 5 - 15 08/01/01	UST 7 MW-135WT 5 - 15 02/11/02	UST 7 MW-135WT 5 - 15 08/02/02	UST 7 MW-135WT 5 - 15 03/03/03	UST 7 MW-135WT 5 - 15 08/03/03
Dioxins/Furans (Cont'd.)														
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	UST 7 MW-135WT 5 - 15 02/04/04	UST 7 MW-135WT 5 - 15 08/04/04	UST 7 MW-135WT 5 - 15 02/21/05	UST 7 MW-135WT 5 - 15 02/22/05	UST 7 MW-135WT 5 - 15 08/05/05	UST 7 MW-135WT 5 - 15 08/23/05	UST 7 MW-135WT 5 - 15 02/06/06	UST 7 MW-135WT 5 - 15 08/06/06	UST 7 UST7-1 5 - 10 06/19/96	UST 7 UST7-1 5 - 10 05/01/00	UST 7 UST7-1 5 - 10 05/18/00	UST 7 UST7-2 5.3 - 10.3 06/01/94	UST 7 UST7-2 5.3 - 10.3 06/08/94	UST 7 UST7-2 5.3 - 10.3 06/01/96	UST 7 UST7-2 5.3 - 10.3 06/19/96
Volatile Organics																
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	25 U	NA	5.0 U	NA	NA	NA	120 U
1,1,2,2-Tetrachloroethane	ug/L	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	25 U	NA	5.0 U	NA	NA	NA	120 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	25 U	NA	5.0 U	NA	NA	NA	120 U
1,1-Dichloroethane	ug/L	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	25 U	NA	5.0 U	NA	NA	NA	120 U
1,1-Dichloroethene	ug/L	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	25 U	NA	5.0 U	NA	NA	NA	120 U
1,1-Dichloropropene	ug/L	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	5.0 U	NA	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	5.0 U	NA	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	25 U	NA	5.0 U	NA	NA	NA	1,700
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	25 U	NA	NA	NA	NA	NA	120 U
1,2-Dichloroethane	ug/L	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	25 U	NA	5.0 U	NA	NA	NA	120 U
1,2-Dichloroethene (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	NA	NA	NA	NA
1,2-Dichloropropane	ug/L	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	25 U	NA	5.0 U	NA	NA	NA	120 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	25 U	NA	5.0 U	NA	NA	NA	450
1,3-Dichlorobenzene	ug/L	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	25 U	NA	NA	NA	NA	NA	120 U
1,3-Dichloropropane	ug/L	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	25 U	NA	NA	NA	NA	NA	120 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1,200 U	NA	4.2 J	NA	NA	NA	6,200 U
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1,200 U	NA	50 U	NA	NA	NA	6,200 U
3-Chloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1,200 U	NA	50 U	NA	NA	NA	6,200 U
Acetone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	2,500 U	NA	50 U	NA	NA	NA	12,000 U
Acetonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U [1.0 U]	290	97	97	2,100	2,100	950	950
Bromobenzene	ug/L	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	25 U	NA	5.0 U	NA	NA	NA	120 U
Bromoform	ug/L	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	25 U	NA	5.0 U	NA	NA	NA	120 U
Bromomethane	ug/L	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	25 U	NA	5.0 U	NA	NA	NA	120 U
Carbon Disulfide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1,200 U	NA	5.0 U	NA	NA	NA	6,200 U
Carbon Tetrachloride	ug/L	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	25 U	NA	5.0 U	NA	NA	NA	120 U
Chlorobenzene	ug/L	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	25 U	NA	5.0 U	NA	NA	NA	120 U

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ORGANIC COMPOUNDS

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	UST 7 MW-135WT 5 - 15 02/04/04	UST 7 MW-135WT 5 - 15 08/04/04	UST 7 MW-135WT 5 - 15 02/21/05	UST 7 MW-135WT 5 - 15 02/22/05	UST 7 MW-135WT 5 - 15 08/05/05	UST 7 MW-135WT 5 - 15 08/23/05	UST 7 MW-135WT 5 - 15 02/06/06	UST 7 MW-135WT 5 - 15 08/06/06	UST 7 UST7-1 5 - 10 06/19/96	UST 7 UST7-1 5 - 10 05/01/00	UST 7 UST7-1 5 - 10 05/18/00	UST 7 UST7-2 5.3 - 10.3 06/01/94	UST 7 UST7-2 5.3 - 10.3 06/08/94	UST 7 UST7-2 5.3 - 10.3 06/01/96	UST 7 UST7-2 5.3 - 10.3 06/19/96
Volatile Organics (Cont'd.)																
Chloroethane	ug/L	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	25 U	NA	5.0 U	NA	NA	NA	120 U
Chloroform	ug/L	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	25 U	NA	5.0 U	NA	NA	NA	120 U
Chloromethane	ug/L	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	25 U	NA	5.0 U	NA	NA	NA	120 U
cis-1,2-Dichloroethene	ug/L	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	25 U	NA	2.5 U	NA	NA	NA	120 U
cis-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	25 U	NA	5.0 U	NA	NA	NA	120 U
Cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	25 U	NA	5.0 U	NA	NA	NA	120 U
Dibromomethane	ug/L	NA	NA	NA	5.0 U	NA	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U [1.0 U]	25 U	5.0 U	5.0 U	100 U	100 U	1,700	1,700
Hexachlorobutadiene	ug/L	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	5.0 U	NA	5.2	NA	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	2.0 U	NA	2.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	120 U	NA	NA	NA	NA	NA	620 U
Methylene Chloride	ug/L	NA	NA	NA	5.0 U	NA	5.0 U	NA	NA	120 U	NA	5.0 U	NA	NA	NA	620 U
Naphthalene	ug/L	NA	NA	NA	5.0 U	NA	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	25 U	NA	5.0 U	NA	NA	NA	120 U
tert-Butylbenzene	ug/L	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	25 U	NA	5.0 U	NA	NA	NA	120 U
Toluene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U [1.0 U]	25 U	0.68 J	5.0 U	3,100	3,100	120 U	120 U
trans-1,2-Dichloroethene	ug/L	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	25 U	NA	2.5 U	NA	NA	NA	120 U
trans-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	25 U	NA	5.0 U	NA	NA	NA	120 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	25 U	NA	5.0 U	NA	NA	NA	120 U
Trichlorofluoromethane	ug/L	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	25 U	NA	5.0 U	NA	NA	NA	120 U
Total 1,3-Dichloropropenes	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	25 U	NA	5.0 U	NA	NA	NA	120 U
Total Xylenes	ug/L	1.0 U	2.0 U	3.0 U	2.0 U	2.0 U	2.0 U	3.0 U [3.0 U]	3.0 U [3.0 U]	75 U	5.0 U	5.0 U	9,800	9,800	3,600	3,600

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	UST 7 MW-135WT 5 - 15 02/04/04	UST 7 MW-135WT 5 - 15 08/04/04	UST 7 MW-135WT 5 - 15 02/21/05	UST 7 MW-135WT 5 - 15 02/22/05	UST 7 MW-135WT 5 - 15 08/05/05	UST 7 MW-135WT 5 - 15 08/23/05	UST 7 MW-135WT 5 - 15 02/06/06	UST 7 MW-135WT 5 - 15 08/06/06	UST 7 UST7-1 5 - 10 06/19/96	UST 7 UST7-1 5 - 10 05/01/00	UST 7 UST7-1 5 - 10 05/18/00	UST 7 UST7-2 5.3 - 10.3 06/01/94	UST 7 UST7-2 5.3 - 10.3 06/08/94	UST 7 UST7-2 5.3 - 10.3 06/01/96	UST 7 UST7-2 5.3 - 10.3 06/19/96
Semivolatile Organics																
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Picoline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	UST 7 MW-135WT 5 - 15 02/04/04	UST 7 MW-135WT 5 - 15 08/04/04	UST 7 MW-135WT 5 - 15 02/21/05	UST 7 MW-135WT 5 - 15 02/22/05	UST 7 MW-135WT 5 - 15 08/05/05	UST 7 MW-135WT 5 - 15 08/23/05	UST 7 MW-135WT 5 - 15 02/06/06	UST 7 MW-135WT 5 - 15 08/06/06	UST 7 UST7-1 5 - 10 06/19/96	UST 7 UST7-1 5 - 10 05/01/00	UST 7 UST7-1 5 - 10 05/18/00	UST 7 UST7-2 5.3 - 10.3 06/01/94	UST 7 UST7-2 5.3 - 10.3 06/08/94	UST 7 UST7-2 5.3 - 10.3 06/01/96	UST 7 UST7-2 5.3 - 10.3 06/19/96
Semivolatile Organics (Cont'd.)																
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diallate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Semivolatile Organics (Cont'd.)																
Isophorone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isosafrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenacetin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pronamide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs																
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs-Dissolved																
Aroclor-1016 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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ORGANIC COMPOUNDS

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PCBs-Dissolved (Cont'd.)																
Aroclor-1248 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Organochlorine Pesticides																
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	NA	NA	NA	NA	NA	0.2 U
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	NA	NA	NA	NA	NA	0.2 U
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	0.4 U	NA	NA	NA	NA	NA	0.4 U
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	NA	NA	NA	NA	NA	0.2 U
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	NA	NA	NA	NA	NA	0.2 U
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	NA	NA	NA	NA	NA	0.2 U
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	NA	NA	NA	NA	NA	0.2 U
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Organophosphate Pesticides																
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	UST 7 MW-135WT 5 - 15 02/04/04	UST 7 MW-135WT 5 - 15 08/04/04	UST 7 MW-135WT 5 - 15 02/21/05	UST 7 MW-135WT 5 - 15 02/22/05	UST 7 MW-135WT 5 - 15 08/05/05	UST 7 MW-135WT 5 - 15 08/23/05	UST 7 MW-135WT 5 - 15 02/06/06	UST 7 MW-135WT 5 - 15 08/06/06	UST 7 UST7-1 5 - 10 06/19/96	UST 7 UST7-1 5 - 10 05/01/00	UST 7 UST7-1 5 - 10 05/18/00	UST 7 UST7-2 5.3 - 10.3 06/01/94	UST 7 UST7-2 5.3 - 10.3 06/08/94	UST 7 UST7-2 5.3 - 10.3 06/01/96	UST 7 UST7-2 5.3 - 10.3 06/19/96
Organophosphate Pesticides (Cont'd.)																
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides																
2,4,5-T	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans																
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	UST 7 MW-135WT 5 - 15 02/04/04	UST 7 MW-135WT 5 - 15 08/04/04	UST 7 MW-135WT 5 - 15 02/21/05	UST 7 MW-135WT 5 - 15 02/22/05	UST 7 MW-135WT 5 - 15 08/05/05	UST 7 MW-135WT 5 - 15 08/23/05	UST 7 MW-135WT 5 - 15 02/06/06	UST 7 MW-135WT 5 - 15 08/06/06	UST 7 UST7-1 5 - 10 06/19/96	UST 7 UST7-1 5 - 10 05/01/00	UST 7 UST7-1 5 - 10 05/18/00	UST 7 UST7-2 5.3 - 10.3 06/01/94	UST 7 UST7-2 5.3 - 10.3 06/08/94	UST 7 UST7-2 5.3 - 10.3 06/01/96	UST 7 UST7-2 5.3 - 10.3 06/19/96
Dioxins/Furans (Cont'd.)																
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID:		UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7
Sample Depth (feet):		UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2
		5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3
Date Collected:	Units	07/31/98	10/01/98	10/27/98	01/01/99	01/28/99	04/01/99	04/12/99	07/01/99	07/14/99	10/01/99	10/22/99	01/01/00	05/01/00	05/17/00	08/01/00	08/23/00	10/01/00
Volatile Organics																		
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	50 U	NA	NA	NA
1,1,2,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	50 U	NA	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	50 U	NA	NA	NA
1,1-Dichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	50 U	NA	NA	NA
1,1-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	50 U	NA	NA	NA
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1,500	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	50 U	NA	NA	NA
1,2-Dichloroethene (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	50 U	NA	NA	NA
1,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	50 U	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	750	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	500 U	NA	NA	NA
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	500 U	NA	NA	NA
3-Chloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	500 U	NA	NA	NA
Acetone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	500 U	NA	NA	NA
Acetonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	6.0	1.0 U	1.0 U	5.0	5.0	10 U	10 U	10 U	10 U	10 [10 U]	10 [10 U]	2.0 [5.0]	1,500	1,500	4.0	4.0	50
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	50 U	NA	NA	NA
Bromoform	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	50 U	NA	NA	NA
Bromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	50 U	NA	NA	NA
Carbon Disulfide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	50 U	NA	NA	NA
Carbon Tetrachloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	50 U	NA	NA	NA
Chlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	50 U	NA	NA	NA

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID:	Units	UST 7 UST7-2	UST 7 UST7-2	UST 7 UST7-2	UST 7 UST7-2	UST 7 UST7-2	UST 7 UST7-2	UST 7 UST7-2	UST 7 UST7-2	UST 7 UST7-2	UST 7 UST7-2	UST 7 UST7-2	UST 7 UST7-2	UST 7 UST7-2	UST 7 UST7-2	UST 7 UST7-2	UST 7 UST7-2	UST 7 UST7-2
Sample Depth (feet):		5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3
Date Collected:		07/31/98	10/01/98	10/27/98	01/01/99	01/28/99	04/01/99	04/12/99	07/01/99	07/14/99	10/01/99	10/22/99	01/01/00	05/01/00	05/17/00	08/01/00	08/23/00	10/01/00
Volatile Organics (Cont'd.)																		
Chloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	50 U	NA	NA	NA
Chloroform	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	50 U	NA	NA	NA
Chloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	50 U	NA	NA	NA
cis-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	25 U	NA	NA	NA
cis-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	50 U	NA	NA	NA
Cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	50 U	NA	NA	NA
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	17	2.0	2.0	23	23	40	40	20	20	20 [20]	20 [20]	1.0 U [5.0]	1,200	1,200	1.0	1.0	3.0
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	50 U	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	50 U	NA	NA	NA
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	50 U	NA	NA	NA
Toluene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	20	20	10 U [10 U]	10 U [10 U]	1.0 U [1.0 U]	25 J	25 J	1.0 U	1.0 U	1.0
trans-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	25 U	NA	NA	NA
trans-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	50 U	NA	NA	NA
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	50 U	NA	NA	NA
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	50 U	NA	NA	NA
Total 1,3-Dichloropropenes	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	50 U	NA	NA	NA
Total Xylenes	ug/L	6.0	2.0 U	2.0 U	7.0	7.0	20	20	10	10	10 [10]	10 [10]	1.0 [5.0]	1,200	1,200	1.0 U	1.0 U	3.0

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID:		UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7
Sample Depth (feet):		UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2
Date Collected:	Units	5.3 - 10.3 07/31/98	5.3 - 10.3 10/01/98	5.3 - 10.3 10/27/98	5.3 - 10.3 01/01/99	5.3 - 10.3 01/28/99	5.3 - 10.3 04/01/99	5.3 - 10.3 04/12/99	5.3 - 10.3 07/01/99	5.3 - 10.3 07/14/99	5.3 - 10.3 10/01/99	5.3 - 10.3 10/22/99	5.3 - 10.3 01/01/00	5.3 - 10.3 05/01/00	5.3 - 10.3 05/17/00	5.3 - 10.3 08/01/00	5.3 - 10.3 08/23/00	5.3 - 10.3 10/01/00
Semivolatile Organics																		
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Picoline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID:		UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7
Sample Depth (feet):		UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2
		5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3
Date Collected:	Units	07/31/98	10/01/98	10/27/98	01/01/99	01/28/99	04/01/99	04/12/99	07/01/99	07/14/99	10/01/99	10/22/99	01/01/00	05/01/00	05/17/00	08/01/00	08/23/00	10/01/00
Semivolatile Organics (Cont'd.)																		
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diallate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID:		UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7
Sample Depth (feet):		UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2
		5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3
Date Collected:	Units	07/31/98	10/01/98	10/27/98	01/01/99	01/28/99	04/01/99	04/12/99	07/01/99	07/14/99	10/01/99	10/22/99	01/01/00	05/01/00	05/17/00	08/01/00	08/23/00	10/01/00
Semivolatile Organics (Cont'd.)																		
Isophorone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isosafrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenacetin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pronamide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs																		
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs-Dissolved																		
Aroclor-1016 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID:		UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7
Sample Depth (feet):		UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2
		5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3
Date Collected:	Units	07/31/98	10/01/98	10/27/98	01/01/99	01/28/99	04/01/99	04/12/99	07/01/99	07/14/99	10/01/99	10/22/99	01/01/00	05/01/00	05/17/00	08/01/00	08/23/00	10/01/00
PCBs-Dissolved (Cont'd.)																		
Aroclor-1248 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Organochlorine Pesticides																		
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Organophosphate Pesticides																		
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID:	Units	UST 7 UST7-2	UST 7 UST7-2	UST 7 UST7-2	UST 7 UST7-2	UST 7 UST7-2	UST 7 UST7-2	UST 7 UST7-2	UST 7 UST7-2	UST 7 UST7-2	UST 7 UST7-2	UST 7 UST7-2	UST 7 UST7-2	UST 7 UST7-2	UST 7 UST7-2	UST 7 UST7-2	UST 7 UST7-2	UST 7 UST7-2
Sample Depth (feet):		5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3
Date Collected:		07/31/98	10/01/98	10/27/98	01/01/99	01/28/99	04/01/99	04/12/99	07/01/99	07/14/99	10/01/99	10/22/99	01/01/00	05/01/00	05/17/00	08/01/00	08/23/00	10/01/00
Organophosphate Pesticides (Cont'd.)																		
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides																		
2,4,5-T	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans																		
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID:		UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7
Sample Depth (feet):		UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2
Date Collected:	Units	5.3 - 10.3 07/31/98	5.3 - 10.3 10/01/98	5.3 - 10.3 10/27/98	5.3 - 10.3 01/01/99	5.3 - 10.3 01/28/99	5.3 - 10.3 04/01/99	5.3 - 10.3 04/12/99	5.3 - 10.3 07/01/99	5.3 - 10.3 07/14/99	5.3 - 10.3 10/01/99	5.3 - 10.3 10/22/99	5.3 - 10.3 01/01/00	5.3 - 10.3 05/01/00	5.3 - 10.3 05/17/00	5.3 - 10.3 08/01/00	5.3 - 10.3 08/23/00	5.3 - 10.3 10/01/00
Dioxins/Furans (Cont'd.)																		
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	UST 7 UST7-2 5.3 - 10.3 03/01/01	UST 7 UST7-2 5.3 - 10.3 05/01/01	UST 7 UST7-2 5.3 - 10.3 08/01/01	UST 7 UST7-2 5.3 - 10.3 02/11/02	UST 7 UST7-2 5.3 - 10.3 08/02/02	UST 7 UST7-2 5.3 - 10.3 03/03/03	UST 7 UST7-2 5.3 - 10.3 08/03/03	UST 7 UST7-2 5.3 - 10.3 02/04/04	UST 7 UST7-2 5.3 - 10.3 08/04/04	UST 7 UST7-2 5.3 - 10.3 02/21/05	UST 7 UST7-2 5.3 - 10.3 02/22/05	UST 7 UST7-2 5.3 - 10.3 08/05/05	UST 7 UST7-2 5.3 - 10.3 08/23/05	UST 7 UST7-2 5.3 - 10.3 02/06/06	UST 7 UST7-2 5.3 - 10.3 08/06/06	UST 7 UST7-2 5.3 - 10.3 03/13/08	UST 7 UST7-3R 3.3 - 13.3 07/31/98
Volatile Organics																		
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	59 U	NA	62 U	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	59 U	NA	62 U	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	59 U	NA	62 U	NA	NA	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	59 U	NA	62 U	NA	NA	NA	NA
1,1-Dichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	59 U	NA	62 U	NA	NA	NA	NA
1,1-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	59 U	NA	62 U	NA	NA	NA	NA
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	59 U	NA	62 U	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	290 U	NA	310 U	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	59 U	NA	62 U	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	290 U	NA	310 U	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	210	NA	280	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	59 U	NA	62 U	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	59 U	NA	62 U	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	59 U	NA	62 U	NA	NA	NA	NA
1,2-Dichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	59 U	NA	62 U	NA	NA	NA	NA
1,2-Dichloroethene (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	59 U	NA	62 U	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	59 U	NA	62 U	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	59 U	NA	62 U	NA	NA	NA	NA
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	59 U	NA	62 U	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	59 U	NA	62 U	NA	NA	NA	NA
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	59 U	NA	62 U	NA	NA	NA	NA
2-Butanone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	59 U	NA	62 U	NA	NA	NA	NA
2-Hexanone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Chloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	59 U	NA	62 U	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	96 [110]	7.0	170	47	1.0 U [1.0 U]	67	120 [130]	850	2,100	1,600	1,600	2,400	2,400	1,900	2,300	2,100	14
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	59 U	NA	62 U	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	59 U	NA	62 U	NA	NA	NA	NA
Bromodichloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	59 U	NA	62 U	NA	NA	NA	NA
Bromoform	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	59 U	NA	62 U	NA	NA	NA	NA
Bromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	59 U	NA	62 U	NA	NA	NA	NA
Carbon Disulfide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	59 U	NA	62 U	NA	NA	NA	NA
Chlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	59 U	NA	62 U	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

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Volatile Organics (Cont'd.)																		
Chloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	59 U	NA	62 U	NA	NA	NA	NA
Chloroform	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	59 U	NA	62 U	NA	NA	NA	NA
Chloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	59 U	NA	62 U	NA	NA	NA	NA
cis-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	59 U	NA	62 U	NA	NA	NA	NA
cis-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	59 U	NA	62 U	NA	NA	NA	NA
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	290 U	NA	310 U	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	59 U	NA	62 U	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	9.0 [9.0]	1.0 U	50 U	1.0	1.0 U [1.0 U]	1.0 U	1.0 U [1.0]	120	980	420	420	610	610	450	610	240	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	59 U	NA	62 U	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	290 U	NA	310 U	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	170	NA	210	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	290 U	NA	310 U	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	290 U	NA	310 U	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	59 U	NA	62 U	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	180	NA	270	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	59 U	NA	62 U	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	59 U	NA	62 U	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	59 U	NA	62 U	NA	NA	NA	NA
Styrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	59 U	NA	62 U	NA	NA	NA	NA
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	59 U	NA	62 U	NA	NA	NA	NA
Tetrachloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	59 U	NA	62 U	NA	NA	NA	NA
Toluene	ug/L	1.0 [5.0 U]	1.0 U	50 U	1.0 U	1.0 U [1.0 U]	1.0	2.0 [2.0]	12 J	39 J	59	59 U	62 U	62 U	56 U	100 U	27 J	1.0 U
trans-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	59 U	NA	62 U	NA	NA	NA	NA
trans-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	59 U	NA	62 U	NA	NA	NA	NA
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	59 U	NA	62 U	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	59 U	NA	62 U	NA	NA	NA	NA
Total 1,3-Dichloropropenes	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Xylenes	ug/L	7.0 [8.0]	1.0 U	50 U	3.0	1.0 U [1.0 U]	2.0	2.0 [3.0]	97	400	170	170	210	210	170 U	300 U	36 J	3.0 U

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Semivolatile Organics																		
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Picoline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID:		UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7
Sample Depth (feet):		UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-2	UST7-3R
Date Collected:	Units	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	3.3 - 13.3
		03/01/01	05/01/01	08/01/01	02/11/02	08/02/02	03/03/03	08/03/03	02/04/04	08/04/04	02/21/05	02/22/05	08/05/05	08/23/05	02/06/06	08/06/06	03/13/08	07/31/98	
Semivolatile Organics (Cont'd.)																			
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diallate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID:	Units	UST 7 UST7-2	UST 7 UST7-2	UST 7 UST7-2	UST 7 UST7-2	UST 7 UST7-2	UST 7 UST7-2	UST 7 UST7-2	UST 7 UST7-2	UST 7 UST7-2	UST 7 UST7-2	UST 7 UST7-2	UST 7 UST7-2	UST 7 UST7-2	UST 7 UST7-2	UST 7 UST7-2	UST 7 UST7-2	UST 7 UST7-3R
Sample Depth (feet):		5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	3.3 - 13.3
Date Collected:		03/01/01	05/01/01	08/01/01	02/11/02	08/02/02	03/03/03	08/03/03	02/04/04	08/04/04	02/21/05	02/22/05	08/05/05	08/23/05	02/06/06	08/06/06	03/13/08	07/31/98
Semivolatile Organics (Cont'd.)																		
Isophorone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isosafrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenacetin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pronamide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs																		
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs-Dissolved																		
Aroclor-1016 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	UST 7 UST7-2 5.3 - 10.3 03/01/01	UST 7 UST7-2 5.3 - 10.3 05/01/01	UST 7 UST7-2 5.3 - 10.3 08/01/01	UST 7 UST7-2 5.3 - 10.3 02/11/02	UST 7 UST7-2 5.3 - 10.3 08/02/02	UST 7 UST7-2 5.3 - 10.3 03/03/03	UST 7 UST7-2 5.3 - 10.3 08/03/03	UST 7 UST7-2 5.3 - 10.3 02/04/04	UST 7 UST7-2 5.3 - 10.3 08/04/04	UST 7 UST7-2 5.3 - 10.3 02/21/05	UST 7 UST7-2 5.3 - 10.3 02/22/05	UST 7 UST7-2 5.3 - 10.3 08/05/05	UST 7 UST7-2 5.3 - 10.3 08/23/05	UST 7 UST7-2 5.3 - 10.3 02/06/06	UST 7 UST7-2 5.3 - 10.3 08/06/06	UST 7 UST7-2 5.3 - 10.3 03/13/08	UST 7 UST7-3R 3.3 - 13.3 07/31/98
PCBs-Dissolved (Cont'd.)																		
Aroclor-1248 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Organochlorine Pesticides																		
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Organophosphate Pesticides																		
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID:	Units	UST 7 UST7-2	UST 7 UST7-2	UST 7 UST7-2	UST 7 UST7-2	UST 7 UST7-2	UST 7 UST7-2	UST 7 UST7-2	UST 7 UST7-2	UST 7 UST7-2	UST 7 UST7-2	UST 7 UST7-2	UST 7 UST7-2	UST 7 UST7-2	UST 7 UST7-2	UST 7 UST7-2	UST 7 UST7-2	UST 7 UST7-3R
Sample Depth (feet):		5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	5.3 - 10.3	3.3 - 13.3
Date Collected:		03/01/01	05/01/01	08/01/01	02/11/02	08/02/02	03/03/03	08/03/03	02/04/04	08/04/04	02/21/05	02/22/05	08/05/05	08/23/05	02/06/06	08/06/06	03/13/08	07/31/98
Organophosphate Pesticides (Cont'd.)																		
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides																		
2,4,5-T	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans																		
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	UST 7 UST7-2 5.3 - 10.3 03/01/01	UST 7 UST7-2 5.3 - 10.3 05/01/01	UST 7 UST7-2 5.3 - 10.3 08/01/01	UST 7 UST7-2 5.3 - 10.3 02/11/02	UST 7 UST7-2 5.3 - 10.3 08/02/02	UST 7 UST7-2 5.3 - 10.3 03/03/03	UST 7 UST7-2 5.3 - 10.3 08/03/03	UST 7 UST7-2 5.3 - 10.3 02/04/04	UST 7 UST7-2 5.3 - 10.3 08/04/04	UST 7 UST7-2 5.3 - 10.3 02/21/05	UST 7 UST7-2 5.3 - 10.3 02/22/05	UST 7 UST7-2 5.3 - 10.3 08/05/05	UST 7 UST7-2 5.3 - 10.3 08/23/05	UST 7 UST7-2 5.3 - 10.3 02/06/06	UST 7 UST7-2 5.3 - 10.3 08/06/06	UST 7 UST7-2 5.3 - 10.3 03/13/08	UST 7 UST7-3R 3.3 - 13.3 07/31/98
Dioxins/Furans (Cont'd.)																		
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID:	Units	UST 7 UST7-3R 3.3 - 13.3 10/01/98	UST 7 UST7-3R 3.3 - 13.3 10/27/98	UST 7 UST7-3R 3.3 - 13.3 01/01/99	UST 7 UST7-3R 3.3 - 13.3 01/28/99	UST 7 UST7-3R 3.3 - 13.3 04/01/99	UST 7 UST7-3R 3.3 - 13.3 04/12/99	UST 7 UST7-3R 3.3 - 13.3 07/01/99	UST 7 UST7-3R 3.3 - 13.3 07/14/99	UST 7 UST7-3R 3.3 - 13.3 10/01/99	UST 7 UST7-3R 3.3 - 13.3 10/22/99	UST 7 UST7-3R 3.3 - 13.3 01/01/00	UST 7 UST7-3R 3.3 - 13.3 05/01/00	UST 7 UST7-3R 3.3 - 13.3 05/19/00	UST 7 UST7-3R 3.3 - 13.3 08/01/00	UST 7 UST7-3R 3.3 - 13.3 08/23/00	UST 7 UST7-3R 3.3 - 13.3 10/01/00	UST 7 UST7-3R 3.3 - 13.3 03/01/01
Sample Depth (feet):																		
Date Collected:																		
Volatile Organics																		
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA
1,1-Dichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA
1,1-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA
1,2-Dichloroethene (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA
1,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA	NA	NA
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA	NA	NA
3-Chloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA	NA	NA
Acetone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA	NA	NA
Acetonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	12	12	5.0	5.0	18	18	24	24	50	50	30	13	13	28	28	26	15
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA
Bromoform	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA
Bromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA
Carbon Disulfide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA
Carbon Tetrachloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA
Chlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID:	Units	UST 7 UST7-3R 3.3 - 13.3 10/01/98	UST 7 UST7-3R 3.3 - 13.3 10/27/98	UST 7 UST7-3R 3.3 - 13.3 01/01/99	UST 7 UST7-3R 3.3 - 13.3 01/28/99	UST 7 UST7-3R 3.3 - 13.3 04/01/99	UST 7 UST7-3R 3.3 - 13.3 04/12/99	UST 7 UST7-3R 3.3 - 13.3 07/01/99	UST 7 UST7-3R 3.3 - 13.3 07/14/99	UST 7 UST7-3R 3.3 - 13.3 10/01/99	UST 7 UST7-3R 3.3 - 13.3 10/22/99	UST 7 UST7-3R 3.3 - 13.3 01/01/00	UST 7 UST7-3R 3.3 - 13.3 05/01/00	UST 7 UST7-3R 3.3 - 13.3 05/19/00	UST 7 UST7-3R 3.3 - 13.3 08/01/00	UST 7 UST7-3R 3.3 - 13.3 08/23/00	UST 7 UST7-3R 3.3 - 13.3 10/01/00	UST 7 UST7-3R 3.3 - 13.3 03/01/01
Sample Depth (feet):																		
Date Collected:																		
Volatile Organics (Cont'd.)																		
Chloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA
Chloroform	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA
Chloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA
cis-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.50 U	NA	NA	NA	NA
cis-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA
Cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.33 J	NA	NA	NA	NA
Toluene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0	2.0	1.0 U	1.0 U	1.0 U	0.12 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.50 U	NA	NA	NA	NA
trans-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA
Total 1,3-Dichloropropenes	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA
Total Xylenes	ug/L	2.0 U	2.0 U	1.0 U	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID:		UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7
Sample Depth (feet):		UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R
		3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3
Date Collected:	Units	10/01/98	10/27/98	01/01/99	01/28/99	04/01/99	04/12/99	07/01/99	07/14/99	10/01/99	10/22/99	01/01/00	05/01/00	05/19/00	08/01/00	08/23/00	10/01/00	03/01/01
Semivolatile Organics																		
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Picoline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID:	Units	UST 7 UST7-3R 3.3 - 13.3 10/01/98	UST 7 UST7-3R 3.3 - 13.3 10/27/98	UST 7 UST7-3R 3.3 - 13.3 01/01/99	UST 7 UST7-3R 3.3 - 13.3 01/28/99	UST 7 UST7-3R 3.3 - 13.3 04/01/99	UST 7 UST7-3R 3.3 - 13.3 04/12/99	UST 7 UST7-3R 3.3 - 13.3 07/01/99	UST 7 UST7-3R 3.3 - 13.3 07/14/99	UST 7 UST7-3R 3.3 - 13.3 10/01/99	UST 7 UST7-3R 3.3 - 13.3 10/22/99	UST 7 UST7-3R 3.3 - 13.3 01/01/00	UST 7 UST7-3R 3.3 - 13.3 05/01/00	UST 7 UST7-3R 3.3 - 13.3 05/19/00	UST 7 UST7-3R 3.3 - 13.3 08/01/00	UST 7 UST7-3R 3.3 - 13.3 08/23/00	UST 7 UST7-3R 3.3 - 13.3 10/01/00	UST 7 UST7-3R 3.3 - 13.3 03/01/01
Sample Depth (feet):																		
Date Collected:																		
Semivolatile Organics (Cont'd.)																		
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diallate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID:	Units	UST 7 UST7-3R 3.3 - 13.3 10/01/98	UST 7 UST7-3R 3.3 - 13.3 10/27/98	UST 7 UST7-3R 3.3 - 13.3 01/01/99	UST 7 UST7-3R 3.3 - 13.3 01/28/99	UST 7 UST7-3R 3.3 - 13.3 04/01/99	UST 7 UST7-3R 3.3 - 13.3 04/12/99	UST 7 UST7-3R 3.3 - 13.3 07/01/99	UST 7 UST7-3R 3.3 - 13.3 07/14/99	UST 7 UST7-3R 3.3 - 13.3 10/01/99	UST 7 UST7-3R 3.3 - 13.3 10/22/99	UST 7 UST7-3R 3.3 - 13.3 01/01/00	UST 7 UST7-3R 3.3 - 13.3 05/01/00	UST 7 UST7-3R 3.3 - 13.3 05/19/00	UST 7 UST7-3R 3.3 - 13.3 08/01/00	UST 7 UST7-3R 3.3 - 13.3 08/23/00	UST 7 UST7-3R 3.3 - 13.3 10/01/00	UST 7 UST7-3R 3.3 - 13.3 03/01/01
Sample Depth (feet):																		
Date Collected:																		
Semivolatile Organics (Cont'd.)																		
Isophorone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isosafrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenacetin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pronamide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs																		
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs-Dissolved																		
Aroclor-1016 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID:	Units	UST 7 UST7-3R 3.3 - 13.3 10/01/98	UST 7 UST7-3R 3.3 - 13.3 10/27/98	UST 7 UST7-3R 3.3 - 13.3 01/01/99	UST 7 UST7-3R 3.3 - 13.3 01/28/99	UST 7 UST7-3R 3.3 - 13.3 04/01/99	UST 7 UST7-3R 3.3 - 13.3 04/12/99	UST 7 UST7-3R 3.3 - 13.3 07/01/99	UST 7 UST7-3R 3.3 - 13.3 07/14/99	UST 7 UST7-3R 3.3 - 13.3 10/01/99	UST 7 UST7-3R 3.3 - 13.3 10/22/99	UST 7 UST7-3R 3.3 - 13.3 01/01/00	UST 7 UST7-3R 3.3 - 13.3 05/01/00	UST 7 UST7-3R 3.3 - 13.3 05/19/00	UST 7 UST7-3R 3.3 - 13.3 08/01/00	UST 7 UST7-3R 3.3 - 13.3 08/23/00	UST 7 UST7-3R 3.3 - 13.3 10/01/00	UST 7 UST7-3R 3.3 - 13.3 03/01/01
Sample Depth (feet):																		
Date Collected:																		
PCBs-Dissolved (Cont'd.)																		
Aroclor-1248 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Organochlorine Pesticides																		
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Organophosphate Pesticides																		
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID:		UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7
Sample Depth (feet):		UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R
		3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3
Date Collected:	Units	10/01/98	10/27/98	01/01/99	01/28/99	04/01/99	04/12/99	07/01/99	07/14/99	10/01/99	10/22/99	01/01/00	05/01/00	05/19/00	08/01/00	08/23/00	10/01/00	03/01/01
Organophosphate Pesticides (Cont'd.)																		
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides																		
2,4,5-T	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans																		
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID:	Units	UST 7 UST7-3R	UST 7 UST7-3R	UST 7 UST7-3R	UST 7 UST7-3R	UST 7 UST7-3R	UST 7 UST7-3R	UST 7 UST7-3R	UST 7 UST7-3R	UST 7 UST7-3R	UST 7 UST7-3R	UST 7 UST7-3R	UST 7 UST7-3R	UST 7 UST7-3R	UST 7 UST7-3R	UST 7 UST7-3R	UST 7 UST7-3R	UST 7 UST7-3R
Sample Depth (feet):		3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3
Date Collected:		10/01/98	10/27/98	01/01/99	01/28/99	04/01/99	04/12/99	07/01/99	07/14/99	10/01/99	10/22/99	01/01/00	05/01/00	05/19/00	08/01/00	08/23/00	10/01/00	03/01/01
Dioxins/Furans (Cont'd.)																		
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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ORGANIC COMPOUNDS

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	UST 7 UST7-3R 3.3 - 13.3 05/01/01	UST 7 UST7-3R 3.3 - 13.3 08/01/01	UST 7 UST7-3R 3.3 - 13.3 02/11/02	UST 7 UST7-3R 3.3 - 13.3 08/02/02	UST 7 UST7-3R 3.3 - 13.3 03/03/03	UST 7 UST7-3R 3.3 - 13.3 08/03/03	UST 7 UST7-3R 3.3 - 13.3 02/04/04	UST 7 UST7-3R 3.3 - 13.3 08/04/04	UST 7 UST7-3R 3.3 - 13.3 02/21/05	UST 7 UST7-3R 3.3 - 13.3 02/22/05	UST 7 UST7-3R 3.3 - 13.3 08/05/05	UST 7 UST7-3R 3.3 - 13.3 08/23/05	UST 7 UST7-3R 3.3 - 13.3 02/06/06	UST 7 UST7-3R 3.3 - 13.3 08/06/06	UST 7 UST7-3R 3.3 - 13.3 03/13/08	UST 7 UST7-4 7 - 12 06/01/94	UST 7 UST7-4 7 - 12 06/08/94
Volatile Organics																		
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	NA	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	NA	NA	NA
1,1-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	NA	NA	NA
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U [5.0 U]	NA	5.0 U	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U [5.0 U]	NA	5.0 U	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	NA	NA	NA
1,2-Dichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	NA	NA	NA
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	NA	NA	NA
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	NA	NA	NA
2-Butanone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	NA	NA	NA
2-Hexanone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Chloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	12	35	30	6.0	30	9.0	9.3	16	11 [11]	11 [11]	12	12	3.3	8.9	0.86 J	110	110
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	NA	NA	NA
Bromoform	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	NA	NA	NA
Bromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	NA	NA	NA
Carbon Disulfide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	NA	NA	NA
Chlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID:		UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7
Sample Depth (feet):		UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-4	UST7-4
Date Collected:	Units	3.3 - 13.3 05/01/01	3.3 - 13.3 08/01/01	3.3 - 13.3 02/11/02	3.3 - 13.3 08/02/02	3.3 - 13.3 03/03/03	3.3 - 13.3 08/03/03	3.3 - 13.3 02/04/04	3.3 - 13.3 08/04/04	3.3 - 13.3 02/21/05	3.3 - 13.3 02/22/05	3.3 - 13.3 08/05/05	3.3 - 13.3 08/23/05	3.3 - 13.3 02/06/06	3.3 - 13.3 08/06/06	3.3 - 13.3 03/13/08	7 - 12 06/01/94	7 - 12 06/08/94
Volatile Organics (Cont'd.)																		
Chloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	NA	NA	NA
Chloroform	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	NA	NA	NA
Chloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	NA	NA	NA
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U [5.0 U]	NA	5.0 U	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U [5.0 U]	NA	5.0 U	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.0 U [2.0 U]	NA	2.0 U	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U [5.0 U]	NA	5.0 U	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U [5.0 U]	NA	5.0 U	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	NA	NA	NA
Styrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	NA	NA	NA
Toluene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	8.0	8.1
trans-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	NA	NA	NA
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	NA	NA	NA
Total 1,3-Dichloropropenes	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Xylenes	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	3.0 U [3.0 U]	2.0 U [2.0 U]	2.0 U	2.0 U	3.0 U	3.0 U	2.0 U	1.0 U	1.0 U

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID:		UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7
Sample Depth (feet):		UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-4	UST7-4
Date Collected:	Units	3.3 - 13.3 05/01/01	3.3 - 13.3 08/01/01	3.3 - 13.3 02/11/02	3.3 - 13.3 08/02/02	3.3 - 13.3 03/03/03	3.3 - 13.3 08/03/03	3.3 - 13.3 02/04/04	3.3 - 13.3 08/04/04	3.3 - 13.3 02/21/05	3.3 - 13.3 02/22/05	3.3 - 13.3 08/05/05	3.3 - 13.3 08/23/05	3.3 - 13.3 02/06/06	3.3 - 13.3 08/06/06	3.3 - 13.3 03/13/08	7 - 12 06/01/94	7 - 12 06/08/94
Semivolatile Organics																		
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Picoline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID:		UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7
Sample Depth (feet):		UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-4	UST7-4
		3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	7 - 12	7 - 12
Date Collected:	Units	05/01/01	08/01/01	02/11/02	08/02/02	03/03/03	08/03/03	02/04/04	08/04/04	02/21/05	02/22/05	08/05/05	08/23/05	02/06/06	08/06/06	03/13/08	06/01/94	06/08/94
Semivolatile Organics (Cont'd.)																		
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diallate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID:		UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7
Sample Depth (feet):		UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-4	UST7-4
		3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	7 - 12	7 - 12
Date Collected:	Units	05/01/01	08/01/01	02/11/02	08/02/02	03/03/03	08/03/03	02/04/04	08/04/04	02/21/05	02/22/05	08/05/05	08/23/05	02/06/06	08/06/06	03/13/08	06/01/94	06/08/94
Semivolatile Organics (Cont'd.)																		
Isophorone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isosafrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenacetin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pronamide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs																		
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs-Dissolved																		
Aroclor-1016 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

Sample ID:		UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7
Sample Depth (feet):		UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-4	UST7-4
Date Collected:	Units	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	7 - 12	7 - 12
		05/01/01	08/01/01	02/11/02	08/02/02	03/03/03	08/03/03	02/04/04	08/04/04	02/21/05	02/22/05	08/05/05	08/23/05	02/06/06	08/06/06	03/13/08	06/01/94	06/08/94
PCBs-Dissolved (Cont'd.)																		
Aroclor-1248 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Organochlorine Pesticides																		
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Organophosphate Pesticides																		
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	UST 7 UST7-3R 3.3 - 13.3 05/01/01	UST 7 UST7-3R 3.3 - 13.3 08/01/01	UST 7 UST7-3R 3.3 - 13.3 02/11/02	UST 7 UST7-3R 3.3 - 13.3 08/02/02	UST 7 UST7-3R 3.3 - 13.3 03/03/03	UST 7 UST7-3R 3.3 - 13.3 08/03/03	UST 7 UST7-3R 3.3 - 13.3 02/04/04	UST 7 UST7-3R 3.3 - 13.3 08/04/04	UST 7 UST7-3R 3.3 - 13.3 02/21/05	UST 7 UST7-3R 3.3 - 13.3 02/22/05	UST 7 UST7-3R 3.3 - 13.3 08/05/05	UST 7 UST7-3R 3.3 - 13.3 08/23/05	UST 7 UST7-3R 3.3 - 13.3 02/06/06	UST 7 UST7-3R 3.3 - 13.3 08/06/06	UST 7 UST7-3R 3.3 - 13.3 03/13/08	UST 7 UST7-4 7 - 12 06/01/94	UST 7 UST7-4 7 - 12 06/08/94
Organophosphate Pesticides (Cont'd.)																		
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides																		
2,4,5-T	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans																		
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID:		UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7
Sample Depth (feet):		UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-4	UST7-4
		3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	7 - 12	7 - 12
Date Collected:	Units	05/01/01	08/01/01	02/11/02	08/02/02	03/03/03	08/03/03	02/04/04	08/04/04	02/21/05	02/22/05	08/05/05	08/23/05	02/06/06	08/06/06	03/13/08	06/01/94	06/08/94
Dioxins/Furans (Cont'd.)																			
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	UST 7 UST7-4 7 - 12 06/01/96	UST 7 UST7-4 7 - 12 06/19/96	UST 7 UST7-4 7 - 12 07/31/98	UST 7 UST7-4 7 - 12 10/01/98	UST 7 UST7-4 7 - 12 10/27/98	UST 7 UST7-4 7 - 12 01/01/99	UST 7 UST7-4 7 - 12 01/28/99	UST 7 UST7-4 7 - 12 04/01/99	UST 7 UST7-4 7 - 12 04/12/99	UST 7 UST7-4 7 - 12 07/01/99	UST 7 UST7-4 7 - 12 07/14/99	UST 7 UST7-4 7 - 12 10/01/99	UST 7 UST7-4 7 - 12 10/22/99	UST 7 UST7-4 7 - 12 01/01/00	UST 7 UST7-4 7 - 12 05/01/00	UST 7 UST7-4 7 - 12 05/18/00	UST 7 UST7-4 7 - 12 08/01/00
Volatile Organics																		
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	NA	1.7 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA
1,1,2,2-Tetrachloroethane	ug/L	NA	1.7 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	NA	1.7 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA
1,1-Dichloroethane	ug/L	NA	1.7 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA
1,1-Dichloroethene	ug/L	NA	1.7 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	1.7 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.14 J	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	1.7 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	ug/L	NA	1.7 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA
1,2-Dichloroethene (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA
1,2-Dichloropropane	ug/L	NA	1.7 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA
1,3,5-Trimethylbenzene	ug/L	NA	1.7 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA
1,3-Dichlorobenzene	ug/L	NA	1.7 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	1.7 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	NA	83 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.73 J	NA
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	NA	83 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA
3-Chloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	NA	83 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA
Acetone	ug/L	NA	170 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA
Acetonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	44	44	14	10	10	17	17	7.0	7.0	4.0	4.0	4.0	4.0	3.0	6.0	6.0	3.0 [3.0]
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	NA	1.7 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA
Bromoform	ug/L	NA	1.7 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA
Bromomethane	ug/L	NA	1.7 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA
Carbon Disulfide	ug/L	NA	83 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.22 J	NA
Carbon Tetrachloride	ug/L	NA	1.7 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA
Chlorobenzene	ug/L	NA	1.7 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	UST 7 UST7-4 7 - 12 06/01/96	UST 7 UST7-4 7 - 12 06/19/96	UST 7 UST7-4 7 - 12 07/31/98	UST 7 UST7-4 7 - 12 10/01/98	UST 7 UST7-4 7 - 12 10/27/98	UST 7 UST7-4 7 - 12 01/01/99	UST 7 UST7-4 7 - 12 01/28/99	UST 7 UST7-4 7 - 12 04/01/99	UST 7 UST7-4 7 - 12 04/12/99	UST 7 UST7-4 7 - 12 07/01/99	UST 7 UST7-4 7 - 12 07/14/99	UST 7 UST7-4 7 - 12 10/01/99	UST 7 UST7-4 7 - 12 10/22/99	UST 7 UST7-4 7 - 12 01/01/00	UST 7 UST7-4 7 - 12 05/01/00	UST 7 UST7-4 7 - 12 05/18/00	UST 7 UST7-4 7 - 12 08/01/00
Volatile Organics (Cont'd.)																		
Chloroethane	ug/L	NA	1.7 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA
Chloroform	ug/L	NA	1.7 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA
Chloromethane	ug/L	NA	1.7 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA
cis-1,2-Dichloroethene	ug/L	NA	1.7 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.50 U	NA
cis-1,3-Dichloropropene	ug/L	NA	1.7 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA
Cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	NA	1.7 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1.7 U	1.7 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.18 J	0.18 J	1.0 U [1.0 U]
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	1.5 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	NA	8.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	NA	1.7 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	NA	1.7 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA
Toluene	ug/L	1.7 U	1.7 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0	4.0	1.0 U	1.0 U	1.0	0.22 J	1.0 U	1.0 U [1.0 U]
trans-1,2-Dichloroethene	ug/L	NA	1.7 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.50 U	NA
trans-1,3-Dichloropropene	ug/L	NA	1.7 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	NA	1.7 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	NA	1.7 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA
Total 1,3-Dichloropropenes	ug/L	NA	1.7 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA
Total Xylenes	ug/L	5.1 U	5.1 U	3.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0	1.0	1.0	0.67 J	0.67 J	1.0 U [1.0 U]

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TABLE A-1
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SAGINAW, MICHIGAN

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Semivolatile Organics																		
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Picoline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
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ORGANIC COMPOUNDS

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SAGINAW, MICHIGAN

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Semivolatile Organics (Cont'd.)																		
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diallate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Semivolatile Organics (Cont'd.)																		
Isophorone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isosafrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenacetin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pronamide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs																		
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs-Dissolved																		
Aroclor-1016 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
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SAGINAW, MICHIGAN

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PCBs-Dissolved (Cont'd.)																		
Aroclor-1248 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Organochlorine Pesticides																		
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	NA	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	0.4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Organophosphate Pesticides																		
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Organophosphate Pesticides (Cont'd.)																		
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides																		
2,4,5-T	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans																		
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Dioxins/Furans (Cont'd.)																		
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Volatile Organics																		
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA
1,1,1-Trichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA
1,1,2,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA
1,1-Dichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA
1,1-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	NA	5.0 U	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	NA	5.0 U	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA
1,2-Dichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA
1,2-Dichloroethene (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA
2-Butanone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA
2-Hexanone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Chloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA
4-Methyl-2-pentanone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	3.0 [3.0]	23	2.0	2.0	2.0	16 [16]	1.0	1.0 U [1.0 U]	2.0	3.9	0.71 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA
Bromodichloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA
Bromoform	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA
Bromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA
Carbon Disulfide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA
Chlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA

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SAGINAW, MICHIGAN

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Volatile Organics (Cont'd.)																		
Chloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA
Chloroform	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA
Chloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA
cis-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA
cis-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	NA	5.0 U	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	2.0 [3.0]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	NA	5.0 U	NA	NA
m&p-Xylene	ug/L	1.0 U [1.0 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.0 U	NA	2.0 U	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	NA	5.0 U	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	NA	5.0 U	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.1	NA	1.1	NA	NA
o-Xylene	ug/L	1.0 U [1.0 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA
Styrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA
Tetrachloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA
Toluene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	0.25 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA
trans-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA
Total 1,3-Dichloropropenes	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Xylenes	ug/L	1.0 U [1.0 U]	1.0 U	1.0	1.0 U	1.0 U	1.0 [1.0]	1.0 U	1.0 U [1.0 U]	1.0 U	0.84 J	1.0 U	3.0 U	2.0 U	2.0 U	2.0 U	3.0 U	3.0 U

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ORGANIC COMPOUNDS

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SAGINAW, MICHIGAN

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Semivolatile Organics																		
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Picoline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Semivolatile Organics (Cont'd.)																		
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diallate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	UST 7 UST7-4 7 - 12 08/23/00	UST 7 UST7-4 7 - 12 10/01/00	UST 7 UST7-4 7 - 12 03/01/01	UST 7 UST7-4 7 - 12 05/01/01	UST 7 UST7-4 7 - 12 08/01/01	UST 7 UST7-4 7 - 12 02/11/02	UST 7 UST7-4 7 - 12 08/02/02	UST 7 UST7-4 7 - 12 03/03/03	UST 7 UST7-4 7 - 12 08/03/03	UST 7 UST7-4 7 - 12 02/04/04	UST 7 UST7-4 7 - 12 08/04/04	UST 7 UST7-4 7 - 12 02/21/05	UST 7 UST7-4 7 - 12 02/22/05	UST 7 UST7-4 7 - 12 08/05/05	UST 7 UST7-4 7 - 12 08/22/05	UST 7 UST7-4 7 - 12 02/06/06	UST 7 UST7-4 7 - 12 08/06/06
Semivolatile Organics (Cont'd.)																		
Isophorone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isosafrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenacetin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pronamide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs																		
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs-Dissolved																		
Aroclor-1016 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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PCBs-Dissolved (Cont'd.)																		
Aroclor-1248 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Organochlorine Pesticides																		
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Organophosphate Pesticides																		
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Organophosphate Pesticides (Cont'd.)																		
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides																		
2,4,5-T	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans																		
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	UST 7 UST7-4 7 - 12 08/23/00	UST 7 UST7-4 7 - 12 10/01/00	UST 7 UST7-4 7 - 12 03/01/01	UST 7 UST7-4 7 - 12 05/01/01	UST 7 UST7-4 7 - 12 08/01/01	UST 7 UST7-4 7 - 12 02/11/02	UST 7 UST7-4 7 - 12 08/02/02	UST 7 UST7-4 7 - 12 03/03/03	UST 7 UST7-4 7 - 12 08/03/03	UST 7 UST7-4 7 - 12 02/04/04	UST 7 UST7-4 7 - 12 08/04/04	UST 7 UST7-4 7 - 12 02/21/05	UST 7 UST7-4 7 - 12 02/22/05	UST 7 UST7-4 7 - 12 08/05/05	UST 7 UST7-4 7 - 12 08/22/05	UST 7 UST7-4 7 - 12 02/06/06	UST 7 UST7-4 7 - 12 08/06/06
Dioxins/Furans (Cont'd.)																		
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	UST 7 UST7-4 7 - 12 03/13/08	UST 7 UST7-5 7 - 12 06/01/94	UST 7 UST7-5 7 - 12 06/08/94	UST 7 UST7-5 7 - 12 06/01/96	UST 7 UST7-5 7 - 12 06/19/96	UST 7 UST7-5 7 - 12 07/31/98	UST 7 UST7-5 7 - 12 10/01/98	UST 7 UST7-5 7 - 12 10/27/98	UST 7 UST7-5 7 - 12 01/01/99	UST 7 UST7-5 7 - 12 01/28/99	UST 7 UST7-5 7 - 12 04/01/99	UST 7 UST7-5 7 - 12 04/12/99	UST 7 UST7-5 7 - 12 07/01/99	UST 7 UST7-5 7 - 12 07/14/99	UST 7 UST7-5 7 - 12 10/01/99	UST 7 UST7-5 7 - 12 10/22/99	UST 7 UST7-5 7 - 12 01/01/00	UST 7 UST7-5 7 - 12 05/01/00
Volatile Organics																			
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	NA	NA	NA	NA	120 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	120 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	NA	NA	NA	NA	120 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/L	NA	NA	NA	NA	120 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	ug/L	NA	NA	NA	NA	120 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	2,400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	120 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	ug/L	NA	NA	NA	NA	120 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	ug/L	NA	NA	NA	NA	120 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	650	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	120 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	120 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	NA	NA	NA	NA	6,200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	NA	NA	NA	NA	6,200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Chloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	NA	NA	NA	NA	6,200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/L	NA	NA	NA	NA	12,000 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	1.0 U	3,700	3,700	1,600	1,600	1,900	1,400	1,400	190	190	400	400	300	300	20	20	23	42 [56]
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	NA	NA	NA	NA	120 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	ug/L	NA	NA	NA	NA	120 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	ug/L	NA	NA	NA	NA	120 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	ug/L	NA	NA	NA	NA	6,200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	ug/L	NA	NA	NA	NA	120 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/L	NA	NA	NA	NA	120 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	UST 7 UST7-4 7 - 12 03/13/08	UST 7 UST7-5 7 - 12 06/01/94	UST 7 UST7-5 7 - 12 06/08/94	UST 7 UST7-5 7 - 12 06/01/96	UST 7 UST7-5 7 - 12 06/19/96	UST 7 UST7-5 7 - 12 07/31/98	UST 7 UST7-5 7 - 12 10/01/98	UST 7 UST7-5 7 - 12 10/27/98	UST 7 UST7-5 7 - 12 01/01/99	UST 7 UST7-5 7 - 12 01/28/99	UST 7 UST7-5 7 - 12 04/01/99	UST 7 UST7-5 7 - 12 04/12/99	UST 7 UST7-5 7 - 12 07/01/99	UST 7 UST7-5 7 - 12 07/14/99	UST 7 UST7-5 7 - 12 10/01/99	UST 7 UST7-5 7 - 12 10/22/99	UST 7 UST7-5 7 - 12 01/01/00	UST 7 UST7-5 7 - 12 05/01/00
Volatile Organics (Cont'd.)																			
Chloroethane	ug/L	NA	NA	NA	NA	120 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	ug/L	NA	NA	NA	NA	120 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	ug/L	NA	NA	NA	NA	120 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	120 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	120 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	NA	NA	NA	NA	120 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1.0 U	13,000	13,000	1,800	1,800	200 U	1,300	1,300	680	680	890	890	240	240	110	110	71	71 [83]
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	620 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	NA	NA	NA	NA	620 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	NA	NA	NA	NA	120 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	NA	NA	NA	NA	120 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	1.0 U	3,600	3,600	1,400	1,400	930	990	990	450	450	400	400	240	240	20	20	9.0	13 [13]
trans-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	120 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	120 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	NA	NA	NA	NA	120 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	NA	NA	NA	NA	120 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total 1,3-Dichloropropenes	ug/L	NA	NA	NA	NA	120 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Xylenes	ug/L	2.0 U	19,000	19,000	6,900	6,900	7,900	5,100	5,100	4,400	4,400	6,500	6,500	3,500	3,500	860	860	350	330 [360]

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	UST 7 UST7-4 7 - 12 03/13/08	UST 7 UST7-5 7 - 12 06/01/94	UST 7 UST7-5 7 - 12 06/08/94	UST 7 UST7-5 7 - 12 06/01/96	UST 7 UST7-5 7 - 12 06/19/96	UST 7 UST7-5 7 - 12 07/31/98	UST 7 UST7-5 7 - 12 10/01/98	UST 7 UST7-5 7 - 12 10/27/98	UST 7 UST7-5 7 - 12 01/01/99	UST 7 UST7-5 7 - 12 01/28/99	UST 7 UST7-5 7 - 12 04/01/99	UST 7 UST7-5 7 - 12 04/12/99	UST 7 UST7-5 7 - 12 07/01/99	UST 7 UST7-5 7 - 12 07/14/99	UST 7 UST7-5 7 - 12 10/01/99	UST 7 UST7-5 7 - 12 10/22/99	UST 7 UST7-5 7 - 12 01/01/00	UST 7 UST7-5 7 - 12 05/01/00
Semivolatile Organics																			
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Picoline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	UST 7 UST7-4 7 - 12 03/13/08	UST 7 UST7-5 7 - 12 06/01/94	UST 7 UST7-5 7 - 12 06/08/94	UST 7 UST7-5 7 - 12 06/01/96	UST 7 UST7-5 7 - 12 06/19/96	UST 7 UST7-5 7 - 12 07/31/98	UST 7 UST7-5 7 - 12 10/01/98	UST 7 UST7-5 7 - 12 10/27/98	UST 7 UST7-5 7 - 12 01/01/99	UST 7 UST7-5 7 - 12 01/28/99	UST 7 UST7-5 7 - 12 04/01/99	UST 7 UST7-5 7 - 12 04/12/99	UST 7 UST7-5 7 - 12 07/01/99	UST 7 UST7-5 7 - 12 07/14/99	UST 7 UST7-5 7 - 12 10/01/99	UST 7 UST7-5 7 - 12 10/22/99	UST 7 UST7-5 7 - 12 01/01/00	UST 7 UST7-5 7 - 12 05/01/00
Semivolatile Organics (Cont'd.)																			
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diallate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

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Semivolatile Organics (Cont'd.)																			
Isophorone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isosafrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenacetin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pronamide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs																			
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs-Dissolved																			
Aroclor-1016 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	UST 7 UST7-4 7 - 12 03/13/08	UST 7 UST7-5 7 - 12 06/01/94	UST 7 UST7-5 7 - 12 06/08/94	UST 7 UST7-5 7 - 12 06/01/96	UST 7 UST7-5 7 - 12 06/19/96	UST 7 UST7-5 7 - 12 07/31/98	UST 7 UST7-5 7 - 12 10/01/98	UST 7 UST7-5 7 - 12 10/27/98	UST 7 UST7-5 7 - 12 01/01/99	UST 7 UST7-5 7 - 12 01/28/99	UST 7 UST7-5 7 - 12 04/01/99	UST 7 UST7-5 7 - 12 04/12/99	UST 7 UST7-5 7 - 12 07/01/99	UST 7 UST7-5 7 - 12 07/14/99	UST 7 UST7-5 7 - 12 10/01/99	UST 7 UST7-5 7 - 12 10/22/99	UST 7 UST7-5 7 - 12 01/01/00	UST 7 UST7-5 7 - 12 05/01/00
PCBs-Dissolved (Cont'd.)																			
Aroclor-1248 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Organochlorine Pesticides																			
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	NA	NA	NA	NA	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	0.4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Organophosphate Pesticides																			
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	UST 7 UST7-4 7 - 12 03/13/08	UST 7 UST7-5 7 - 12 06/01/94	UST 7 UST7-5 7 - 12 06/08/94	UST 7 UST7-5 7 - 12 06/01/96	UST 7 UST7-5 7 - 12 06/19/96	UST 7 UST7-5 7 - 12 07/31/98	UST 7 UST7-5 7 - 12 10/01/98	UST 7 UST7-5 7 - 12 10/27/98	UST 7 UST7-5 7 - 12 01/01/99	UST 7 UST7-5 7 - 12 01/28/99	UST 7 UST7-5 7 - 12 04/01/99	UST 7 UST7-5 7 - 12 04/12/99	UST 7 UST7-5 7 - 12 07/01/99	UST 7 UST7-5 7 - 12 07/14/99	UST 7 UST7-5 7 - 12 10/01/99	UST 7 UST7-5 7 - 12 10/22/99	UST 7 UST7-5 7 - 12 01/01/00	UST 7 UST7-5 7 - 12 05/01/00
Organophosphate Pesticides (Cont'd.)																			
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides																			
2,4,5-T	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans																			
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Dioxins/Furans (Cont'd.)																			
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Volatile Organics																			
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.7 U	NA	20 U	NA	NA
1,1,1-Trichloroethane	ug/L	5.0 U [7.1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.7 U	NA	20 U	NA	NA
1,1,2,2-Tetrachloroethane	ug/L	5.0 U [7.1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.7 U	NA	20 U	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	5.0 U [7.1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.7 U	NA	20 U	NA	NA
1,1-Dichloroethane	ug/L	5.0 U [7.1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.7 U	NA	20 U	NA	NA
1,1-Dichloroethene	ug/L	5.0 U [7.1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.7 U	NA	20 U	NA	NA
1,1-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.7 U	NA	20 U	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	38 U	NA	100 U	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.7 U	NA	20 U	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	38 U	NA	100 U	NA	NA
1,2,4-Trimethylbenzene	ug/L	190 [260]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	200	NA	500	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.7 U	NA	20 U	NA	NA
1,2-Dibromoethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.7 U	NA	20 U	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.7 U	NA	20 U	NA	NA
1,2-Dichloroethane	ug/L	5.0 U [7.1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.7 U	NA	20 U	NA	NA
1,2-Dichloroethene (total)	ug/L	5.0 U [7.1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	ug/L	5.0 U [0.61 J]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.7 U	NA	20 U	NA	NA
1,3,5-Trimethylbenzene	ug/L	5.0 U [7.1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	86	NA	210	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.7 U	NA	20 U	NA	NA
1,3-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.7 U	NA	20 U	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.7 U	NA	20 U	NA	NA
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.7 U	NA	20 U	NA	NA
2-Butanone	ug/L	50 U [71 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloro-1,3-butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.7 U	NA	20 U	NA	NA
2-Hexanone	ug/L	50 U [71 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Chloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.7 U	NA	20 U	NA	NA
4-Methyl-2-pentanone	ug/L	50 U [71 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/L	50 U [71 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	42 [56]	160	160	56 [59]	200	10 U	160	1.0	7.0	330	470	42	120	140	340	340	390	430
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.7 U	NA	20 U	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.7 U	NA	20 U	NA	NA
Bromodichloromethane	ug/L	5.0 U [7.1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.7 U	NA	20 U	NA	NA
Bromoform	ug/L	5.0 U [7.1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.7 U	NA	20 U	NA	NA
Bromomethane	ug/L	5.0 U [7.1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.7 U	NA	20 U	NA	NA
Carbon Disulfide	ug/L	0.62 J [7.1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	ug/L	5.0 U [7.1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.7 U	NA	20 U	NA	NA
Chlorobenzene	ug/L	5.0 U [7.1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.7 U	NA	20 U	NA	NA

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

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Volatile Organics (Cont'd.)																			
Chloroethane	ug/L	5.0 U [7.1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.7 U	NA	20 U	NA	NA
Chloroform	ug/L	5.0 U [7.1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.7 U	NA	20 U	NA	NA
Chloromethane	ug/L	5.0 U [7.1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.7 U	NA	20 U	NA	NA
cis-1,2-Dichloroethene	ug/L	2.5 U [3.6 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.7 U	NA	20 U	NA	NA
cis-1,3-Dichloropropene	ug/L	5.0 U [7.1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	5.0 U [7.1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.7 U	NA	20 U	NA	NA
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	38 U	NA	100 U	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.7 U	NA	20 U	NA	NA
Ethyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	71 [83]	100	100	27 [29]	100	10	130	1.0	7.0	380	340	62	96	78	230	230	450	440
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.7 U	NA	20 U	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isobutanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	38 U	NA	100 U	NA	NA
m&p-Xylene	ug/L	NA	NA	410	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	280	NA	650	NA	NA
Methacrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	5.0 U [7.1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	38 U	NA	100 U	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	38	NA	110	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.7 U	NA	20 U	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.7 U	NA	20 U	NA	NA
o-Xylene	ug/L	NA	NA	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	170	NA	410	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.7 U	NA	20 U	NA	NA
Propionitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.7 U	NA	20 U	NA	NA
Styrene	ug/L	5.0 U [2.5 J]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.7 U	NA	20 U	NA	NA
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.7 U	NA	20 U	NA	NA
Tetrachloroethene	ug/L	5.0 U [7.1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.7 U	NA	20 U	NA	NA
Toluene	ug/L	13 [13]	40	40	30 [50 U]	100 U	10 U	50 U	1.0 U	3.0	80	100	27	29	34	86	86	42	63
trans-1,2-Dichloroethene	ug/L	2.5 U [3.6 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.7 U	NA	20 U	NA	NA
trans-1,3-Dichloropropene	ug/L	5.0 U [7.1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	5.0 U [7.1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.7 U	NA	20 U	NA	NA
Trichlorofluoromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.7 U	NA	20 U	NA	NA
Vinyl Acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	5.0 U [7.1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.7 U	NA	20 U	NA	NA
Total 1,3-Dichloropropenes	ug/L	5.0 U [7.1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Xylenes	ug/L	330 [360]	530	530	860 [870]	1,300	170	690	7.0	85	1,400	1,700	360	460	450	1,100	1,100	1,500	2,000

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SAGINAW, MICHIGAN

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Semivolatile Organics																			
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Acetylaminofluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Naphthylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Picoline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dimethylbenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Aminobiphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorobenzilate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Sample Depth (feet):																			
Date Collected:																			
Semivolatile Organics (Cont'd.)																			
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroquinoline-1-oxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diallate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
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SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	UST 7 UST7-5 7 - 12 05/17/00	UST 7 UST7-5 7 - 12 08/01/00	UST 7 UST7-5 7 - 12 08/23/00	UST 7 UST7-5 7 - 12 10/01/00	UST 7 UST7-5 7 - 12 03/01/01	UST 7 UST7-5 7 - 12 05/01/01	UST 7 UST7-5 7 - 12 08/01/01	UST 7 UST7-5 7 - 12 02/11/02	UST 7 UST7-5 7 - 12 08/02/02	UST 7 UST7-5 7 - 12 03/03/03	UST 7 UST7-5 7 - 12 08/03/03	UST 7 UST7-5 7 - 12 02/04/04	UST 7 UST7-5 7 - 12 08/04/04	UST 7 UST7-5 7 - 12 02/21/05	UST 7 UST7-5 7 - 12 08/05/05	UST 7 UST7-5 7 - 12 08/22/05	UST 7 UST7-5 7 - 12 02/06/06	UST 7 UST7-5 7 - 12 08/06/06
Semivolatile Organics (Cont'd.)																			
Isophorone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isosafrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomethylethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenacetin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pronamide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs																			
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs-Dissolved																			
Aroclor-1016 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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ORGANIC COMPOUNDS

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PCBs-Dissolved (Cont'd.)																			
Aroclor-1248 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Organochlorine Pesticides																			
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Organophosphate Pesticides																			
4,4'-DDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Organophosphate Pesticides (Cont'd.)																			
Alpha-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Famphur	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Parathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phorate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thionazin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides																			
2,4,5-T	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans																			
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	UST 7 UST7-5 7 - 12 05/17/00	UST 7 UST7-5 7 - 12 08/01/00	UST 7 UST7-5 7 - 12 08/23/00	UST 7 UST7-5 7 - 12 10/01/00	UST 7 UST7-5 7 - 12 03/01/01	UST 7 UST7-5 7 - 12 05/01/01	UST 7 UST7-5 7 - 12 08/01/01	UST 7 UST7-5 7 - 12 02/11/02	UST 7 UST7-5 7 - 12 08/02/02	UST 7 UST7-5 7 - 12 03/03/03	UST 7 UST7-5 7 - 12 08/03/03	UST 7 UST7-5 7 - 12 02/04/04	UST 7 UST7-5 7 - 12 08/04/04	UST 7 UST7-5 7 - 12 02/21/05	UST 7 UST7-5 7 - 12 08/05/05	UST 7 UST7-5 7 - 12 08/22/05	UST 7 UST7-5 7 - 12 02/06/06	UST 7 UST7-5 7 - 12 08/06/06
Dioxins/Furans (Cont'd.)																			
2,3,4,7,8-PeCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	UST 7 UST7-5 7 - 12 03/13/08	UST 7 UST7-6 7 - 12 06/19/96
Volatile Organics			
1,1,1,2-Tetrachloroethane	ug/L	NA	NA
1,1,1-Trichloroethane	ug/L	NA	2.5 U
1,1,2,2-Tetrachloroethane	ug/L	NA	2.5 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA
1,1,2-Trichloroethane	ug/L	NA	2.5 U
1,1-Dichloroethane	ug/L	NA	2.5 U
1,1-Dichloroethene	ug/L	NA	2.5 U
1,1-Dichloropropene	ug/L	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	2.6 U
1,2-Dibromo-3-chloropropane	ug/L	NA	NA
1,2-Dibromoethane	ug/L	NA	NA
1,2-Dichlorobenzene	ug/L	NA	2.5 U
1,2-Dichloroethane	ug/L	NA	2.5 U
1,2-Dichloroethene (total)	ug/L	NA	NA
1,2-Dichloropropane	ug/L	NA	2.5 U
1,3,5-Trimethylbenzene	ug/L	NA	1.3 J
1,3-Dichlorobenzene	ug/L	NA	2.5 U
1,3-Dichloropropane	ug/L	NA	NA
1,4-Dichlorobenzene	ug/L	NA	2.5 U
1,4-Dioxane	ug/L	NA	NA
2,2-Dichloropropane	ug/L	NA	NA
2-Butanone	ug/L	NA	120 U
2-Chloro-1,3-butadiene	ug/L	NA	NA
2-Chloroethylvinylether	ug/L	NA	NA
2-Chlorotoluene	ug/L	NA	NA
2-Hexanone	ug/L	NA	120 U
3-Chloropropene	ug/L	NA	NA
4-Chlorotoluene	ug/L	NA	NA
4-Methyl-2-pentanone	ug/L	NA	120 U
Acetone	ug/L	NA	250 U
Acetonitrile	ug/L	NA	NA
Acrolein	ug/L	NA	NA
Acrylonitrile	ug/L	NA	NA
Benzene	ug/L	42 [45]	69
Bromobenzene	ug/L	NA	NA
Bromochloromethane	ug/L	NA	NA
Bromodichloromethane	ug/L	NA	2.5 U
Bromoform	ug/L	NA	2.5 U
Bromomethane	ug/L	NA	2.5 U
Carbon Disulfide	ug/L	NA	120 U
Carbon Tetrachloride	ug/L	NA	2.5 U
Chlorobenzene	ug/L	NA	2.5 U

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	UST 7 UST7-5 7 - 12 03/13/08	UST 7 UST7-6 7 - 12 06/19/96
Volatile Organics (Cont'd.)			
Chloroethane	ug/L	NA	2.5 U
Chloroform	ug/L	NA	2.5 U
Chloromethane	ug/L	NA	2.5 U
cis-1,2-Dichloroethene	ug/L	NA	2.5 U
cis-1,3-Dichloropropene	ug/L	NA	2.5 U
Cyclohexane	ug/L	NA	NA
Dibromochloromethane	ug/L	NA	2.5 U
Dibromomethane	ug/L	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA
Ethyl Methacrylate	ug/L	NA	NA
Ethylbenzene	ug/L	18 [20]	2.0 J
Hexachlorobutadiene	ug/L	NA	NA
Iodomethane	ug/L	NA	NA
Isobutanol	ug/L	NA	NA
Isopropylbenzene	ug/L	NA	NA
m&p-Xylene	ug/L	NA	NA
Methacrylonitrile	ug/L	NA	NA
Methyl acetate	ug/L	NA	NA
Methyl cyclohexane	ug/L	NA	NA
Methyl Methacrylate	ug/L	NA	NA
Methyl tert-butyl ether	ug/L	NA	12 U
Methylene Chloride	ug/L	NA	12 U
Naphthalene	ug/L	NA	NA
n-Butylbenzene	ug/L	NA	NA
n-Propylbenzene	ug/L	NA	NA
o-Xylene	ug/L	NA	NA
p-Isopropyltoluene	ug/L	NA	NA
Propionitrile	ug/L	NA	NA
sec-Butylbenzene	ug/L	NA	NA
Styrene	ug/L	NA	2.5 U
tert-Butylbenzene	ug/L	NA	NA
Tetrachloroethene	ug/L	NA	2.5 U
Toluene	ug/L	7.7 [8.1]	2.5 U
trans-1,2-Dichloroethene	ug/L	NA	2.5 U
trans-1,3-Dichloropropene	ug/L	NA	2.5 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA
Trichloroethene	ug/L	NA	2.5 U
Trichlorofluoromethane	ug/L	NA	NA
Vinyl Acetate	ug/L	NA	NA
Vinyl Chloride	ug/L	NA	2.5 U
Total 1,3-Dichloropropenes	ug/L	NA	2.5 U
Total Xylenes	ug/L	100 [110]	9.7 U

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	UST 7 UST7-5 7 - 12 03/13/08	UST 7 UST7-6 7 - 12 06/19/96
Semivolatile Organics			
1,2,4,5-Tetrachlorobenzene	ug/L	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA
1,4-Naphthoquinone	ug/L	NA	NA
1-Naphthylamine	ug/L	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	NA	NA
2,3,4,6-Tetrachlorophenol	ug/L	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA
2,6-Dichlorophenol	ug/L	NA	NA
2,6-Dinitrotoluene	ug/L	NA	NA
2-Acetylaminofluorene	ug/L	NA	NA
2-Chloronaphthalene	ug/L	NA	NA
2-Chlorophenol	ug/L	NA	NA
2-Methylnaphthalene	ug/L	NA	NA
2-Methylphenol	ug/L	NA	NA
2-Naphthylamine	ug/L	NA	NA
2-Nitroaniline	ug/L	NA	NA
2-Nitrophenol	ug/L	NA	NA
2-Picoline	ug/L	NA	NA
3&4-Methylphenol	ug/L	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA
3,3'-Dimethylbenzidine	ug/L	NA	NA
3-Methylcholanthrene	ug/L	NA	NA
3-Methylphenol	ug/L	NA	NA
3-Nitroaniline	ug/L	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	NA
4-Aminobiphenyl	ug/L	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA
4-Chloroaniline	ug/L	NA	NA
4-Chlorobenzilate	ug/L	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA
4-Methylphenol	ug/L	NA	NA

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	UST 7 UST7-5 7 - 12 03/13/08	UST 7 UST7-6 7 - 12 06/19/96
Semivolatile Organics (Cont'd.)			
4-Nitroaniline	ug/L	NA	NA
4-Nitrophenol	ug/L	NA	NA
4-Nitroquinoline-1-oxide	ug/L	NA	NA
4-Phenylenediamine	ug/L	NA	NA
5-Nitro-o-toluidine	ug/L	NA	NA
7,12-Dimethylbenz(a)anthracene	ug/L	NA	NA
a,a'-Dimethylphenethylamine	ug/L	NA	NA
Acenaphthene	ug/L	NA	NA
Acenaphthylene	ug/L	NA	NA
Acetophenone	ug/L	NA	NA
Aniline	ug/L	NA	NA
Anthracene	ug/L	NA	NA
Atrazine	ug/L	NA	NA
Benzaldehyde	ug/L	NA	NA
Benzo(a)anthracene	ug/L	NA	NA
Benzo(a)pyrene	ug/L	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA
Benzo(k)fluoranthene	ug/L	NA	NA
Benzyl Alcohol	ug/L	NA	NA
Biphenyl	ug/L	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA
bis(2-Chloroethyl)ether	ug/L	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA
Butylbenzylphthalate	ug/L	NA	NA
Caprolactam	ug/L	NA	NA
Carbazole	ug/L	NA	NA
Chrysene	ug/L	NA	NA
Diallate	ug/L	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA
Dibenzofuran	ug/L	NA	NA
Diethylphthalate	ug/L	NA	NA
Dimethylphthalate	ug/L	NA	NA
Di-n-Butylphthalate	ug/L	NA	NA
Di-n-Octylphthalate	ug/L	NA	NA
Diphenylamine	ug/L	NA	NA
Ethyl Methanesulfonate	ug/L	NA	NA
Fluoranthene	ug/L	NA	NA
Fluorene	ug/L	NA	NA
Hexachlorobenzene	ug/L	NA	NA
Hexachlorobutadiene	ug/L	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA
Hexachloroethane	ug/L	NA	NA
Hexachloropropene	ug/L	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	UST 7 UST7-5 7 - 12 03/13/08	UST 7 UST7-6 7 - 12 06/19/96
Semivolatile Organics (Cont'd.)			
Isophorone	ug/L	NA	NA
Isosafrole	ug/L	NA	NA
Methapyrilene	ug/L	NA	NA
Methyl Methanesulfonate	ug/L	NA	NA
Naphthalene	ug/L	NA	NA
Nitrobenzene	ug/L	NA	NA
N-Nitrosodiethylamine	ug/L	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA
N-Nitroso-di-n-butylamine	ug/L	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA
N-Nitrosodiphenylamine	ug/L	NA	NA
N-Nitrosomethylethylamine	ug/L	NA	NA
N-Nitrosomorpholine	ug/L	NA	NA
N-Nitrosopiperidine	ug/L	NA	NA
N-Nitrosopyrrolidine	ug/L	NA	NA
o-Toluidine	ug/L	NA	NA
p-Dimethylaminoazobenzene	ug/L	NA	NA
Pentachlorobenzene	ug/L	NA	NA
Pentachloroethane	ug/L	NA	NA
Pentachloronitrobenzene	ug/L	NA	NA
Pentachlorophenol	ug/L	NA	NA
Phenacetin	ug/L	NA	NA
Phenanthrene	ug/L	NA	NA
Phenol	ug/L	NA	NA
Pronamide	ug/L	NA	NA
Pyrene	ug/L	NA	NA
Pyridine	ug/L	NA	NA
Safrole	ug/L	NA	NA
Total Methylphenols	ug/L	NA	NA
PCBs			
Aroclor-1016	ug/L	NA	NA
Aroclor-1221	ug/L	NA	NA
Aroclor-1232	ug/L	NA	NA
Aroclor-1242	ug/L	NA	NA
Aroclor-1248	ug/L	NA	NA
Aroclor-1254	ug/L	NA	NA
Aroclor-1260	ug/L	NA	NA
Aroclor-1262	ug/L	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA
Total PCBs	ug/L	NA	NA
PCBs-Dissolved			
Aroclor-1016 (Dissolved)	ug/L	NA	NA
Aroclor-1221 (Dissolved)	ug/L	NA	NA
Aroclor-1232 (Dissolved)	ug/L	NA	NA
Aroclor-1242 (Dissolved)	ug/L	NA	NA

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ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	UST 7 UST7-5 7 - 12 03/13/08	UST 7 UST7-6 7 - 12 06/19/96
PCBs-Dissolved (Cont'd.)			
Aroclor-1248 (Dissolved)	ug/L	NA	NA
Aroclor-1254 (Dissolved)	ug/L	NA	NA
Aroclor-1260 (Dissolved)	ug/L	NA	NA
Aroclor-1262 (Dissolved)	ug/L	NA	NA
Aroclor-1268 (Dissolved)	ug/L	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA
Organochlorine Pesticides			
4,4'-DDD	ug/L	NA	NA
4,4'-DDE	ug/L	NA	NA
4,4'-DDT	ug/L	NA	NA
Aldrin	ug/L	NA	NA
Alpha-BHC	ug/L	NA	NA
Alpha-Chlordane	ug/L	NA	NA
Aroclor-1016	ug/L	NA	0.2 U
Aroclor-1221	ug/L	NA	0.2 U
Aroclor-1232	ug/L	NA	0.4 U
Aroclor-1242	ug/L	NA	0.2 U
Aroclor-1248	ug/L	NA	0.2 UJ
Aroclor-1254	ug/L	NA	0.2 U
Aroclor-1260	ug/L	NA	0.2 U
Aroclor-1262	ug/L	NA	NA
Aroclor-1268 (PCB-1268)	ug/L	NA	NA
Beta-BHC	ug/L	NA	NA
Delta-BHC	ug/L	NA	NA
Dieldrin	ug/L	NA	NA
Endosulfan I	ug/L	NA	NA
Endosulfan II	ug/L	NA	NA
Endosulfan Sulfate	ug/L	NA	NA
Endrin	ug/L	NA	NA
Endrin Aldehyde	ug/L	NA	NA
Endrin Ketone	ug/L	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA
Gamma-Chlordane	ug/L	NA	NA
Heptachlor	ug/L	NA	NA
Heptachlor Epoxide	ug/L	NA	NA
Isodrin	ug/L	NA	NA
Kepone	ug/L	NA	NA
Methoxychlor	ug/L	NA	NA
Toxaphene	ug/L	NA	NA
Organophosphate Pesticides			
4,4'-DDD	ug/L	NA	NA
4,4'-DDE	ug/L	NA	NA
4,4'-DDT	ug/L	NA	NA
Aldrin	ug/L	NA	NA
Alpha-BHC	ug/L	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	UST 7 UST7-5 7 - 12 03/13/08	UST 7 UST7-6 7 - 12 06/19/96
Organophosphate Pesticides (Cont'd.)			
Alpha-Chlordane	ug/L	NA	NA
Beta-BHC	ug/L	NA	NA
Delta-BHC	ug/L	NA	NA
Dieldrin	ug/L	NA	NA
Dimethoate	ug/L	NA	NA
Disulfoton	ug/L	NA	NA
Endosulfan I	ug/L	NA	NA
Endosulfan II	ug/L	NA	NA
Endosulfan Sulfate	ug/L	NA	NA
Endrin	ug/L	NA	NA
Endrin Aldehyde	ug/L	NA	NA
Endrin Ketone	ug/L	NA	NA
Ethyl Parathion	ug/L	NA	NA
Famphur	ug/L	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA
Gamma-Chlordane	ug/L	NA	NA
Heptachlor	ug/L	NA	NA
Heptachlor Epoxide	ug/L	NA	NA
Methoxychlor	ug/L	NA	NA
Methyl Parathion	ug/L	NA	NA
o,o,o-Triethylphosphorothioate	ug/L	NA	NA
Phorate	ug/L	NA	NA
Sulfotep	ug/L	NA	NA
Thionazin	ug/L	NA	NA
Toxaphene	ug/L	NA	NA
Herbicides			
2,4,5-T	ug/L	NA	NA
2,4,5-TP	ug/L	NA	NA
2,4-D	ug/L	NA	NA
Dinoseb	ug/L	NA	NA
Dioxins/Furans			
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	ug/L	NA	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	ug/L	NA	NA
1,2,3,4,6,7,8-HpCDD	ug/L	NA	NA
1,2,3,4,6,7,8-HpCDF	ug/L	NA	NA
1,2,3,4,7,8,9-HpCDF	ug/L	NA	NA
1,2,3,4,7,8-HxCDD	ug/L	NA	NA
1,2,3,4,7,8-HxCDF	ug/L	NA	NA
1,2,3,6,7,8-HxCDD	ug/L	NA	NA
1,2,3,6,7,8-HxCDF	ug/L	NA	NA
1,2,3,7,8,9-HxCDD	ug/L	NA	NA
1,2,3,7,8,9-HxCDF	ug/L	NA	NA
1,2,3,7,8-PeCDD	ug/L	NA	NA
1,2,3,7,8-PeCDF	ug/L	NA	NA
2,3,4,6,7,8-HxCDF	ug/L	NA	NA

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TABLE A-1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
ORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	UST 7 UST7-5 7 - 12 03/13/08	UST 7 UST7-6 7 - 12 06/19/96
Dioxins/Furans (Cont'd.)			
2,3,4,7,8-PeCDF	ug/L	NA	NA
2,3,7,8-TCDD	ug/L	NA	NA
2,3,7,8-TCDF	ug/L	NA	NA
Total Heptachlorodibenzofuran (HpCDF)	ug/L	NA	NA
Total Heptachlorodibenzo-p-dioxin (HpCDD)	ug/L	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	ug/L	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	ug/L	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	ug/L	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	ug/L	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	ug/L	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	ug/L	NA	NA
2,3,7,8-TCDD (TEQ)	ug/L	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Flammability and Explosivity Screening Level (FE)	Acute Inhalation Screening Level (GAI)	Groundwater Contact Criteria (GCC)	Groundwater Surface Water Interface (GSI)	Industrial & Commercial II, III & IV Drinking Water Criteria (IDW)	Industrial & Commercial II, III & IV Groundwater Volatilization to Indoor Air Inhalation (IGVIA)	Residential & Commercial I Drinking Water Criteria (RDW)	Residential & Commercial I Groundwater Volatilization to Indoor Air Inhalation Criteria (RGVIA)	Water Solubility (WS)	Center Street Area MW-4 2 - 12 07/29/95	Center Street Area MW-4 2 - 12 06/10/96
Inorganics												
Aluminum	ug/L	{ID}	{ID}	64,000,000 {B}	{NA}	4,100 {B,V}	{NLV}	300 {B,V}	{NLV}	{NA}	NA	NA
Antimony	ug/L	{ID}	{ID}	68,000	130 {X}	6 {A}	{NLV}	6 {A}	{NLV}	{NA}	NA	NA
Arsenic	ug/L	{ID}	{ID}	4,300	150 {X}	10 {A}	{NLV}	10 {A}	{NLV}	{NA}	NA	NA
Barium	ug/L	{ID}	{ID}	14,000,000 {B}	1,200 {B,G,X}	2,000 {B,A}	{NLV}	2,000 {B,A}	{NLV}	{NA}	NA	NA
Beryllium	ug/L	{ID}	{ID}	290,000	26 {G}	4 {A}	{NLV}	4 {A}	{NLV}	{NA}	NA	NA
Cadmium	ug/L	{ID}	{ID}	190,000 {B}	4.5 {B,G,X}	5 {B,A}	{NLV}	5 {B,A}	{NLV}	{NA}	NA	NA
Calcium	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA
Chromium Total	ug/L	{ID}	{ID}	460,000	11	100 {A}	{NLV}	100 {A}	{NLV}	{NA}	NA	NA
Cobalt	ug/L	{ID}	{ID}	2,400,000	100	100	{NLV}	40	{NLV}	{NA}	NA	NA
Copper	ug/L	{ID}	{ID}	7,400,000 {B}	20 {B,G}	4,000 {B,E}	{NLV}	1,400 {B,E}	{NLV}	{NA}	NA	NA
Cyanide (total)	ug/L	{ID}	{ID}	57,000 {P,R}	5.2 {P,R}	200 {P,R,A}	{NLV}	200 {P,R,A}	{NLV}	{NA}	5.00 U	NA
Ferrous Iron	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA
Iron	ug/L	{ID}	{ID}	58,000,000 {B}	{NA}	13,000 {B,E}	{NLV}	13,000 {B,E}	{NLV}	{NA}	NA	NA
Lead	ug/L	{ID}	{ID}	{ID}	28 {B,G,X}	6 {B,L}	{NLV}	6 {B,L}	{NLV}	{NA}	NA	NA
Magnesium	ug/L	{ID}	{ID}	1,000,000,000 {B,D}	{B}	1,100,000 {B}	{NLV}	400,000 {B}	{NLV}	{NA}	NA	NA
Manganese	ug/L	{ID}	{ID}	9,100,000 {B}	4,400 {B,G,X}	2,500 {B,E}	{NLV}	2,100 {B,E}	{NLV}	{NA}	NA	NA
Mercury	ug/L	{ID}	{ID}	56 {B,Z,S}	0.0013 {B,Z}	2 {A,B,Z}	56 {B,Z,S}	2 {B,Z,A}	56 {B,Z,S}	56 {B,Z}	NA	NA
Molybdenum	ug/L	{ID}	{ID}	970,000 {B}	800 {B,X}	210 {B}	{NLV}	73 {B}	{NLV}	{NA}	NA	NA
Nickel	ug/L	{ID}	{ID}	74,000,000 {B}	120 {B,G}	100 {B,A}	{NLV}	100 {B,A}	{NLV}	{NA}	NA	NA
Potassium	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA
Selenium	ug/L	{ID}	{ID}	970,000 {B}	5 {B}	50 {B,A}	{NLV}	50 {B,A}	{NLV}	{NA}	NA	NA
Silver	ug/L	{ID}	{ID}	1,500,000 {B}	0.2 {B,M}	98 {B}	{NLV}	34 {B}	{NLV}	{NA}	NA	NA
Sodium	ug/L	{ID}	{ID}	1,000,000,000 {D}	{NA}	350,000	{NLV}	120,000	{NLV}	{NA}	NA	NA
Thallium	ug/L	{ID}	{ID}	13,000 {B}	3.7 {B,I, X}	2 {B,A}	{NLV}	2 {B,A}	{NLV}	{NA}	NA	NA
Tin	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA
Vanadium	ug/L	{ID}	{ID}	970,000	12	62	{NLV}	4.5	{NLV}	{NA}	NA	NA
Zinc	ug/L	{ID}	{ID}	110,000,000 {B}	260 {B,G}	20,000 {B,E}	{NLV}	20,000 {B}	{NLV}	{NA}	NA	NA
Inorganics-Dissolved												
Aluminum (Dissolved)	ug/L	{ID}	{ID}	64,000,000 {B}	{NA}	4,100 {B,V}	{NLV}	300 {B,V}	{NLV}	{NA}	NA	113 U
Antimony (Dissolved)	ug/L	{ID}	{ID}	68,000	130 {X}	6 {A}	{NLV}	6 {A}	{NLV}	{NA}	NA	6.9
Arsenic (Dissolved)	ug/L	{ID}	{ID}	4,300	150 {X}	10 {A}	{NLV}	10 {A}	{NLV}	{NA}	NA	5 U
Barium (Dissolved)	ug/L	{ID}	{ID}	14,000,000 {B}	1,200 {B,G,X}	2,000 {B,A}	{NLV}	2,000 {B,A}	{NLV}	{NA}	NA	248
Beryllium (Dissolved)	ug/L	{ID}	{ID}	290,000	26 {G}	4 {A}	{NLV}	4 {A}	{NLV}	{NA}	NA	5 U
Cadmium (Dissolved)	ug/L	{ID}	{ID}	190,000 {B}	4.5 {B,G,X}	5 {B,A}	{NLV}	5 {B,A}	{NLV}	{NA}	NA	0.5 U
Calcium (Dissolved)	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	252,000
Chromium Total (Dissolved)	ug/L	{ID}	{ID}	460,000	11	100 {A}	{NLV}	100 {A}	{NLV}	{NA}	NA	50 U
Cobalt (Dissolved)	ug/L	{ID}	{ID}	2,400,000	100	100	{NLV}	40	{NLV}	{NA}	NA	50 U
Copper (Dissolved)	ug/L	{ID}	{ID}	7,400,000 {B}	20 {B,G}	4,000 {B,E}	{NLV}	1,400 {B,E}	{NLV}	{NA}	NA	25 U
Cyanide (Dissolved)	ug/L	{ID}	{ID}	57,000 {P,R}	5.2 {P,R}	200 {P,R,A}	{NLV}	200 {P,R,A}	{NLV}	{NA}	NA	5 U
Iron (Dissolved)	ug/L	{ID}	{ID}	58,000,000 {B}	{NA}	13,000 {B,E}	{NLV}	13,000 {B,E}	{NLV}	{NA}	NA	1,220 J
Lead (Dissolved)	ug/L	{ID}	{ID}	{ID}	28 {B,G,X}	6 {B,L}	{NLV}	6 {B,L}	{NLV}	{NA}	NA	3 U
Magnesium (Dissolved)	ug/L	{ID}	{ID}	1,000,000,000 {B,D}	{B}	1,100,000 {B}	{NLV}	400,000 {B}	{NLV}	{NA}	NA	88,200
Manganese (Dissolved)	ug/L	{ID}	{ID}	9,100,000 {B}	4,400 {B,G,X}	2,500 {B,E}	{NLV}	2,100 {B,E}	{NLV}	{NA}	NA	280 J
Mercury	ug/L	{ID}	{ID}	56 {B,Z,S}	0.0013 {B,Z}	2 {A,B,Z}	56 {B,Z,S}	2 {B,Z,A}	56 {B,Z,S}	56 {B,Z}	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Flammability and Explosivity Screening Level (FE)	Acute Inhalation Screening Level (GAI)	Groundwater Contact Criteria (GCC)	Groundwater Surface Water Interface (GSI)	Industrial & Commercial II, III & IV Drinking Water Criteria (IDW)	Industrial & Commercial II, III & IV Groundwater Volatilization to Indoor Air Inhalation (IGVIA)	Residential & Commercial I Drinking Water Criteria (RDW)	Residential & Commercial I Groundwater Volatilization to Indoor Air Inhalation Criteria (RGVIA)	Water Solubility (WS)	Center Street Area MW-4 2 - 12 07/29/95	Center Street Area MW-4 2 - 12 06/10/96
Inorganics-Dissolved (Cont'd.)												
Mercury (Dissolved)	ug/L	{ID}	{ID}	56 {B,Z,S}	0.0013 {B,Z}	2 {A,B,Z}	56 {B,Z,S}	2 {B,Z,A}	56 {B,Z,S}	56 {B,Z}	NA	0.2 U
Nickel (Dissolved)	ug/L	{ID}	{ID}	74,000,000 {B}	120 {B,G}	100 {B,A}	{NLV}	100 {B,A}	{NLV}	{NA}	NA	50 U
Potassium (Dissolved)	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	17,400
Selenium	ug/L	{ID}	{ID}	970,000 {B}	5 {B}	50 {B,A}	{NLV}	50 {B,A}	{NLV}	{NA}	NA	NA
Selenium (Dissolved)	ug/L	{ID}	{ID}	970,000 {B}	5 {B}	50 {B,A}	{NLV}	50 {B,A}	{NLV}	{NA}	NA	5 U
Silver (Dissolved)	ug/L	{ID}	{ID}	1,500,000 {B}	0.2 {B,M}	98 {B}	{NLV}	34 {B}	{NLV}	{NA}	NA	0.5 U
Sodium (Dissolved)	ug/L	{ID}	{ID}	1,000,000,000 {D}	{NA}	350,000	{NLV}	120,000	{NLV}	{NA}	NA	220,000
Thallium (Dissolved)	ug/L	{ID}	{ID}	13,000 {B}	3.7 {B,I, X}	2 {B,A}	{NLV}	2 {B,A}	{NLV}	{NA}	NA	16 UJ
Tin (Dissolved)	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA
Vanadium (Dissolved)	ug/L	{ID}	{ID}	970,000	12	62	{NLV}	4.5	{NLV}	{NA}	NA	20 U
Zinc (Dissolved)	ug/L	{ID}	{ID}	110,000,000 {B}	260 {B,G}	20,000 {B,E}	{NLV}	20,000 {B}	{NLV}	{NA}	NA	20 U
Miscellaneous												
Alkalinity, Carbonate	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA
Ammonia Nitrogen	ug/L	{ID}	3,500,000	{ID}	- -	10,000 {N}	7,100,000	10,000 {N}	3,200,000	530,000,000	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA
Bromide	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA
Calcium Carbonate	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA
Chemical Oxygen Demand (COD)	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA
Chloride	ug/L	{ID}	{ID}	{ID}	{FF}	250,000 {E}	{NLV}	250,000 {E}	{NLV}	{NA}	NA	NA
Estimated Un-ionized Ammonia	ug/L	- -	- -	- -	53 {CC}	- -	- -	- -	- -	- -	NA	NA
Ferrous Iron	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA
Hardness	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA
Ignitability	DEG F	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA
Iron	ug/L	{ID}	{ID}	58,000,000 {B}	{NA}	13,000 {B,E}	{NLV}	13,000 {B,E}	{NLV}	{NA}	NA	NA
Manganese	ug/L	{ID}	{ID}	9,100,000 {B}	4,400 {B,G,X}	2,500 {B,E}	{NLV}	2,100 {B,E}	{NLV}	{NA}	NA	NA
Nitrate (as N)	ug/L	{ID}	{ID}	310,000,000 {B,N}	{NA}	10,000 {B,A,N}	{NLV}	10,000 {B,N,A}	{NLV}	{NA}	NA	NA
Nitrite (as N)	ug/L	{ID}	{ID}	{ID}	{NA}	1,000 {B,A,N}	{NLV}	1,000 {B,N,A}	{NLV}	{NA}	NA	NA
Nitrogen	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA
Oil and Grease	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA
pH	S.U.	{NA}	{NA}	{NA}	{6.5 to 9.0}	{6.5 to 8.5 (E)}	{NA}	{6.5 to 8.5 (E)}	{NA}	{NA}	NA	NA
Phenolics (Total)	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA
Phosphorus	ug/L	{ID}	{ID}	{ID}	1,000 {EE}	240,000	{NLV}	63,000	{NLV}	{NA}	NA	NA
Sulfate	ug/L	{ID}	{ID}	{ID}	{NA}	250,000 {E}	{NLV}	250,000 {E}	{NLV}	{NA}	NA	NA
Sulfide	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA
Surfactants	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA
Total Dissolved Solids (TDS)	ug/L	{NA}	{NA}	{NA}	500,000 {EE}	500,000 {E}	{NA}	500,000 {E}	{NA}	{NA}	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA
Total Organic Carbon (TOC)	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA
Total Suspended Solids (TSS)	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA

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TABLE A-2
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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Flammability and Explosivity Screening Level (FE)	Acute Inhalation Screening Level (GAI)	Groundwater Contact Criteria (GCC)	Groundwater Surface Water Interface (GSI)	Industrial & Commercial II, III & IV Drinking Water Criteria (IDW)	Industrial & Commercial II, III & IV Groundwater Volatilization to Indoor Air Inhalation (IGVIA)	Residential & Commercial I Drinking Water Criteria (RDW)	Residential & Commercial I Groundwater Volatilization to Indoor Air Inhalation Criteria (RGVIA)	Water Solubility (WS)	Center Street Area MW-4 2 - 12 07/29/95	Center Street Area MW-4 2 - 12 06/10/96
Gases												
Carbon Dioxide by Headspace	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA
Carbon monoxide	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA
Dissolved Oxygen	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA
Ethane	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA
Ethene	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA
Methane	ug/L	520 {K}	{ID}	{ID}	{NA}	{ID}	{K}	{ID}	{K}	{NA}	NA	NA
Nitrogen	ug/L	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA

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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Center Street Area MW-101WT 13 - 23 07/28/95	Center Street Area MW-101WT 13 - 23 06/05/96	Center Street Area MW-101WT 13 - 23 03/12/97	Center Street Area MW-101WT 13 - 23 05/18/00	Center Street Area MW-101WT 13 - 23 06/03/08	Center Street Area MW-102S1 27 - 32 07/25/95	Center Street Area MW-102S1 27 - 32 06/03/96	Center Street Area MW-102WT 9 - 19 07/25/95	Center Street Area MW-102WT 9 - 19 06/03/96
Inorganics										
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	5.00 U	NA	NA	NA	NA	5.00 U	NA	5.00 U	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	499	40.0	NA	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	27.2	6.00	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved										
Aluminum (Dissolved)	ug/L	237	124	NA	NA	NA	100 U	100 U	100 U	182 U
Antimony (Dissolved)	ug/L	5 U	5 U	NA	NA	NA	5 U	5 U	5 U	5 U
Arsenic (Dissolved)	ug/L	1 U	5 U	NA	NA	NA	1	5 U	5.3	5.3
Barium (Dissolved)	ug/L	200 U	200 U	NA	NA	NA	200 U	200 U	409	449
Beryllium (Dissolved)	ug/L	5 U	5 U	NA	NA	NA	5 U	5 U	5 U	5 U
Cadmium (Dissolved)	ug/L	0.2 UJ	0.5 U	NA	NA	NA	0.2 UJ	0.5 UJ	0.2 UJ	0.5 U
Calcium (Dissolved)	ug/L	95,900	99,700	NA	NA	NA	204,000	217,000	150,000	165,000
Chromium Total (Dissolved)	ug/L	50 U	50 U	NA	NA	NA	50 U	50 U	50 U	50 U
Cobalt (Dissolved)	ug/L	50 U	50 U	NA	NA	NA	50 U	50 U	50 U	50 U
Copper (Dissolved)	ug/L	25 U	25 U	NA	NA	NA	25 U	25 U	25 U	25 U
Cyanide (Dissolved)	ug/L	NA	5 U	NA	NA	NA	NA	5 U	NA	5 U
Iron (Dissolved)	ug/L	237	100 U	40	13,000	NA	843	2,960 J	25,900	27,700 J
Lead (Dissolved)	ug/L	5.9	3 U	NA	NA	NA	3 U	3 U	3 U	3 U
Magnesium (Dissolved)	ug/L	94,500	106,000	NA	NA	NA	73,900	81,500	71,100	75,200
Manganese (Dissolved)	ug/L	48	51.2	7	570	NA	149	179	382	354
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Center Street Area MW-101WT 13 - 23 07/28/95	Center Street Area MW-101WT 13 - 23 06/05/96	Center Street Area MW-101WT 13 - 23 03/12/97	Center Street Area MW-101WT 13 - 23 05/18/00	Center Street Area MW-101WT 13 - 23 06/03/08	Center Street Area MW-102S1 27 - 32 07/25/95	Center Street Area MW-102S1 27 - 32 06/03/96	Center Street Area MW-102WT 9 - 19 07/25/95	Center Street Area MW-102WT 9 - 19 06/03/96
Inorganics-Dissolved (Cont'd.)										
Mercury (Dissolved)	ug/L	0.2 U	0.2 U	NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U
Nickel (Dissolved)	ug/L	50 U	50 U	NA	NA	NA	50 U	50 U	50 U	50 U
Potassium (Dissolved)	ug/L	5,000 U	5,000 U	NA	NA	NA	15,500	17,400	11,400	9,600
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 U	5 U	NA	NA	NA	5 U	5 U	5 U	5 U
Silver (Dissolved)	ug/L	0.5 U	0.5	NA	NA	NA	0.5 U	0.5 U	0.5 U	0.5 UJ
Sodium (Dissolved)	ug/L	82,400	87,100	NA	NA	NA	106,000	122,000	54,700	44,300
Thallium (Dissolved)	ug/L	2 UJ	4 UJ	NA	NA	NA	2 UJ	2 UJ	2 UJ	2 UJ
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	20 U	20 U	NA	NA	NA	20 U	20 U	20 U	20 U
Zinc (Dissolved)	ug/L	20 U	147	NA	NA	NA	56	20 U	20 U	20 U
Miscellaneous										
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	NA	NA	200	NA	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	NA	NA	14.4	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	20 U	20 U	14,000	NA	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	14,000	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	600	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	80 U	600	NA	NA	NA	NA	NA	NA
Nitrite (as N)	ug/L	NA	70 U	70 U	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	50 U	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	NA	138,000	160,000	5,000 U	NA	NA	NA	NA	NA
Sulfide	ug/L	NA	1,300	1,100	2,000 U	NA	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	NA	NA	860,000	NA	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	2,400	2,300	45,000	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Center Street Area MW-101WT 13 - 23 07/28/95	Center Street Area MW-101WT 13 - 23 06/05/96	Center Street Area MW-101WT 13 - 23 03/12/97	Center Street Area MW-101WT 13 - 23 05/18/00	Center Street Area MW-101WT 13 - 23 06/03/08	Center Street Area MW-102S1 27 - 32 07/25/95	Center Street Area MW-102S1 27 - 32 06/03/96	Center Street Area MW-102WT 9 - 19 07/25/95	Center Street Area MW-102WT 9 - 19 06/03/96
Gases										
Carbon Dioxide by Headspace	ug/L	NA	48,500	53,500	45,880	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	400 U	400 U	400 U	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	5,900	5,780	2,100	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	200 U	70 U	70 U	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	16,500	16,500	23,900	NA	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Center Street Area MW-103S1 32.5 - 37.5 07/12/95	Center Street Area MW-103S1 32.5 - 37.5 06/04/96	Center Street Area MW-103S2 47.5 - 52.5 07/12/95	Center Street Area MW-103S2 47.5 - 52.5 06/04/96	Center Street Area MW-103WT 8 - 18 07/12/95	Center Street Area MW-103WT 8 - 18 06/04/96	Center Street Area MW-104S1 33 - 38 07/12/95	Center Street Area MW-104S1 33 - 38 06/04/96	Center Street Area MW-104S2 45 - 50 07/12/95
Inorganics										
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	5.00 U	NA	6.70	NA	8.00	NA	5.00 U	NA	5.00 U
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved										
Aluminum (Dissolved)	ug/L	100 U	101	169	206 [100 U]	100 U	100 U	100 U	100 U	192
Antimony (Dissolved)	ug/L	5 U	NA	5 U	NA	5 U	NA	5 U	NA	5 U
Arsenic (Dissolved)	ug/L	2.9	NA	2.8	NA	2.5	NA	12.2	NA	5.4
Barium (Dissolved)	ug/L	365	326	657	616 [698]	1,030	914	245	326	688
Beryllium (Dissolved)	ug/L	5 U	NA	5 U	NA	5 U	NA	5 U	NA	5 U
Cadmium (Dissolved)	ug/L	0.2 U	NA	0.2 U	NA	0.2 U	NA	0.2 U	NA	0.2 UJ
Calcium (Dissolved)	ug/L	206,000	NA	790,000	NA	20,400	NA	148,000	NA	763,000
Chromium Total (Dissolved)	ug/L	50 U	NA	50 U	NA	50 U	NA	50 U	NA	50 U
Cobalt (Dissolved)	ug/L	50 U	NA	50 U	NA	50 U	NA	50 U	NA	50 U
Copper (Dissolved)	ug/L	25 U	NA	27	NA	25 U	NA	25 U	NA	27
Cyanide (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron (Dissolved)	ug/L	18,600	16,700 J	21,300	21,200 J [24,500]	1,160	6,770 J	21,800	31,000	20,400
Lead (Dissolved)	ug/L	3 U	NA	3 U	NA	3 U	NA	3 U	NA	3 U
Magnesium (Dissolved)	ug/L	55,900	NA	258,000	NA	30,900	NA	41,700	NA	251,000
Manganese (Dissolved)	ug/L	627	614	1,060	1,010 [1,180]	86	328	515	631	946
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Center Street Area MW-103S1 32.5 - 37.5 07/12/95	Center Street Area MW-103S1 32.5 - 37.5 06/04/96	Center Street Area MW-103S2 47.5 - 52.5 07/12/95	Center Street Area MW-103S2 47.5 - 52.5 06/04/96	Center Street Area MW-103WT 8 - 18 07/12/95	Center Street Area MW-103WT 8 - 18 06/04/96	Center Street Area MW-104S1 33 - 38 07/12/95	Center Street Area MW-104S1 33 - 38 06/04/96	Center Street Area MW-104S2 45 - 50 07/12/95
Inorganics-Dissolved (Cont'd.)										
Mercury (Dissolved)	ug/L	0.2 U	NA	0.2 U	NA	0.2 U	NA	0.2 U	NA	0.2 U
Nickel (Dissolved)	ug/L	50 U	NA	50 U	NA	50 U	NA	50 U	NA	50 U
Potassium (Dissolved)	ug/L	5,000 U	NA	27,800	NA	59,300	NA	5,000 U	NA	22,800
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 U	NA	5 U	NA	5 U	NA	5 U	NA	5 U
Silver (Dissolved)	ug/L	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U
Sodium (Dissolved)	ug/L	561,000	504,000	4,140,000	3,970,000 [4,660,000]	419,000	386,000	301,000	355,000	4,170,000
Thallium (Dissolved)	ug/L	2 UJ	NA	8 UJ*	NA	2 UJ	NA	2 UJ	NA	8 UJ*
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	20 U	NA	56	NA	20 U	NA	20 U	NA	54
Zinc (Dissolved)	ug/L	20 U	20 U	20 U	20 U [20 U]	20 U	20 U	20 U	20 U	20 U
Miscellaneous										
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Center Street Area MW-103S1 32.5 - 37.5 07/12/95	Center Street Area MW-103S1 32.5 - 37.5 06/04/96	Center Street Area MW-103S2 47.5 - 52.5 07/12/95	Center Street Area MW-103S2 47.5 - 52.5 06/04/96	Center Street Area MW-103WT 8 - 18 07/12/95	Center Street Area MW-103WT 8 - 18 06/04/96	Center Street Area MW-104S1 33 - 38 07/12/95	Center Street Area MW-104S1 33 - 38 06/04/96	Center Street Area MW-104S2 45 - 50 07/12/95
Gases										
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	Center Street Area MW-104S2 45 - 50 06/05/96	Center Street Area MW-104WT 7 - 17 07/12/95	Center Street Area MW-104WT 7 - 17 06/04/96	Center Street Area MW-105S1 36.5 - 41.5 07/12/95	Center Street Area MW-105S2 43 - 48 07/12/95	Center Street Area MW-105WT 5 - 15 07/12/95	Center Street Area MW-106S1 16.5 - 19 07/12/95	Center Street Area MW-106S1 16.5 - 19 06/07/96	Center Street Area MW-106S2 23 - 25.5 07/12/95
Inorganics										
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	13.0	NA	5.00 U	5.00 U	5.00 U	5.00 U	NA	5.00 U
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved										
Aluminum (Dissolved)	ug/L	320	100 U	137	100 U	100 U	100 U	100 U	NA	100 U
Antimony (Dissolved)	ug/L	NA	5 U	NA	5 U	5 U	5 U	5 U	NA	5 U
Arsenic (Dissolved)	ug/L	NA	5.1	NA	1.2	1 UJ	2.3	1.2	NA	2.5
Barium (Dissolved)	ug/L	663	2,290	1,440	361	650	200 U	200 U	NA	200 U
Beryllium (Dissolved)	ug/L	NA	5 U	NA	5 U	5 U	5 U	5 U	NA	5 U
Cadmium (Dissolved)	ug/L	NA	0.2 U	NA	0.4 U	0.2 U	0.2 U	0.2 U	NA	0.2 U
Calcium (Dissolved)	ug/L	NA	178,000	NA	132,000	365,000	91,900	84,000	NA	50,100
Chromium Total (Dissolved)	ug/L	NA	50 U	NA	50 U	50 U	50 U	50 U	NA	50 U
Cobalt (Dissolved)	ug/L	NA	50 U	NA	50 U	50 U	50 U	50 U	NA	50 U
Copper (Dissolved)	ug/L	NA	25 U	NA	25 U	25 U	25 U	25 U	NA	25 U
Cyanide (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron (Dissolved)	ug/L	21,600	27,600	20,700 J	8,640	16,400	2,400	1,500	R	1,520
Lead (Dissolved)	ug/L	NA	3 U	NA	3 U	3 U	3 U	3 U	NA	3 U
Magnesium (Dissolved)	ug/L	NA	95,000	NA	45,900	117,000	13,000	18,900	NA	14,900
Manganese (Dissolved)	ug/L	968	631	694	440	633	737	496	596	583
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Center Street Area MW-104S2 45 - 50 06/05/96	Center Street Area MW-104WT 7 - 17 07/12/95	Center Street Area MW-104WT 7 - 17 06/04/96	Center Street Area MW-105S1 36.5 - 41.5 07/12/95	Center Street Area MW-105S2 43 - 48 07/12/95	Center Street Area MW-105WT 5 - 15 07/12/95	Center Street Area MW-106S1 16.5 - 19 07/12/95	Center Street Area MW-106S1 16.5 - 19 06/07/96	Center Street Area MW-106S2 23 - 25.5 07/12/95
Inorganics-Dissolved (Cont'd.)										
Mercury (Dissolved)	ug/L	NA	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U
Nickel (Dissolved)	ug/L	NA	50 U	NA	50 U	50 U	50 U	50 U	NA	50 U
Potassium (Dissolved)	ug/L	NA	47,400	NA	5,080	11,600	6,790	5,000 U	NA	5,000 U
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	5 U	NA	5 U	5 U	5 U	5 U	NA	5 U
Silver (Dissolved)	ug/L	NA	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
Sodium (Dissolved)	ug/L	3,910,000	1,630,000	2,000,000	381,000	1,430,000	41,800	39,900	39,200	121,000
Thallium (Dissolved)	ug/L	NA	4 UJ*	NA	2 UJ	4 UJ*	2 UJ	2 UJ	NA	2 UJ
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	20 U	NA	20 U	27	20 U	20 U	NA	20 U
Zinc (Dissolved)	ug/L	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	R
Miscellaneous										
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Center Street Area MW-104S2 45 - 50 06/05/96	Center Street Area MW-104WT 7 - 17 07/12/95	Center Street Area MW-104WT 7 - 17 06/04/96	Center Street Area MW-105S1 36.5 - 41.5 07/12/95	Center Street Area MW-105S2 43 - 48 07/12/95	Center Street Area MW-105WT 5 - 15 07/12/95	Center Street Area MW-106S1 16.5 - 19 07/12/95	Center Street Area MW-106S1 16.5 - 19 06/07/96	Center Street Area MW-106S2 23 - 25.5 07/12/95
Gases										
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	Center Street Area MW-106S2 23 - 25.5 06/07/96	Center Street Area MW-106WT 8 - 13 07/12/95	Center Street Area MW-106WT 8 - 13 06/07/96	Center Street Area MW-136S1 37 - 42 07/20/95	Center Street Area MW-136S2 44 - 49 07/20/95	Center Street Area MW-136WT 13 - 23 07/20/95	Center Street Area MW-140S1 28.5 - 33.5 07/20/95	Center Street Area MW-140S1 28.5 - 33.5 06/05/96	Center Street Area MW-140S2 45.5 - 50.5 07/20/95
Inorganics										
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	5.00 U	NA	5.00 U	5.00 U	5.00 U	5.00 U	NA	5.00 U
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved										
Aluminum (Dissolved)	ug/L	NA	100 U	NA	100 U	100 U	100 U	100 U	NA	156
Antimony (Dissolved)	ug/L	NA	5 U	NA	5 U	5 U	5 U	5 U	NA	5 U
Arsenic (Dissolved)	ug/L	NA	30.6	NA	1.6	1.2	2.1	10.2	NA	1.2
Barium (Dissolved)	ug/L	NA	200 U	NA	200 U	276	1,160	284	NA	682
Beryllium (Dissolved)	ug/L	NA	5 U	NA	5 U	5 U	5 U	5 U	NA	5 U
Cadmium (Dissolved)	ug/L	NA	0.2 U	NA	0.2 UJ	0.2 UJ	0.2 UJ	0.2 UJ	NA	0.2 UJ
Calcium (Dissolved)	ug/L	NA	92,400	NA	119,000	199,000	28,700	198,000	NA	703,000
Chromium Total (Dissolved)	ug/L	NA	50 U	NA	50 U	50 U	50 U	50 U	NA	50 U
Cobalt (Dissolved)	ug/L	NA	50 U	NA	50 U	50 U	50 U	50 U	NA	50 U
Copper (Dissolved)	ug/L	NA	25 U	NA	25 U	25 U	25 U	25 U	NA	25 U
Cyanide (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron (Dissolved)	ug/L	789 U	5,740	7,850	7,060	6,370	3,020	33,200	37,400	21,800
Lead (Dissolved)	ug/L	NA	3 U	NA	3 U	3 U	3 U	3 U	NA	3 U
Magnesium (Dissolved)	ug/L	NA	19,600	NA	36,300	66,900	39,200	50,400	NA	220,000
Manganese (Dissolved)	ug/L	315	1,540	1,970	347	351	47	762	830	968
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Center Street Area MW-106S2 23 - 25.5 06/07/96	Center Street Area MW-106WT 8 - 13 07/12/95	Center Street Area MW-106WT 8 - 13 06/07/96	Center Street Area MW-136S1 37 - 42 07/20/95	Center Street Area MW-136S2 44 - 49 07/20/95	Center Street Area MW-136WT 13 - 23 07/20/95	Center Street Area MW-140S1 28.5 - 33.5 07/20/95	Center Street Area MW-140S1 28.5 - 33.5 06/05/96	Center Street Area MW-140S2 45.5 - 50.5 07/20/95
Inorganics-Dissolved (Cont'd.)										
Mercury (Dissolved)	ug/L	NA	0.2 U	NA	0.2 UJ	0.2 UJ	0.2 UJ	0.2 UJ	NA	0.2 UJ
Nickel (Dissolved)	ug/L	NA	50 U	NA	50 U	50 U	50 U	50 U	NA	50 U
Potassium (Dissolved)	ug/L	NA	6,120	NA	5,000 U	5,440	49,000	5,000 U	NA	17,200
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	5 U	NA	5 U	5 U	5 U	5 U	NA	5 U
Silver (Dissolved)	ug/L	NA	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 UJ	NA	0.5 U
Sodium (Dissolved)	ug/L	162,000	44,100	54,300	152,000	380,000	296,000	143,000	138,000	3,190,000
Thallium (Dissolved)	ug/L	NA	2 UJ	NA	2 UJ	2 UJ	2 UJ	2 UJ	NA	8 UJ*
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	20 U	NA	20 U	20 U	20 U	20 U	NA	20 U
Zinc (Dissolved)	ug/L	20 U	20 U	55	32	20 U	20 U	40	20 U	20 U
Miscellaneous										
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Center Street Area MW-106S2 23 - 25.5 06/07/96	Center Street Area MW-106WT 8 - 13 07/12/95	Center Street Area MW-106WT 8 - 13 06/07/96	Center Street Area MW-136S1 37 - 42 07/20/95	Center Street Area MW-136S2 44 - 49 07/20/95	Center Street Area MW-136WT 13 - 23 07/20/95	Center Street Area MW-140S1 28.5 - 33.5 07/20/95	Center Street Area MW-140S1 28.5 - 33.5 06/05/96	Center Street Area MW-140S2 45.5 - 50.5 07/20/95
Gases										
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Center Street Area MW-140S2 45.5 - 50.5 06/05/96	Center Street Area MW-140WT 11 - 21 07/20/95	Center Street Area MW-140WT 11 - 21 06/05/96	Center Street Area MW-141WT 4 - 14 07/28/95	Center Street Area MW-145WT 7 - 17 07/28/95	Center Street Area MW-145WT 7 - 17 06/04/96	Center Street Area MW-146WT 7 - 17 07/28/95	Center Street Area TW-201WT 02/06/95	Center Street Area TW-203S1 05/23/95
Inorganics										
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	5.00 U	NA	5.00 U	5.00 U	NA	11.0	6.00	5.00 UJ
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved										
Aluminum (Dissolved)	ug/L	NA	116	NA	NA	100	100 U	100 U	100 U	143
Antimony (Dissolved)	ug/L	NA	5 U	NA	5 U	5 U	NA	5 U	5 U	5 U
Arsenic (Dissolved)	ug/L	NA	19.3	NA	9	3.4	NA	6.9	1 UJ	1 U
Barium (Dissolved)	ug/L	NA	236	NA	200 U	999	865	587	200 U	533
Beryllium (Dissolved)	ug/L	NA	5 U	NA	5 U	5 U	NA	5 U	5 U	5 U
Cadmium (Dissolved)	ug/L	NA	0.2 UJ	NA	0.2 UJ	0.2 UJ	NA	0.2 UJ	0.2 U	R
Calcium (Dissolved)	ug/L	NA	330,000	NA	NA	14,600	NA	46,700	141,000	555,000
Chromium Total (Dissolved)	ug/L	NA	50 U	NA	50 U	50 U	NA	50 U	50 UJ	50 UJ
Cobalt (Dissolved)	ug/L	NA	50 U	NA	50 U	50 U	NA	50 U	50 U	50 U
Copper (Dissolved)	ug/L	NA	25 U	NA	25 U	25 U	NA	25 U	25 U	25 U
Cyanide (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron (Dissolved)	ug/L	20,400	29,300	20,700	NA	642	468 J	2,140	100 U	16,500
Lead (Dissolved)	ug/L	NA	3 U	NA	3 U	3 U	NA	3 U	3 U	3 U
Magnesium (Dissolved)	ug/L	NA	92,500	NA	NA	46,900	NA	68,000	102,000	202,000
Manganese (Dissolved)	ug/L	1,030	1,890	2,130	NA	67	68.1	81	265	1,120
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Center Street Area MW-140S2 45.5 - 50.5 06/05/96	Center Street Area MW-140WT 11 - 21 07/20/95	Center Street Area MW-140WT 11 - 21 06/05/96	Center Street Area MW-141WT 4 - 14 07/28/95	Center Street Area MW-145WT 7 - 17 07/28/95	Center Street Area MW-145WT 7 - 17 06/04/96	Center Street Area MW-146WT 7 - 17 07/28/95	Center Street Area TW-201WT 02/06/95	Center Street Area TW-203S1 05/23/95
Inorganics-Dissolved (Cont'd.)										
Mercury (Dissolved)	ug/L	NA	0.2 UJ	NA	0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U
Nickel (Dissolved)	ug/L	NA	50 U	NA	50 U	50 U	NA	50 U	50 U	50 U
Potassium (Dissolved)	ug/L	NA	8,900	NA	NA	53,800	NA	51,400	5,000 U	23,600
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	5 U	NA	5 U	5 U	NA	5 U	5 U	5 U
Silver (Dissolved)	ug/L	NA	0.5 UJ	NA	0.5 U	0.5 U	NA	0.5 U	0.5 U	0.5 U
Sodium (Dissolved)	ug/L	3,350,000	281,000	384,000	NA	272,000	317,000	306,000	76,100	2,560,000
Thallium (Dissolved)	ug/L	NA	2 UJ	NA	8 UJ*	2 UJ	NA	2 UJ	2 UJ	20 UJ
Tin (Dissolved)	ug/L	NA	NA	NA	100 U	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	20 U	NA	21	20 U	NA	20 U	20 U	20 U
Zinc (Dissolved)	ug/L	20 U	35	20 U	20 U	48	20 U	20 U	20 U	56.1
Miscellaneous										
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	ug/L	NA	NA	NA	500 U	NA	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Center Street Area MW-140S2 45.5 - 50.5 06/05/96	Center Street Area MW-140WT 11 - 21 07/20/95	Center Street Area MW-140WT 11 - 21 06/05/96	Center Street Area MW-141WT 4 - 14 07/28/95	Center Street Area MW-145WT 7 - 17 07/28/95	Center Street Area MW-145WT 7 - 17 06/04/96	Center Street Area MW-146WT 7 - 17 07/28/95	Center Street Area TW-201WT 02/06/95	Center Street Area TW-203S1 05/23/95
Gases										
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Center Street Area TW-203S2 05/24/95	Center Street Area TW-203WT 02/03/95	Center Street Area TW-205S1 38 - 42 02/07/95	Center Street Area TW-205S2 46 - 50 02/07/95	Center Street Area TW-205WT 10 - 14 02/06/95	Central Type III Landfill B-3BAUG 22.2 - 27.2 07/25/95	Central Type III Landfill B-3BAUG 22.2 - 27.2 05/18/00	Central Type III Landfill B-3R 16 - 26 07/26/95
Inorganics									
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	5.00 UJ	5.00 UJ	5.00 U	5.00 U	5.00 U	7.90	NA	5.00 U
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved									
Aluminum (Dissolved)	ug/L	745	100 U	100 U	208	144	100 U	NA	100 U
Antimony (Dissolved)	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 U
Arsenic (Dissolved)	ug/L	15.1	1.4 J	4.7	1.7	4.9 J	3	NA	2.9
Barium (Dissolved)	ug/L	932	2,430	450	905	200 U	216	NA	200 U
Beryllium (Dissolved)	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 U
Cadmium (Dissolved)	ug/L	R	0.2 U	0.2 U	0.5	0.2 U	0.2 UJ	NA	0.2 UJ
Calcium (Dissolved)	ug/L	2,230,000	68,700	238,000	722,000	214,000	173,000	NA	62,000
Chromium Total (Dissolved)	ug/L	50 UJ	50 UJ	50 UJ	50 UJ	50 UJ	50 U	NA	50 U
Cobalt (Dissolved)	ug/L	50 U	50 U	50 U	50 U	50 U	50 U	NA	50 U
Copper (Dissolved)	ug/L	25 U	25 U	25 U	25 U	25 U	25 U	NA	25 U
Cyanide (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Iron (Dissolved)	ug/L	49,200	7,030	27,000	17,300	5,320	10,600	300	13,700
Lead (Dissolved)	ug/L	3 U	3 U	3 U	3 U	3 U	3 U	NA	3 U
Magnesium (Dissolved)	ug/L	708,000	78,700	70,300	220,000	64,400	45,200	NA	25,400
Manganese (Dissolved)	ug/L	1,410	126	576	1,080	832	443	10 U	1,250
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Center Street Area TW-203S2 05/24/95	Center Street Area TW-203WT 02/03/95	Center Street Area TW-205S1 38 - 42 02/07/95	Center Street Area TW-205S2 46 - 50 02/07/95	Center Street Area TW-205WT 10 - 14 02/06/95	Central Type III Landfill B-3BAUG 22.2 - 27.2 07/25/95	Central Type III Landfill B-3BAUG 22.2 - 27.2 05/18/00	Central Type III Landfill B-3R 16 - 26 07/26/95
Inorganics-Dissolved (Cont'd.)									
Mercury (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U
Nickel (Dissolved)	ug/L	50 U	50 U	50 U	50 U	120	50 U	NA	50 U
Potassium (Dissolved)	ug/L	62,100	56,200	6,390	22,300	5,000 U	5,000 U	NA	28,700
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 U
Silver (Dissolved)	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
Sodium (Dissolved)	ug/L	11,200,000	53,500	535,000	3,310,000	111,000	306,000	NA	299,000
Thallium (Dissolved)	ug/L	40 UJ	2 UJ	4 UJ	8 UJ	2 UJ	2 UJ	NA	2 UJ
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	20 U	20 U	20 U	20 U	20 U	20 U	NA	20 U
Zinc (Dissolved)	ug/L	524	645	1,680	4,260	1,160	20 U	NA	20 U
Miscellaneous									
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	18,000 J	NA	29,000
Bromide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	1,000 U	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	1,300	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	50	NA
Nitrate (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	50 U	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	NA	NA	NA	NA	NA	NA	140,000	NA
Sulfide	ug/L	NA	NA	NA	NA	NA	NA	2,000 U	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA	2,300	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Center Street Area TW-203S2 05/24/95	Center Street Area TW-203WT 02/03/95	Center Street Area TW-205S1 38 - 42 02/07/95	Center Street Area TW-205S2 46 - 50 02/07/95	Center Street Area TW-205WT 10 - 14 02/06/95	Central Type III Landfill B-3BAUG 22.2 - 27.2 07/25/95	Central Type III Landfill B-3BAUG 22.2 - 27.2 05/18/00	Central Type III Landfill B-3R 16 - 26 07/26/95
Gases									
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA	145,800	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA	400 U	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA	390	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA	18,900	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	5,860	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Central Type III Landfill MW-143WT 6 - 16 07/25/95	Central Type III Landfill X-2A 8.6 - 11.6 07/15/95	Central Type III Landfill X-2A 8.6 - 11.6 06/12/96	Central Type III Landfill X-2A 8.6 - 11.6 05/19/00	Central Type III Landfill X-2A 8.6 - 11.6 06/18/01	Central Type III Landfill X-2A 8.6 - 11.6 06/26/02	Central Type III Landfill X-2A 8.6 - 11.6 06/17/03	Central Type III Landfill X-2A 8.6 - 11.6 06/18/03
Inorganics									
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	5.00 U	5.00 U	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	0.200 UJ	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved									
Aluminum (Dissolved)	ug/L	100 U	111	NA	100 U	100 U	100 U	NA	100 U
Antimony (Dissolved)	ug/L	5 U	5 U	NA	5 U	5 U	5 U	NA	5 U
Arsenic (Dissolved)	ug/L	1 UJ	1 U	NA	3.4 B	10 U	2.2 B	NA	10 U
Barium (Dissolved)	ug/L	200 U	365	NA	410	432	358	NA	376
Beryllium (Dissolved)	ug/L	5 U	5 U	NA	4 U	4 U	4 U	NA	4 U
Cadmium (Dissolved)	ug/L	0.2 UJ	0.2 U	NA	1 U	1 U	1 U	NA	1 U
Calcium (Dissolved)	ug/L	55,600	76,400	NA	98,200	103,000	83,800	NA	92,800
Chromium Total (Dissolved)	ug/L	50 U	50 U	NA	5 U	5 U	5 U	NA	5 U
Cobalt (Dissolved)	ug/L	50 U	50 U	NA	40 U	1.3 B	0.83 B	NA	40 U
Copper (Dissolved)	ug/L	25 U	25 U	NA	25 U	25 U	25 U	NA	25 U
Cyanide (Dissolved)	ug/L	NA	NA	NA	5 U	5 U	3 B	2 B	NA
Iron (Dissolved)	ug/L	657	254 J	NA	429	606	577	NA	100 U
Lead (Dissolved)	ug/L	3 U	3 U	NA	3 U	3 U	3 U	NA	3 U
Magnesium (Dissolved)	ug/L	26,400	23,300	NA	40,400	43,500	34,600	NA	33,600
Manganese (Dissolved)	ug/L	310	517	NA	569	625	518	NA	579
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Central Type III Landfill MW-143WT 6 - 16 07/25/95	Central Type III Landfill X-2A 8.6 - 11.6 07/15/95	Central Type III Landfill X-2A 8.6 - 11.6 06/12/96	Central Type III Landfill X-2A 8.6 - 11.6 05/19/00	Central Type III Landfill X-2A 8.6 - 11.6 06/18/01	Central Type III Landfill X-2A 8.6 - 11.6 06/26/02	Central Type III Landfill X-2A 8.6 - 11.6 06/17/03	Central Type III Landfill X-2A 8.6 - 11.6 06/18/03
Inorganics-Dissolved (Cont'd.)									
Mercury (Dissolved)	ug/L	0.2 U	0.2 U	NA	0.2 U	NA	0.2 UJ	NA	0.2 U
Nickel (Dissolved)	ug/L	50 U	50 U	NA	13.4 B	10.8 B	9.4 B	NA	6.9 B
Potassium (Dissolved)	ug/L	27,200	19,900	NA	33,500	35,500 J	33,300 J	NA	39,200
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 U	5 U	NA	5 U	5 U	5 U	NA	5 U
Silver (Dissolved)	ug/L	0.5 U	0.5 U	NA	5 U	5 U	5 U	NA	5 U
Sodium (Dissolved)	ug/L	275,000	275,000	NA	378,000	429,000	426,000	NA	411,000
Thallium (Dissolved)	ug/L	2 UJ	2 UJ	NA	5.3 B	5.9 B	10 UJ	NA	10 U
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	20 U	20 U	NA	50 U	50 U	50 U	NA	50 U
Zinc (Dissolved)	ug/L	20 U	R	NA	54.6	12.7 B	20 U	NA	74
Miscellaneous									
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	160,000 J	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	NA	5,600	6,600	7,800	9,400	NA
Biochemical Oxygen Demand (BOD)	ug/L	26,000 J	NA	11,000	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	884,000 J	982,000	1,060,000	NA	913,000
Estimated Un-ionized Ammonia	ug/L	NA	NA	NA	403.2	475.2	561.6	676.8	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	NA	NA	2,500 UG	500 U	500 U	NA	500 U
Nitrite (as N)	ug/L	NA	NA	NA	2,500 UG	R	500 U	NA	500 U
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	7.6	7.8	8 [8.1]	NA	8
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	NA	NA	NA	24,000	1,000 U	420 B	NA	320 BJ
Sulfide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	NA	1,800,000	1,900,000	2,000,000 [2,000,000]	NA	1,800,000
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	8,000 U	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Central Type III Landfill MW-143WT 6 - 16 07/25/95	Central Type III Landfill X-2A 8.6 - 11.6 07/15/95	Central Type III Landfill X-2A 8.6 - 11.6 06/12/96	Central Type III Landfill X-2A 8.6 - 11.6 05/19/00	Central Type III Landfill X-2A 8.6 - 11.6 06/18/01	Central Type III Landfill X-2A 8.6 - 11.6 06/26/02	Central Type III Landfill X-2A 8.6 - 11.6 06/17/03	Central Type III Landfill X-2A 8.6 - 11.6 06/18/03
Gases									
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	Central Type III Landfill X-2A 8.6 - 11.6 05/25/04	Central Type III Landfill X-2A 8.6 - 11.6 06/22/05	Central Type III Landfill X-2A 8.6 - 11.6 12/12/06	Central Type III Landfill X-2A 8.6 - 11.6 12/04/07	Central Type III Landfill X-2A 8.6 - 11.6 03/10/08	Central Type III Landfill X-2B 22.1 - 25.1 07/15/95	Central Type III Landfill X-2B 22.1 - 25.1 12/12/06	Central Type III Landfill X-2B 22.1 - 25.1 12/04/07
Inorganics									
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	NA	NA	NA	NA	5.00 U	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved									
Aluminum (Dissolved)	ug/L	100 U	200 U	200 U	200 U	200 U	100 U	200 U	200 U
Antimony (Dissolved)	ug/L	5 U	2 U	2 U	2 U	2 U	5 U	2 U	2 U
Arsenic (Dissolved)	ug/L	2.7 B	8	5 U	5 U	5 U	1.9	5 U	3.7 J
Barium (Dissolved)	ug/L	336	220 J	236	201	254	200 U	238	287
Beryllium (Dissolved)	ug/L	4 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U
Cadmium (Dissolved)	ug/L	1 U	0.5 U	1 U	1 U	1 U	0.2 U	1 U	1 U
Calcium (Dissolved)	ug/L	84,900	220,000 J	51,300	50,200	61,000	94,100	150,000	208,000
Chromium Total (Dissolved)	ug/L	5 U	2 U	5 U	5 U	5 U	50 U	5 U	5 U
Cobalt (Dissolved)	ug/L	2.7 B	0.52 B	2.7 J	7 U	7 U	50 U	3.5 J	7 U
Copper (Dissolved)	ug/L	25 U	2 U	2 U	2 U	2 U	25 U	2 U	2 U
Cyanide (Dissolved)	ug/L	5 U	10 U	10 U	10 U	10 U	NA	10 U	10 U
Iron (Dissolved)	ug/L	555	12,200	296	207	434	5,840 J	10,900	15,400
Lead (Dissolved)	ug/L	3 U	1 U	3 U	3 U	3 U	3 U	3 U	3 U
Magnesium (Dissolved)	ug/L	27,100	52,700	13,700	13,100	17,600	23,400	36,800	54,000
Manganese (Dissolved)	ug/L	480	991	289	249	347	322	538	604
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Central Type III Landfill X-2A 8.6 - 11.6 05/25/04	Central Type III Landfill X-2A 8.6 - 11.6 06/22/05	Central Type III Landfill X-2A 8.6 - 11.6 12/12/06	Central Type III Landfill X-2A 8.6 - 11.6 12/04/07	Central Type III Landfill X-2A 8.6 - 11.6 03/10/08	Central Type III Landfill X-2B 22.1 - 25.1 07/15/95	Central Type III Landfill X-2B 22.1 - 25.1 12/12/06	Central Type III Landfill X-2B 22.1 - 25.1 12/04/07
Inorganics-Dissolved (Cont'd.)									
Mercury (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Nickel (Dissolved)	ug/L	8.3 B	5.3	20 U	6 J	5.5 J	50 U	20 U	20 U
Potassium (Dissolved)	ug/L	35,400	2,090 B	28,600	31,000 J	28,600 J	5,000 U	1,300	1,390 J
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 U	16.3	5 U	5 U	5 U	5 U	5 U	5 U
Silver (Dissolved)	ug/L	5 U	0.5 U	R	0.2 U	0.2 U	0.5 U	R	0.2 U
Sodium (Dissolved)	ug/L	366,000	131,000	274,000	277,000	328,000	183,000	325,000	381,000
Thallium (Dissolved)	ug/L	10 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	50 U	5 U	4 U	4 U	4 U	20 U	4 U	4 U
Zinc (Dissolved)	ug/L	20 U	9.1 BJ	12.4 J	20 U	20 U	R	69.8	71.2
Miscellaneous									
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	9,300	500	9,000	7,700	400	NA	400	200 U
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	ug/L	815,000	412,000	500,000	450,000	660,000	NA	429,000	720,000
Estimated Un-ionized Ammonia	ug/L	669.6	36	648	554.4	28.8	NA	28.8	14.4 U
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	500 U	100 U	100 U	100 U	100 U	NA	100 U	100 U
Nitrite (as N)	ug/L	500 U	100 U	230	100 U	100 U	NA	210	100 U
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	8.2	6.9	8.2 J	8.5	8.1	NA	7.2 J	7.1
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	1,000 U	140 B	210 J	1,000 U	1,000 U	NA	1,000 U	1,000 U
Sulfide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	1,700,000	1,300,000	1,000,000	970,000	1,200,000	NA	1,600,000	1,700,000 J
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Central Type III Landfill X-2A 8.6 - 11.6 05/25/04	Central Type III Landfill X-2A 8.6 - 11.6 06/22/05	Central Type III Landfill X-2A 8.6 - 11.6 12/12/06	Central Type III Landfill X-2A 8.6 - 11.6 12/04/07	Central Type III Landfill X-2A 8.6 - 11.6 03/10/08	Central Type III Landfill X-2B 22.1 - 25.1 07/15/95	Central Type III Landfill X-2B 22.1 - 25.1 12/12/06	Central Type III Landfill X-2B 22.1 - 25.1 12/04/07
Gases									
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Central Type III Landfill X-2B 22.1 - 25.1 03/10/08	Central Type III Landfill X-2C 43.1 - 46.1 07/15/95	Central Type III Landfill X-2C 43.1 - 46.1 12/12/06	Central Type III Landfill X-2C 43.1 - 46.1 12/04/07	Central Type III Landfill X-2C 43.1 - 46.1 03/10/08	Central Type III Landfill X-2DAUG 32 - 37 07/15/95	Central Type III Landfill X-2DAUG 32 - 37 12/13/06	Central Type III Landfill X-2DAUG 32 - 37 12/05/07
Inorganics									
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	5.00 U	NA	NA	NA	5.00 U	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved									
Aluminum (Dissolved)	ug/L	200 U	100 U	200 U	200 U	200 U [200 U]	100 U	200 U	200 U
Antimony (Dissolved)	ug/L	2 U	5 U	2 U	2 U	2 U [2 U]	5 U	2 U	2 U
Arsenic (Dissolved)	ug/L	5.4	12.5	13.8	15.8	19.8 [19]	1.4	5 U	5.1
Barium (Dissolved)	ug/L	294	227	284	272	308 [309]	230	313	226
Beryllium (Dissolved)	ug/L	1 U	5 U	1 U	1 U	1 U [1 U]	5 U	1 U	1 U
Cadmium (Dissolved)	ug/L	1 U	0.2 U	1 U	1 U	1 U [1 U]	0.3	1 U	1 U
Calcium (Dissolved)	ug/L	211,000	208,000	172,000	196,000	195,000 [193,000]	190,000	240,000	201,000
Chromium Total (Dissolved)	ug/L	5 U	50 U	5 U	5 U	5 U [5 U]	50 U	5 U	5 U
Cobalt (Dissolved)	ug/L	7 U	50 U	1.4 J	7 U	7 U [7 U]	50 U	1.3 J	7 U
Copper (Dissolved)	ug/L	2 U	25 U	2 U	2 U	2 U [2 U]	25 U	0.52 J	0.74 J
Cyanide (Dissolved)	ug/L	10 U	NA	10 U	10 U	10 U [10 U]	NA	10 U	10 U
Iron (Dissolved)	ug/L	15,100	15,700 J	18,200	19,900	20,700 [21,000]	10,900 J	14,800	12,400
Lead (Dissolved)	ug/L	3 U	3 U	3 U	3 U	3 U [3 U]	3 U	3 U	3 U
Magnesium (Dissolved)	ug/L	53,100	51,200	44,700	51,900	50,900 [50,300]	47,500	57,000	49,400
Manganese (Dissolved)	ug/L	626	891	814	848	840 [830]	767	1,340	1,060
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Central Type III Landfill X-2B 22.1 - 25.1 03/10/08	Central Type III Landfill X-2C 43.1 - 46.1 07/15/95	Central Type III Landfill X-2C 43.1 - 46.1 12/12/06	Central Type III Landfill X-2C 43.1 - 46.1 12/04/07	Central Type III Landfill X-2C 43.1 - 46.1 03/10/08	Central Type III Landfill X-2DAUG 32 - 37 07/15/95	Central Type III Landfill X-2DAUG 32 - 37 12/13/06	Central Type III Landfill X-2DAUG 32 - 37 12/05/07
Inorganics-Dissolved (Cont'd.)									
Mercury (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U
Nickel (Dissolved)	ug/L	20 U	50 U	20 U	20 U	20 U [20 U]	50 U	20 U	20 U
Potassium (Dissolved)	ug/L	1,310 J	5,000 U	2,530	2,670 J	2,480 J [2,540 J]	7,040	2,150	1,800
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U
Silver (Dissolved)	ug/L	0.2 U	0.5 U	R	0.2 U	0.2 U [0.2 U]	0.5 U	R	0.2 U
Sodium (Dissolved)	ug/L	340,000	218,000	244,000	259,000	225,000 [222,000]	230,000	159,000	128,000
Thallium (Dissolved)	ug/L	1 U	2 UJ	1 U	1 U	1 U [1 U]	2 UJ	1 U	1 U
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	4 U	20 U	4 U	4 U	0.68 J [4 U]	20 U	4 U	4 U
Zinc (Dissolved)	ug/L	76.9	R	20 U	20 U	20 U [20 U]	20 U	20 U	20 U
Miscellaneous									
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	400	NA	2,700	1,200	2,500 [2,600]	NA	600	200 U
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	ug/L	734,000	NA	352,000	347,000	358,000 [359,000]	NA	555,000	434,000
Estimated Un-ionized Ammonia	ug/L	28.8	NA	194.4	86.4	180 [187.2]	NA	43.2	14.4 U
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	100 U	NA	100 U	100 U	100 U [100 U]	NA	100 U	100 U
Nitrite (as N)	ug/L	100 U	NA	170	100 U	100 U [100 U]	NA	100 U	100 U
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	7.1	NA	7 J	7.2	7 [7.1]	NA	7 J	7
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	1,000 U	NA	1,000 U	1,000 U	1,800 [900 J]	NA	1,000 U	1,000 U
Sulfide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	1,800,000	NA	1,400,000	1,200,000	1,200,000 [1,200,000]	NA	1,700,000	1,200,000 J
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Central Type III Landfill X-2B 22.1 - 25.1 03/10/08	Central Type III Landfill X-2C 43.1 - 46.1 07/15/95	Central Type III Landfill X-2C 43.1 - 46.1 12/12/06	Central Type III Landfill X-2C 43.1 - 46.1 12/04/07	Central Type III Landfill X-2C 43.1 - 46.1 03/10/08	Central Type III Landfill X-2DAUG 32 - 37 07/15/95	Central Type III Landfill X-2DAUG 32 - 37 12/13/06	Central Type III Landfill X-2DAUG 32 - 37 12/05/07
Gases									
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Central Type III Landfill X-2DAUG 32 - 37 03/10/08	Drum Remediation/Wetland Area MW-123S1 15 - 20 07/18/95	Drum Remediation/Wetland Area MW-123WT 3 - 8 07/18/95	Drum Remediation/Wetland Area MW-124S1 11.5 - 16.5 07/19/95	Drum Remediation/Wetland Area MW-124S1 11.5 - 16.5 06/03/96
Inorganics						
Aluminum	ug/L	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	5.00 U	5.00 U	5.00 U	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA
Inorganics-Dissolved						
Aluminum (Dissolved)	ug/L	200 U	100 U	100 U	100 U	100 U
Antimony (Dissolved)	ug/L	2 U	5 U	5 U	5 U	5 U
Arsenic (Dissolved)	ug/L	3.4 J	5.6	5.8	3.6	5 U
Barium (Dissolved)	ug/L	223	200 U	200 U	200 U	200 U
Beryllium (Dissolved)	ug/L	1 U	5 U	5 U	5 U	5 U
Cadmium (Dissolved)	ug/L	1 U	0.2 U	0.2 U	0.2 U	0.5 U
Calcium (Dissolved)	ug/L	192,000	142,000	187,000	104,000	88,600
Chromium Total (Dissolved)	ug/L	5 U	50 U	50 U	50 U	50 U
Cobalt (Dissolved)	ug/L	7 U	50 U	50 U	50 U	50 U
Copper (Dissolved)	ug/L	2 U	25 U	25 U	25 U	25 U
Cyanide (Dissolved)	ug/L	10 U	NA	NA	NA	5 U
Iron (Dissolved)	ug/L	12,000	7,340	9,880	1,770	1,340 J
Lead (Dissolved)	ug/L	3 U	3 U	3 U	3 U	3 U
Magnesium (Dissolved)	ug/L	46,600	42,500	41,300	32,900	31,800
Manganese (Dissolved)	ug/L	1,010	361	361	330	241
Mercury	ug/L	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Central Type III Landfill X-2DAUG 32 - 37 03/10/08	Drum Remediation/Wetland Area MW-123S1 15 - 20 07/18/95	Drum Remediation/Wetland Area MW-123WT 3 - 8 07/18/95	Drum Remediation/Wetland Area MW-124S1 11.5 - 16.5 07/19/95	Drum Remediation/Wetland Area MW-124S1 11.5 - 16.5 06/03/96
Inorganics-Dissolved (Cont'd.)						
Mercury (Dissolved)	ug/L	0.15 J	0.2 U	0.2 U	0.2 U	0.2 U
Nickel (Dissolved)	ug/L	20 U	50 U	50 U	50 U	50 U
Potassium (Dissolved)	ug/L	1,770 J	5,000 U	5,000 U	5,000 U	5,000 U
Selenium	ug/L	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 U	5 U	5 U	5 U	5 U
Silver (Dissolved)	ug/L	0.2 U	0.5 U	0.5 U	0.5 U	0.5 UJ
Sodium (Dissolved)	ug/L	127,000	36,000	25,200	27,400	30,200
Thallium (Dissolved)	ug/L	1 U	2 UJ	2 UJ	2 UJ	2 UJ
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	4 U	20 U	20 U	20 U	20 U
Zinc (Dissolved)	ug/L	20 U	R	R	R	20 U
Miscellaneous						
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	500	NA	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA
Chloride	ug/L	353,000	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	36	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	100 U	NA	NA	NA	NA
Nitrite (as N)	ug/L	100 U	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA
pH	S.U.	7.1	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA
Sulfate	ug/L	300 J	NA	NA	NA	NA
Sulfide	ug/L	NA	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	1,100,000	NA	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA

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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Central Type III Landfill X-2DAUG 32 - 37 03/10/08	Drum Remediation/Wetland Area MW-123S1 15 - 20 07/18/95	Drum Remediation/Wetland Area MW-123WT 3 - 8 07/18/95	Drum Remediation/Wetland Area MW-124S1 11.5 - 16.5 07/19/95	Drum Remediation/Wetland Area MW-124S1 11.5 - 16.5 06/03/96
Gases						
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Drum Remediation/Wetland Area MW-124WT 2 - 7 07/19/95	Drum Remediation/Wetland Area MW-124WT 2 - 7 06/03/96	Drum Remediation/Wetland Area MW-126WT 3 - 13 07/30/95	Drum Remediation/Wetland Area MW-126WT 3 - 13 06/06/96	Drum Remediation/Wetland Area MW-127S1 16.5 - 21.5 07/26/95
Inorganics						
Aluminum	ug/L	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	5.00 U	NA	5.00 U	NA	5.00 U
Ferrous Iron	ug/L	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	426	NA
Lead	ug/L	NA	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	630	NA
Mercury	ug/L	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA
Inorganics-Dissolved						
Aluminum (Dissolved)	ug/L	100 U	100 U	NA	100 U	100 U
Antimony (Dissolved)	ug/L	5 U	5 U	5 U	5 U	5 U
Arsenic (Dissolved)	ug/L	1 U	5 U	5.3	5 U	15.5
Barium (Dissolved)	ug/L	200 U	200 U	200 U	200 U	200 U
Beryllium (Dissolved)	ug/L	5 U	5 U	5 U	5 U	5 U
Cadmium (Dissolved)	ug/L	0.4	0.5 U	0.2 UJ	0.5 U	0.2 UJ
Calcium (Dissolved)	ug/L	124,000	114,000	NA	174,000	148,000
Chromium Total (Dissolved)	ug/L	50 U	50 U	50 U	50 U	50 U
Cobalt (Dissolved)	ug/L	50 U	50 U	50 U	50 U	50 U
Copper (Dissolved)	ug/L	25 U	25 U	25 U	25 U	25 U
Cyanide (Dissolved)	ug/L	NA	5 U	NA	5 UJ	NA
Iron (Dissolved)	ug/L	100 U	100 J	NA	206	9,690
Lead (Dissolved)	ug/L	5.9	3 U	3 U	3 U	3 U
Magnesium (Dissolved)	ug/L	22,300	19,800	NA	55,400	44,700
Manganese (Dissolved)	ug/L	438	56.9	NA	737	232
Mercury	ug/L	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Drum Remediation/Wetland Area MW-124WT 2 - 7 07/19/95	Drum Remediation/Wetland Area MW-124WT 2 - 7 06/03/96	Drum Remediation/Wetland Area MW-126WT 3 - 13 07/30/95	Drum Remediation/Wetland Area MW-126WT 3 - 13 06/06/96	Drum Remediation/Wetland Area MW-127S1 16.5 - 21.5 07/26/95
Inorganics-Dissolved (Cont'd.)						
Mercury (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Nickel (Dissolved)	ug/L	50 U	50 U	50 U	50 U	50 U
Potassium (Dissolved)	ug/L	5,000 U	5,000 U	NA	5,000 U	5,000 U
Selenium	ug/L	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 U	5 U	5 U	5 U	5 U
Silver (Dissolved)	ug/L	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U
Sodium (Dissolved)	ug/L	5,000 U	5,000 U	NA	55,400	64,800
Thallium (Dissolved)	ug/L	2 UJ	2 UJ	2 UJ	2 UJ	2 UJ
Tin (Dissolved)	ug/L	NA	NA	100 U	NA	NA
Vanadium (Dissolved)	ug/L	20 U	20 U	20 U	20 U	20 U
Zinc (Dissolved)	ug/L	R	20 U	20 U	20 U	20 U
Miscellaneous						
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	30	NA
Hardness	ug/L	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	NA	NA	80 U	NA
Nitrite (as N)	ug/L	NA	NA	NA	70 U	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA
Sulfate	ug/L	NA	NA	NA	90,100	NA
Sulfide	ug/L	NA	NA	500 U	200 U	NA
Surfactants	ug/L	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	13,900	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Drum Remediation/Wetland Area MW-124WT 2 - 7 07/19/95	Drum Remediation/Wetland Area MW-124WT 2 - 7 06/03/96	Drum Remediation/Wetland Area MW-126WT 3 - 13 07/30/95	Drum Remediation/Wetland Area MW-126WT 3 - 13 06/06/96	Drum Remediation/Wetland Area MW-127S1 16.5 - 21.5 07/26/95
Gases						
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	120,600	NA
Carbon monoxide	ug/L	NA	NA	NA	400 U	NA
Dissolved Oxygen	ug/L	NA	NA	NA	6,600	NA
Ethane	ug/L	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	200 U	NA
Nitrogen	ug/L	NA	NA	NA	30,300	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Drum Remediation/Wetland Area MW-127WT 2 - 12 07/26/95	Drum Remediation/Wetland Area TW-223S1 02/01/95	Drum Remediation/Wetland Area TW-223S2 02/01/95	Drum Remediation/Wetland Area TW-223WT 02/01/95	Drum Remediation/Wetland Area TW-224S1 02/02/95
Inorganics						
Aluminum	ug/L	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	5.00 U	5.00 UJ	5.00 U	5.00 U	5.00 UJ
Ferrous Iron	ug/L	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA
Inorganics-Dissolved						
Aluminum (Dissolved)	ug/L	100 U	311	113	137	100 U
Antimony (Dissolved)	ug/L	5 U	5 U	5 U	5 U	5 U
Arsenic (Dissolved)	ug/L	11.4	3.6 J	6.4	10.6	5.5 J
Barium (Dissolved)	ug/L	200 U	200 U	200 U	200 U	200 U
Beryllium (Dissolved)	ug/L	5 U	5 U	5 U	5 U	5 U
Cadmium (Dissolved)	ug/L	0.2 UJ	0.2 U	0.2 U	0.2 U	0.2 U
Calcium (Dissolved)	ug/L	153,000	125,000	112,000	114,000	137,000
Chromium Total (Dissolved)	ug/L	50 U	50 UJ	50 U	50 U	50 UJ
Cobalt (Dissolved)	ug/L	50 U	50 U	50 U	50 U	50 U
Copper (Dissolved)	ug/L	25 U	25 U	25 U	25 U	25 U
Cyanide (Dissolved)	ug/L	NA	NA	NA	NA	NA
Iron (Dissolved)	ug/L	14,500	10,000	5,940	1,880	2,300
Lead (Dissolved)	ug/L	3 U	3 U	3 U	3 U	3 U
Magnesium (Dissolved)	ug/L	31,300	34,500	35,100 J	20,600 J	32,100
Manganese (Dissolved)	ug/L	327	592	216	671	327
Mercury	ug/L	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Drum Remediation/Wetland Area MW-127WT 2 - 12 07/26/95	Drum Remediation/Wetland Area TW-223S1 02/01/95	Drum Remediation/Wetland Area TW-223S2 02/01/95	Drum Remediation/Wetland Area TW-223WT 02/01/95	Drum Remediation/Wetland Area TW-224S1 02/02/95
Inorganics-Dissolved (Cont'd.)						
Mercury (Dissolved)	ug/L	0.2 U	0.2 U	0.2 UJ	0.2 UJ	0.2 U
Nickel (Dissolved)	ug/L	50 U	50 U	50 U	50 U	50 U
Potassium (Dissolved)	ug/L	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U
Selenium	ug/L	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 U	5 U	5 U	5 U	5 U
Silver (Dissolved)	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Sodium (Dissolved)	ug/L	19,700	93,600	106,000 J	13,600 J	18,600
Thallium (Dissolved)	ug/L	2 UJ	2 UJW	2 UJW	2 UJ	2 UJ
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	20 U	20 U	20 U	20 U	20 U
Zinc (Dissolved)	ug/L	20 U	320	711	402	1,300
Miscellaneous						
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	NA	NA	NA	NA
Nitrite (as N)	ug/L	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA
Sulfate	ug/L	NA	NA	NA	NA	NA
Sulfide	ug/L	NA	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Drum Remediation/Wetland Area MW-127WT 2 - 12 07/26/95	Drum Remediation/Wetland Area TW-223S1 02/01/95	Drum Remediation/Wetland Area TW-223S2 02/01/95	Drum Remediation/Wetland Area TW-223WT 02/01/95	Drum Remediation/Wetland Area TW-224S1 02/02/95
Gases						
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Drum Remediation/Wetland Area TW-224WT 02/02/95	Drum Remediation/Wetland Area TW-225S1 02/03/95	Drum Remediation/Wetland Area TW-225WT 02/02/95	Drum Remediation/Wetland Area TW-226S1 02/02/95	Drum Remediation/Wetland Area TWW-1 1.5 - 6.5 01/25/97
Inorganics						
Aluminum	ug/L	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	5.00 U	5.00 UJ	5.00 U	5.00 UJ	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA
Inorganics-Dissolved						
Aluminum (Dissolved)	ug/L	100 U	100 U	100 U	100 U	100 U
Antimony (Dissolved)	ug/L	5 U	5 U	5 U	5 U	5 U
Arsenic (Dissolved)	ug/L	6.7	1 UJ	1 U	1 UJ	5 U
Barium (Dissolved)	ug/L	200 U	200 U	200 U	200 U	200 UL
Beryllium (Dissolved)	ug/L	5 U	5 U	5 U	5 U	5 U
Cadmium (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.5 U
Calcium (Dissolved)	ug/L	141,000	162,000	147,000	85,900	318,000
Chromium Total (Dissolved)	ug/L	50 U	50 UJ	50 U	50 UJ	50 U
Cobalt (Dissolved)	ug/L	50 U	50 U	50 U	50 U	50 U
Copper (Dissolved)	ug/L	25 U	25 U	25 U	25 U	25 U
Cyanide (Dissolved)	ug/L	NA	NA	NA	NA	10 U
Iron (Dissolved)	ug/L	100 U	128	252	100 U	110
Lead (Dissolved)	ug/L	3 U	3 U	3 U	3 U	3 U
Magnesium (Dissolved)	ug/L	28,900 J	40,100	30,600 J	17,600	104,000
Manganese (Dissolved)	ug/L	478	540	819	174	2,110
Mercury	ug/L	NA	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Drum Remediation/Wetland Area TW-224WT 02/02/95	Drum Remediation/Wetland Area TW-225S1 02/03/95	Drum Remediation/Wetland Area TW-225WT 02/02/95	Drum Remediation/Wetland Area TW-226S1 02/02/95	Drum Remediation/Wetland Area TWW-1 1.5 - 6.5 01/25/97
Inorganics-Dissolved (Cont'd.)						
Mercury (Dissolved)	ug/L	0.2 UJ	0.2 U	0.2 UJ	0.2 U	0.2 U
Nickel (Dissolved)	ug/L	50 U	50 U	50 U	50 U	50 U
Potassium (Dissolved)	ug/L	5,000 U	5,000 U	5,000 U	5,000 U	5,000 UL
Selenium	ug/L	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 U	5 U	5 U	5 U	5 U
Silver (Dissolved)	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Sodium (Dissolved)	ug/L	31,200 J	43,600	51,100 J	5,000 U	858,000
Thallium (Dissolved)	ug/L	2 U	2 UJ	2 UJW	2 UJ	20 UG
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	20 U	20 U	20 U	20 U	20 U
Zinc (Dissolved)	ug/L	24	1,270	27	24	166
Miscellaneous						
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	NA	NA	NA	NA
Nitrite (as N)	ug/L	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA
Sulfate	ug/L	NA	NA	NA	NA	NA
Sulfide	ug/L	NA	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA

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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Drum Remediation/Wetland Area TW-224WT 02/02/95	Drum Remediation/Wetland Area TW-225S1 02/03/95	Drum Remediation/Wetland Area TW-225WT 02/02/95	Drum Remediation/Wetland Area TW-226S1 02/02/95	Drum Remediation/Wetland Area TWW-1 1.5 - 6.5 01/25/97
Gases						
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA

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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Drum Remediation/Wetland Area TWW-1 1.5 - 6.5 05/21/00	Drum Remediation/Wetland Area TWW-1 1.5 - 6.5 05/29/08	Drum Remediation/Wetland Area TWW-2 1.5 - 6.5 01/23/97	Drum Remediation/Wetland Area TWW-2 1.5 - 6.5 01/25/97	Drum Remediation/Wetland Area TWW-2 1.5 - 6.5 05/21/00
Inorganics						
Aluminum	ug/L	100 U	NA	NA	NA	100 U [100 U]
Antimony	ug/L	5.00 U	NA	NA	NA	5.00 U [5.00 U]
Arsenic	ug/L	10.0 U	NA	NA	NA	10.0 U [10.0 U]
Barium	ug/L	146	NA	NA	NA	230 [241]
Beryllium	ug/L	4.00 U	NA	NA	NA	4.00 U [4.00 U]
Cadmium	ug/L	1.00 U	NA	NA	NA	1.00 U [1.00 U]
Calcium	ug/L	249,000	NA	NA	NA	465,000 [487,000]
Chromium Total	ug/L	5.00 U	NA	NA	NA	5.00 U [5.00 U]
Cobalt	ug/L	10.0 U	NA	NA	NA	10.0 U [10.0 U]
Copper	ug/L	25.0 U	NA	NA	NA	25.0 U [25.0 U]
Cyanide (total)	ug/L	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA
Iron	ug/L	100 U	NA	NA	NA	6,720 [6,990]
Lead	ug/L	3.00 U	NA	NA	NA	3.00 U [3.00 U]
Magnesium	ug/L	84,400	NA	NA	NA	141,000 [148,000]
Manganese	ug/L	1,580	NA	NA	NA	688 [703]
Mercury	ug/L	0.200 U	NA	NA	NA	0.200 U [0.200 U]
Molybdenum	ug/L	NA	NA	NA	NA	NA
Nickel	ug/L	40.0 U	NA	NA	NA	40.0 U [40.0 U]
Potassium	ug/L	2,020 BJ	NA	NA	NA	2,950 BJ [2,960 BJ]
Selenium	ug/L	5.00 U	NA	NA	NA	5.00 U [5.00 U]
Silver	ug/L	5.00 U	NA	NA	NA	5.00 U [5.00 U]
Sodium	ug/L	839,000	NA	NA	NA	240,000 [237,000]
Thallium	ug/L	7.60 B	NA	NA	NA	9.40 B [7.60 B]
Tin	ug/L	NA	NA	NA	NA	NA
Vanadium	ug/L	20.0 U	NA	NA	NA	20.0 U [20.0 U]
Zinc	ug/L	20.0 U	NA	NA	NA	20.0 U [20.0 U]
Inorganics-Dissolved						
Aluminum (Dissolved)	ug/L	100 U	NA	100 U [100 U]	NA	100 U [100 U]
Antimony (Dissolved)	ug/L	2.1 B	NA	5 U [5 U]	NA	5 U [5 U]
Arsenic (Dissolved)	ug/L	10 U	NA	5 U [5 U]	NA	10 U [10 U]
Barium (Dissolved)	ug/L	145	NA	200 U [203]	NA	226 [222]
Beryllium (Dissolved)	ug/L	4 U	NA	5 U [5 U]	NA	4 U [4 U]
Cadmium (Dissolved)	ug/L	1 U	NA	0.5 U [0.58]	NA	1 U [1 U]
Calcium (Dissolved)	ug/L	251,000	NA	492,000 [472,000]	NA	465,000 [465,000]
Chromium Total (Dissolved)	ug/L	5 U	NA	50 U [50 U]	NA	5 U [5 U]
Cobalt (Dissolved)	ug/L	10 U	NA	50 U [50 U]	NA	10 U [10 U]
Copper (Dissolved)	ug/L	25 U	NA	25 U [25 U]	NA	25 U [25 U]
Cyanide (Dissolved)	ug/L	NA	NA	NA	10 U [10 U]	NA
Iron (Dissolved)	ug/L	127 U	NA	3,830 [5,270]	NA	6,290 [5,970]
Lead (Dissolved)	ug/L	3 U	NA	3 U [3 U]	NA	3 U [3 U]
Magnesium (Dissolved)	ug/L	85,100	NA	137,000 [142,000]	NA	140,000 [140,000]
Manganese (Dissolved)	ug/L	1,610	NA	501 [646]	NA	689 [677]
Mercury	ug/L	NA	NA	NA	NA	NA

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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Drum Remediation/Wetland Area TWW-1 1.5 - 6.5 05/21/00	Drum Remediation/Wetland Area TWW-1 1.5 - 6.5 05/29/08	Drum Remediation/Wetland Area TWW-2 1.5 - 6.5 01/23/97	Drum Remediation/Wetland Area TWW-2 1.5 - 6.5 01/25/97	Drum Remediation/Wetland Area TWW-2 1.5 - 6.5 05/21/00
Inorganics-Dissolved (Cont'd.)						
Mercury (Dissolved)	ug/L	0.2 U	NA	0.2 U [0.2 U]	NA	0.2 U [0.2 U]
Nickel (Dissolved)	ug/L	40 U	NA	50 U [50 U]	NA	40 U [40 U]
Potassium (Dissolved)	ug/L	2,210 BJ	NA	5,000 UL [5,000 U]	NA	3,100 BJ [3,030 BJ]
Selenium	ug/L	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 U	NA	5 U [5 U]	NA	5 U [5 U]
Silver (Dissolved)	ug/L	5 U	NA	0.5 U [0.5 U]	NA	5 U [5 U]
Sodium (Dissolved)	ug/L	845,000	NA	271,000 [245,000]	NA	242,000 [230,000]
Thallium (Dissolved)	ug/L	6.3 B	NA	20 GWa [10 GWa]	NA	8.4 B [9 B]
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	20 U	NA	20 U [20 U]	NA	20 U [20 U]
Zinc (Dissolved)	ug/L	20 U	NA	20 U [20 U]	NA	20 U [20 U]
Miscellaneous						
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	200	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	14.4	NA	NA	NA
Ferrous Iron	ug/L	1,000 U	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA
Iron	ug/L	250	NA	NA	NA	NA
Manganese	ug/L	1,600	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	NA	NA	NA	NA
Nitrite (as N)	ug/L	NA	NA	NA	NA	NA
Nitrogen	ug/L	50 U	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA
Sulfate	ug/L	340,000	NA	NA	NA	NA
Sulfide	ug/L	2,000 U	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	1,600,000	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	13,000	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Drum Remediation/Wetland Area TWW-1 1.5 - 6.5 05/21/00	Drum Remediation/Wetland Area TWW-1 1.5 - 6.5 05/29/08	Drum Remediation/Wetland Area TWW-2 1.5 - 6.5 01/23/97	Drum Remediation/Wetland Area TWW-2 1.5 - 6.5 01/25/97	Drum Remediation/Wetland Area TWW-2 1.5 - 6.5 05/21/00
Gases						
Carbon Dioxide by Headspace	ug/L	146,930	NA	NA	NA	NA
Carbon monoxide	ug/L	400 U	NA	NA	NA	NA
Dissolved Oxygen	ug/L	1,240	NA	NA	NA	NA
Ethane	ug/L	44.103	NA	NA	NA	NA
Ethene	ug/L	17.324	NA	NA	NA	NA
Methane	ug/L	580	NA	NA	NA	NA
Nitrogen	ug/L	17,930	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Drum Remediation/Wetland Area X-11AR 2 - 12 07/26/95	Drum Remediation/Wetland Area X-12AR 2 - 7 07/26/95	Drum Remediation/Wetland Area X-12B 41.7 - 44.7 07/26/95	Drum Remediation/Wetland Area X-12CAUG 17.5 - 20 07/26/95	Drum Remediation/Wetland Area X-15AR 2 - 12 07/19/95
Inorganics						
Aluminum	ug/L	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
Ferrous Iron	ug/L	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA
Inorganics-Dissolved						
Aluminum (Dissolved)	ug/L	100	100 U	100 U	100 U	100 U
Antimony (Dissolved)	ug/L	5 U	5 U	5 U	5 U	5 U
Arsenic (Dissolved)	ug/L	1.1	2.9	2.3	10.2	1.7
Barium (Dissolved)	ug/L	488	200 U	200 U	200 U	200 U
Beryllium (Dissolved)	ug/L	5 U	5 U	5 U	5 U	5 U
Cadmium (Dissolved)	ug/L	0.2 UJ	0.2 UJ	0.2 UJ	0.2 UJ	0.2 U
Calcium (Dissolved)	ug/L	648,000	148,000	78,000	159,000	131,000
Chromium Total (Dissolved)	ug/L	50 U	50 U	50 U	50 U	50 U
Cobalt (Dissolved)	ug/L	50 U	50 U	50 U	50 U	50 U
Copper (Dissolved)	ug/L	25 U	25 U	25 U	25 U	25 U
Cyanide (Dissolved)	ug/L	NA	NA	NA	NA	NA
Iron (Dissolved)	ug/L	R	R	1,030	6,490	114
Lead (Dissolved)	ug/L	3 U	3 U	3 U	3 U	3 U
Magnesium (Dissolved)	ug/L	178,000	27,000	28,000	48,400	44,500
Manganese (Dissolved)	ug/L	1,230	415	218	313	71
Mercury	ug/L	NA	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Drum Remediation/Wetland Area X-11AR 2 - 12 07/26/95	Drum Remediation/Wetland Area X-12AR 2 - 7 07/26/95	Drum Remediation/Wetland Area X-12B 41.7 - 44.7 07/26/95	Drum Remediation/Wetland Area X-12CAUG 17.5 - 20 07/26/95	Drum Remediation/Wetland Area X-15AR 2 - 12 07/19/95
Inorganics-Dissolved (Cont'd.)						
Mercury (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Nickel (Dissolved)	ug/L	50 U	50 U	50 U	50 U	50 U
Potassium (Dissolved)	ug/L	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U
Selenium	ug/L	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 U	5 U	5 U	5 U	5 U
Silver (Dissolved)	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Sodium (Dissolved)	ug/L	166,000	18,500	52,000	67,700	22,900
Thallium (Dissolved)	ug/L	2 UJ	2 UJ	2 UJ	2 UJ	2 UJ
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	20 U	20 U	20 U	20 U	20 U
Zinc (Dissolved)	ug/L	20 U	20 U	27	20 U	R
Miscellaneous						
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	NA	NA	NA	NA
Nitrite (as N)	ug/L	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA
Sulfate	ug/L	NA	NA	NA	NA	NA
Sulfide	ug/L	NA	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Drum Remediation/Wetland Area X-11AR 2 - 12 07/26/95	Drum Remediation/Wetland Area X-12AR 2 - 7 07/26/95	Drum Remediation/Wetland Area X-12B 41.7 - 44.7 07/26/95	Drum Remediation/Wetland Area X-12CAUG 17.5 - 20 07/26/95	Drum Remediation/Wetland Area X-15AR 2 - 12 07/19/95
Gases						
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Drum Remediation/Wetland Area X-15BR 35 - 40 07/19/95	Drum Remediation/Wetland Area X-20 4.7 - 7.7 07/25/95	Eastern Property Extention MW-2A 4 - 14 07/27/95	Eastern Property Extention MW-2B 36 - 46 07/27/95	Eastern Property Extention MW-2CAUG 24 - 29 07/27/95	Eastern Type III Landfill B-4AR 22 - 27 07/25/95
Inorganics							
Aluminum	ug/L	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved							
Aluminum (Dissolved)	ug/L	100 U	100 U	100 U	100 U	100 U	100 U
Antimony (Dissolved)	ug/L	5 U	5 U	5 U	5 U	5 U	5 U
Arsenic (Dissolved)	ug/L	2.5	15.8	1 UJ	1.4	1 U	1.5
Barium (Dissolved)	ug/L	200 U	224	200 U	200 U	259	200 U
Beryllium (Dissolved)	ug/L	5 U	5 U	5 U	5 U	5 U	5 U
Cadmium (Dissolved)	ug/L	0.29	0.2 UJ	0.2 UJ	0.2 UJ	0.2 UJ	0.2 U
Calcium (Dissolved)	ug/L	91,200	364,000	81,500	98,700	119,000	37,800
Chromium Total (Dissolved)	ug/L	50 U	50 U	50 U	50 U	50 U	50 U
Cobalt (Dissolved)	ug/L	50 U	50 U	50 U	50 U	50 U	50 U
Copper (Dissolved)	ug/L	25 U	25 U	25 U	25 U	25 U	25 U
Cyanide (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA
Iron (Dissolved)	ug/L	100 U	18,400	7,260	1,380	3,870	100 U
Lead (Dissolved)	ug/L	3 U	3 U	3 U	3 U	3 U	3 U
Magnesium (Dissolved)	ug/L	40,600	128,000	19,200	36,000	34,400	36,400
Manganese (Dissolved)	ug/L	181	734	421	123	143	203
Mercury	ug/L	NA	NA	NA	NA	NA	NA

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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Drum Remediation/Wetland Area X-15BR 35 - 40 07/19/95	Drum Remediation/Wetland Area X-20 4.7 - 7.7 07/25/95	Eastern Property Extention MW-2A 4 - 14 07/27/95	Eastern Property Extention MW-2B 36 - 46 07/27/95	Eastern Property Extention MW-2CAUG 24 - 29 07/27/95	Eastern Type III Landfill B-4AR 22 - 27 07/25/95
Inorganics-Dissolved (Cont'd.)							
Mercury (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 UJ
Nickel (Dissolved)	ug/L	50 U	50 U	50 U	50 U	50 U	50 U
Potassium (Dissolved)	ug/L	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	14,800
Selenium	ug/L	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 U	5 U	5 U	5 U	5 U	5 U
Silver (Dissolved)	ug/L	2.5 U*	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ
Sodium (Dissolved)	ug/L	120,000	171,000	48,500	270,000	207,000	56,500
Thallium (Dissolved)	ug/L	2 UJ	2 UJ	2 U	2 UJ	2 U	2 UJ
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	20 U	20 U	20 U	20 U	20 U	20 U
Zinc (Dissolved)	ug/L	20 U	41	20 U	63	20 U	20 U
Miscellaneous							
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	NA	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	13,000 J
Bromide	ug/L	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	NA	NA	NA	NA	NA
Nitrite (as N)	ug/L	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	NA	NA	NA	NA	NA	NA
Sulfide	ug/L	NA	NA	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	NA	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA

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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Drum Remediation/Wetland Area X-15BR 35 - 40 07/19/95	Drum Remediation/Wetland Area X-20 4.7 - 7.7 07/25/95	Eastern Property Extention MW-2A 4 - 14 07/27/95	Eastern Property Extention MW-2B 36 - 46 07/27/95	Eastern Property Extention MW-2CAUG 24 - 29 07/27/95	Eastern Type III Landfill B-4AR 22 - 27 07/25/95
Gases							
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA

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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Eastern Type III Landfill B-4AR 22 - 27 06/12/96	Eastern Type III Landfill B-4AR 22 - 27 03/09/97	Eastern Type III Landfill B-4AR 22 - 27 06/29/99	Eastern Type III Landfill B-4AR 22 - 27 09/02/99	Eastern Type III Landfill B-4AR 22 - 27 05/23/00	Eastern Type III Landfill B-4BR 31.2 - 36.2 07/25/95	Eastern Type III Landfill B-4BR 31.2 - 36.2 06/05/96
Inorganics								
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	NA	72.0	NA	NA	5.00 U	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	26,700	2,290	NA	NA	NA	NA	18,400
Lead	ug/L	NA	NA	NA	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	1,070	170	NA	NA	NA	NA	682
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved								
Aluminum (Dissolved)	ug/L	NA	NA	310 J	200	NA	470	NA
Antimony (Dissolved)	ug/L	NA	NA	4.2	9.4	NA	5 U	NA
Arsenic (Dissolved)	ug/L	NA	NA	5.7	6.1	NA	1.2	NA
Barium (Dissolved)	ug/L	NA	NA	37	31	NA	200 U	NA
Beryllium (Dissolved)	ug/L	NA	NA	1 U	4 UM	NA	5 U	NA
Cadmium (Dissolved)	ug/L	NA	NA	0.87	0.2 U	NA	0.2 U	NA
Calcium (Dissolved)	ug/L	NA	NA	22,000	22,000 J	NA	133,000	NA
Chromium Total (Dissolved)	ug/L	NA	NA	8.1	5.2	NA	50 U	NA
Cobalt (Dissolved)	ug/L	NA	NA	20 U	20 U	NA	50 U	NA
Copper (Dissolved)	ug/L	NA	NA	20 U	7 U	NA	25 U	NA
Cyanide (Dissolved)	ug/L	NA	NA	NA	81	NA	NA	NA
Iron (Dissolved)	ug/L	100 UJ	1,255	650	270	1,600	137	769
Lead (Dissolved)	ug/L	NA	NA	9.3	1 U	NA	3 U	NA
Magnesium (Dissolved)	ug/L	NA	NA	11,000	9,400 J	NA	5,000 U	NA
Manganese (Dissolved)	ug/L	233	153.5	60	52	160	20 U	26.7
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Eastern Type III Landfill B-4AR 22 - 27 06/12/96	Eastern Type III Landfill B-4AR 22 - 27 03/09/97	Eastern Type III Landfill B-4AR 22 - 27 06/29/99	Eastern Type III Landfill B-4AR 22 - 27 09/02/99	Eastern Type III Landfill B-4AR 22 - 27 05/23/00	Eastern Type III Landfill B-4BR 31.2 - 36.2 07/25/95	Eastern Type III Landfill B-4BR 31.2 - 36.2 06/05/96
Inorganics-Dissolved (Cont'd.)								
Mercury (Dissolved)	ug/L	NA	NA	0.2 U	0.2 U	NA	0.2 UJ	NA
Nickel (Dissolved)	ug/L	NA	NA	14 U	50 U	NA	50 U	NA
Potassium (Dissolved)	ug/L	NA	NA	7,800 J	9,400	NA	8,240	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	NA	2 U	2 U	NA	5 U	NA
Silver (Dissolved)	ug/L	NA	NA	0.5 UJ	0.51 JM	NA	0.5 UJ	NA
Sodium (Dissolved)	ug/L	385,000	NA	130,000 J	110,000 J	NA	519,000	775,000
Thallium (Dissolved)	ug/L	NA	NA	1 UJ	NA	NA	2 UJ	NA
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	NA	10 U	10 UJ	NA	20 U	NA
Zinc (Dissolved)	ug/L	20 U	NA	20 U	13	NA	20	27.8
Miscellaneous								
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	4,400	4,700	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	1,000 U	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	300,000	290,000	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	210,000 D	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	316.8	338.4	NA	NA	NA
Ferrous Iron	ug/L	20 U	1,800	NA	NA	1,900	NA	7,300
Hardness	ug/L	NA	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	2,000	NA	NA
Manganese	ug/L	NA	NA	NA	NA	160	NA	NA
Nitrate (as N)	ug/L	80 U	80 U	NA	10 U	NA	NA	80 U
Nitrite (as N)	ug/L	70 U	70 U	NA	NA	NA	NA	70 U
Nitrogen	ug/L	NA	NA	NA	NA	50 U	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	5,800	5,000 U	NA	13,000	5,000 U	NA	47,700
Sulfide	ug/L	200 U	3,100	NA	NA	2,400	NA	1,500
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	19,400	32,300	64,000 D	55,000 D	42,000	NA	53,100
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Eastern Type III Landfill B-4AR 22 - 27 06/12/96	Eastern Type III Landfill B-4AR 22 - 27 03/09/97	Eastern Type III Landfill B-4AR 22 - 27 06/29/99	Eastern Type III Landfill B-4AR 22 - 27 09/02/99	Eastern Type III Landfill B-4AR 22 - 27 05/23/00	Eastern Type III Landfill B-4BR 31.2 - 36.2 07/25/95	Eastern Type III Landfill B-4BR 31.2 - 36.2 06/05/96
Gases								
Carbon Dioxide by Headspace	ug/L	5,600	3,300	NA	NA	3,420	NA	2,200 U
Carbon monoxide	ug/L	400 U	400 U	NA	NA	400 U	NA	400 U
Dissolved Oxygen	ug/L	1,100	1,160	NA	NA	490	NA	500 U
Ethane	ug/L	NA	NA	NA	NA	13.086	NA	NA
Ethene	ug/L	NA	NA	NA	NA	0.23	NA	NA
Methane	ug/L	10,800	13,350	NA	NA	10,580	NA	8,500
Nitrogen	ug/L	12,000	10,400	NA	NA	10,390	NA	10,700

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Eastern Type III Landfill B-4BR 31.2 - 36.2 03/09/97	Eastern Type III Landfill B-4BR 31.2 - 36.2 09/02/99	Eastern Type III Landfill B-4BR 31.2 - 36.2 05/22/00	Eastern Type III Landfill B-4CAUG 48.2 - 53.2 07/25/95	Eastern Type III Landfill B-4CAUG 48.2 - 53.2 06/04/96	Eastern Type III Landfill B-4CAUG 48.2 - 53.2 06/29/99	Eastern Type III Landfill B-4CAUG 48.2 - 53.2 09/02/99
Inorganics								
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	NA	NA	5.00 U	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	1,250	NA	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	40.9	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved								
Aluminum (Dissolved)	ug/L	NA	220	NA	1,050	NA	890 J	580
Antimony (Dissolved)	ug/L	NA	2.7	NA	5 U	NA	2 U	5.1
Arsenic (Dissolved)	ug/L	NA	3.4	NA	4.5	NA	18	20
Barium (Dissolved)	ug/L	NA	18	NA	309	NA	300	170
Beryllium (Dissolved)	ug/L	NA	6 UM	NA	5 U	NA	4 UM	1 U
Cadmium (Dissolved)	ug/L	NA	1.6 J	NA	0.2 U	NA	0.27	0.2 U
Calcium (Dissolved)	ug/L	NA	15,000 J	NA	79,500	NA	91,000	67,000 J
Chromium Total (Dissolved)	ug/L	NA	8.1	NA	50 U	NA	4.8	3.1
Cobalt (Dissolved)	ug/L	NA	20 U	NA	50 U	NA	20 U	20 U
Copper (Dissolved)	ug/L	NA	13 U	NA	25 U	NA	20 U	5 U
Cyanide (Dissolved)	ug/L	NA	5 U	NA	NA	NA	5 U	5 U
Iron (Dissolved)	ug/L	528.1	100	230	106	123 J	130	47
Lead (Dissolved)	ug/L	NA	1 U	NA	3.9	NA	1.5	1 U
Magnesium (Dissolved)	ug/L	NA	5,100 J	NA	5,000 U	NA	30 U	1,000 UJ
Manganese (Dissolved)	ug/L	16.7	20 U	19	20 U	20 U	4.1	20 U
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA

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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Eastern Type III Landfill B-4BR 31.2 - 36.2 03/09/97	Eastern Type III Landfill B-4BR 31.2 - 36.2 09/02/99	Eastern Type III Landfill B-4BR 31.2 - 36.2 05/22/00	Eastern Type III Landfill B-4CAUG 48.2 - 53.2 07/25/95	Eastern Type III Landfill B-4CAUG 48.2 - 53.2 06/04/96	Eastern Type III Landfill B-4CAUG 48.2 - 53.2 06/29/99	Eastern Type III Landfill B-4CAUG 48.2 - 53.2 09/02/99
Inorganics-Dissolved (Cont'd.)								
Mercury (Dissolved)	ug/L	NA	0.2 U	NA	0.2 UJ	NA	0.2 U	0.2 U
Nickel (Dissolved)	ug/L	NA	50 UJM	NA	50 U	NA	110	50
Potassium (Dissolved)	ug/L	NA	100 U	NA	284,000	NA	130,000 DJ	96,000 D
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	2 U	NA	5 U	NA	2 U	2 U
Silver (Dissolved)	ug/L	NA	0.5 UJ	NA	0.5 UJ	NA	0.5 UJ	0.5 UJ
Sodium (Dissolved)	ug/L	NA	92,000 J	NA	325,000	204,000	130,000 J	110,000 J
Thallium (Dissolved)	ug/L	NA	1 U	NA	2 UJ	NA	1 U	1 U
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	10 UJ	NA	20 U	NA	15	11 J
Zinc (Dissolved)	ug/L	NA	4.2 JM	NA	20 U	20 U	37 J	41
Miscellaneous								
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	870	NA	NA	NA	28,000 D	25,000 D
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	6,000 J	NA	NA	NA
Bromide	ug/L	NA	1,000 U	NA	NA	NA	NA	1,000 U
Calcium Carbonate	ug/L	NA	400,000	NA	NA	NA	570,000	480,000
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA	NA
Chloride	ug/L	NA	1,100,000 D	NA	NA	NA	NA	360,000 D
Estimated Un-ionized Ammonia	ug/L	NA	62.64	NA	NA	NA	2,016 D	1,800 D
Ferrous Iron	ug/L	1,700	NA	2,000	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	2,600	NA	NA	NA	NA
Manganese	ug/L	NA	NA	110	NA	NA	NA	NA
Nitrate (as N)	ug/L	80 U	10 U	NA	NA	NA	NA	10 U
Nitrite (as N)	ug/L	350 U	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	50 U	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	34,700	17,000	5,000 U	NA	NA	NA	11,000
Sulfide	ug/L	9,000	NA	2,000 U	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	40,200	46,000 D	110,000	NA	NA	110,000 D	55,000 D
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA	NA

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Eastern Type III Landfill B-4BR 31.2 - 36.2 03/09/97	Eastern Type III Landfill B-4BR 31.2 - 36.2 09/02/99	Eastern Type III Landfill B-4BR 31.2 - 36.2 05/22/00	Eastern Type III Landfill B-4CAUG 48.2 - 53.2 07/25/95	Eastern Type III Landfill B-4CAUG 48.2 - 53.2 06/04/96	Eastern Type III Landfill B-4CAUG 48.2 - 53.2 06/29/99	Eastern Type III Landfill B-4CAUG 48.2 - 53.2 09/02/99
Gases								
Carbon Dioxide by Headspace	ug/L	200	NA	1,980	NA	NA	NA	NA
Carbon monoxide	ug/L	400 U	NA	400 U	NA	NA	NA	NA
Dissolved Oxygen	ug/L	430	NA	530	NA	NA	NA	NA
Ethane	ug/L	NA	NA	7.149	NA	NA	NA	NA
Ethene	ug/L	NA	NA	0.043	NA	NA	NA	NA
Methane	ug/L	14,520	NA	15,150	NA	NA	NA	NA
Nitrogen	ug/L	11,300	NA	11,690	NA	NA	NA	NA

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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Eastern Type III Landfill B-4CAUG 48.2 - 53.2 05/23/00	Eastern Type III Landfill B-4DAUG 64.5 - 69.5 07/25/95	Eastern Type III Landfill B-4DAUG 64.5 - 69.5 06/04/96	Eastern Type III Landfill B-4DAUG 64.5 - 69.5 09/02/99	Eastern Type III Landfill B-4DAUG 64.5 - 69.5 05/22/00	Eastern Type III Landfill MW-133S1 37 - 42 07/20/95	Eastern Type III Landfill MW-133S2 49 - 54 07/20/95
Inorganics								
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	5.00 U [5.00 U]	NA	NA	NA	5.00 U	5.00 U [5.00 U]
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved								
Aluminum (Dissolved)	ug/L	NA	102 [116]	NA	200 UM [100 U]	NA	100 U	137 [100 U]
Antimony (Dissolved)	ug/L	NA	5 U [5 U]	NA	2 U [2 U]	NA	5 U	5 U [5 U]
Arsenic (Dissolved)	ug/L	NA	1 UJ [1 UJ]	NA	1 U [5]	NA	1.6	2.1 [1.4]
Barium (Dissolved)	ug/L	NA	269 [283]	NA	320 [72]	NA	279	309 [301]
Beryllium (Dissolved)	ug/L	NA	5 U [5 U]	NA	1 U [1 U]	NA	5 U	5 U [5 U]
Cadmium (Dissolved)	ug/L	NA	0.2 UJ [0.2 UJ]	NA	0.2 U [0.2 U]	NA	0.2 U	0.2 U [0.2 U]
Calcium (Dissolved)	ug/L	NA	261,000 [273,000]	NA	280,000 J [80,000 J]	NA	130,000	249,000 [243,000]
Chromium Total (Dissolved)	ug/L	NA	50 U [50 U]	NA	2 U [2 U]	NA	50 U	50 U [50 U]
Cobalt (Dissolved)	ug/L	NA	50 U [50 U]	NA	20 U [20 U]	NA	50 U	50 U [50 U]
Copper (Dissolved)	ug/L	NA	25 U [25 U]	NA	11 U [7 U]	NA	25 U	25 U [25 U]
Cyanide (Dissolved)	ug/L	NA	NA	NA	5 U [5 U]	NA	NA	NA
Iron (Dissolved)	ug/L	100	3,410 [3,580]	3,350 J	2,000 [540]	2,900	6,660	5,380 [5,130]
Lead (Dissolved)	ug/L	NA	3 U [3 U]	NA	1 U [1 U]	NA	3 U	3 U [3 U]
Magnesium (Dissolved)	ug/L	NA	91,500 [96,200]	NA	88,000 J [12,000 J]	NA	47,400	87,700 [85,800]
Manganese (Dissolved)	ug/L	10 U	168 [180]	183	160 [330]	180	292	285 [281]
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Eastern Type III Landfill B-4CAUG 48.2 - 53.2 05/23/00	Eastern Type III Landfill B-4DAUG 64.5 - 69.5 07/25/95	Eastern Type III Landfill B-4DAUG 64.5 - 69.5 06/04/96	Eastern Type III Landfill B-4DAUG 64.5 - 69.5 09/02/99	Eastern Type III Landfill B-4DAUG 64.5 - 69.5 05/22/00	Eastern Type III Landfill MW-133S1 37 - 42 07/20/95	Eastern Type III Landfill MW-133S2 49 - 54 07/20/95
Inorganics-Dissolved (Cont'd.)								
Mercury (Dissolved)	ug/L	NA	0.2 U [0.2 U]	NA	0.2 U [0.2 U]	NA	0.2 U	0.2 U [0.2 U]
Nickel (Dissolved)	ug/L	NA	50 U [50 U]	NA	50 U [50 U]	NA	50 U	50 U [50 U]
Potassium (Dissolved)	ug/L	NA	8,170 [7,780]	NA	11,000 [5,000]	NA	5,000 U	5,400 [5,710]
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	5 U [5 U]	NA	2 U [2 U]	NA	5 U	5 U [5 U]
Silver (Dissolved)	ug/L	NA	0.5 U [0.5 U]	NA	0.5 UJ [0.5 UJ]	NA	0.5 U	0.5 U [0.5 U]
Sodium (Dissolved)	ug/L	NA	888,000 [932,000]	1,170,000	69,000 J [73,000 J]	NA	279,000	616,000 [599,000]
Thallium (Dissolved)	ug/L	NA	2 UJ [2 UJ]	NA	1 U [1 U]	NA	2 UJ	4 UJ* [4 UJ*]
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	20 U [20 U]	NA	10 UJ [10 UJ]	NA	20 U	20 U [20 U]
Zinc (Dissolved)	ug/L	NA	30 [20 U]	20 U	11 [13]	NA	20 U	20 U [20 U]
Miscellaneous								
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	NA	11,000 D [2,300]	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	4,000 J	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	9,000 [1,000 U]	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	310,000 [200,000]	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	2,000,000 D [190,000 D]	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	NA	792 D [165.6]	NA	NA	NA
Ferrous Iron	ug/L	1,000 U	NA	NA	NA	2,900	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	440	NA	NA	NA	2,900	NA	NA
Manganese	ug/L	10	NA	NA	NA	180	NA	NA
Nitrate (as N)	ug/L	NA	NA	NA	10 U [10 U]	NA	NA	NA
Nitrite (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	50 U	NA	NA	NA	50 U	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	5,000 U	NA	NA	120,000 D [66,000]	100,000	NA	NA
Sulfide	ug/L	2,000 U	NA	NA	NA	2,000 U	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	100,000	NA	NA	3,700 [6,300]	5,300	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Eastern Type III Landfill B-4CAUG 48.2 - 53.2 05/23/00	Eastern Type III Landfill B-4DAUG 64.5 - 69.5 07/25/95	Eastern Type III Landfill B-4DAUG 64.5 - 69.5 06/04/96	Eastern Type III Landfill B-4DAUG 64.5 - 69.5 09/02/99	Eastern Type III Landfill B-4DAUG 64.5 - 69.5 05/22/00	Eastern Type III Landfill MW-133S1 37 - 42 07/20/95	Eastern Type III Landfill MW-133S2 49 - 54 07/20/95
Gases								
Carbon Dioxide by Headspace	ug/L	600 U	NA	NA	NA	29,870	NA	NA
Carbon monoxide	ug/L	400 U	NA	NA	NA	400 U	NA	NA
Dissolved Oxygen	ug/L	440	NA	NA	NA	1,070	NA	NA
Ethane	ug/L	2.239	NA	NA	NA	1.033	NA	NA
Ethene	ug/L	0.601	NA	NA	NA	0.431	NA	NA
Methane	ug/L	17,100	NA	NA	NA	105.91	NA	NA
Nitrogen	ug/L	12,210	NA	NA	NA	21,760	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Eastern Type III Landfill MW-133WT 4 - 14 07/20/95	Eastern Type III Landfill MW-134S1 34 - 39 07/20/95	Eastern Type III Landfill MW-134S2 46.7 - 51.7 07/20/95	Eastern Type III Landfill MW-134WT 4 - 9 07/20/95	Green Point Landfill B-2BAUG 20 - 25 07/29/95	Green Point Landfill B-2R 3 - 13 07/29/95	Green Point Landfill MW-128S1 23.9 - 28.9 07/26/95	Green Point Landfill MW-128S1 23.9 - 28.9 03/12/97
Inorganics									
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	7.00	8.30	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	25,600
Lead	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	390
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved									
Aluminum (Dissolved)	ug/L	100 U	111	107	100 U	100 U	NA	502	NA
Antimony (Dissolved)	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA
Arsenic (Dissolved)	ug/L	5.1	1.6	3.7	6.7	1.2	3.5	17.3	NA
Barium (Dissolved)	ug/L	200 U	213	369	200 U	200 U	584	936	NA
Beryllium (Dissolved)	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA
Cadmium (Dissolved)	ug/L	0.2 U	0.2 U	0.2 UJ	0.2 U	0.2 UJ	0.2 UJ	0.2 UJ	NA
Calcium (Dissolved)	ug/L	77,800	140,000	385,000	34,700	127,000	NA	442,000	NA
Chromium Total (Dissolved)	ug/L	50 U	50 U	50 U	50 U	50 U	50 U	50 U	NA
Cobalt (Dissolved)	ug/L	50 U	50 U	50 U	50 U	50 U	50 U	50 U	NA
Copper (Dissolved)	ug/L	25 U	25 U	25 U	25 U	25 U	25 U	25 U	NA
Cyanide (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Iron (Dissolved)	ug/L	1,580	5,750	9,880	3,040	1,740	NA	31,900	27,600
Lead (Dissolved)	ug/L	3 U	3 U	3 U	3 U	3 U	3 U	3 U	NA
Magnesium (Dissolved)	ug/L	16,500	50,400	139,000	10,300	26,900	NA	170,000	NA
Manganese (Dissolved)	ug/L	461	383	266	512	396	NA	437	380
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Eastern Type III Landfill MW-133WT 4 - 14 07/20/95	Eastern Type III Landfill MW-134S1 34 - 39 07/20/95	Eastern Type III Landfill MW-134S2 46.7 - 51.7 07/20/95	Eastern Type III Landfill MW-134WT 4 - 9 07/20/95	Green Point Landfill B-2BAUG 20 - 25 07/29/95	Green Point Landfill B-2R 3 - 13 07/29/95	Green Point Landfill MW-128S1 23.9 - 28.9 07/26/95	Green Point Landfill MW-128S1 23.9 - 28.9 03/12/97
Inorganics-Dissolved (Cont'd.)									
Mercury (Dissolved)	ug/L	0.2 U	0.2 U	0.2 UJ	0.2 U	0.2 UJ	0.2 U	0.2 U	NA
Nickel (Dissolved)	ug/L	50 U	50 U	50 U	50 U	50 U	50 U	50 U	NA
Potassium (Dissolved)	ug/L	13,800	5,000 U	6,570	27,600	5,000 U	NA	5,000 U	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA
Silver (Dissolved)	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
Sodium (Dissolved)	ug/L	651,000	193,000	1,140,000	242,000	433,000	NA	582,000	NA
Thallium (Dissolved)	ug/L	2 UJ	2 UJ	4 UJ*	2 UJ	2 UJ	2 UJ	8 UJ*	NA
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	100 U	NA	NA
Vanadium (Dissolved)	ug/L	20 U	20 U	20 U	20 U	20 U	20 U	20 U	NA
Zinc (Dissolved)	ug/L	20 U	20 U	20 U	R	20 U	20 U	24	NA
Miscellaneous									
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	5,300
Hardness	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA	80 U
Nitrite (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA	70 U
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	5,000 U
Sulfide	ug/L	NA	NA	NA	NA	NA	500 U	NA	1,000
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA	NA	144,000
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Eastern Type III Landfill MW-133WT 4 - 14 07/20/95	Eastern Type III Landfill MW-134S1 34 - 39 07/20/95	Eastern Type III Landfill MW-134S2 46.7 - 51.7 07/20/95	Eastern Type III Landfill MW-134WT 4 - 9 07/20/95	Green Point Landfill B-2BAUG 20 - 25 07/29/95	Green Point Landfill B-2R 3 - 13 07/29/95	Green Point Landfill MW-128S1 23.9 - 28.9 07/26/95	Green Point Landfill MW-128S1 23.9 - 28.9 03/12/97
Gases									
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA	NA	535,800
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	400 U
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA	170
Ethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA	NA	11,080
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	3,000

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Green Point Landfill MW-128S1 23.9 - 28.9 05/19/00	Green Point Landfill MW-128S1 23.9 - 28.9 06/20/01	Green Point Landfill MW-128S1 23.9 - 28.9 06/26/02	Green Point Landfill MW-128S1 23.9 - 28.9 06/18/03	Green Point Landfill MW-128S1 23.9 - 28.9 05/25/04	Green Point Landfill MW-128S1 23.9 - 28.9 06/22/05	Green Point Landfill MW-128S1 23.9 - 28.9 12/12/06	Green Point Landfill MW-128S1 23.9 - 28.9 12/05/07	Green Point Landfill MW-128S1 23.9 - 28.9 03/12/08
Inorganics										
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	0.200 UJ	NA	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved										
Aluminum (Dissolved)	ug/L	100 U	100 U	100 U	100 U	100 U	200 U [200 U]	200 U	200 U	200 U
Antimony (Dissolved)	ug/L	5 U	5 U	5 U	5 U	5 U	0.38 B [0.22 B]	2 U	2 U	2 U
Arsenic (Dissolved)	ug/L	18.1	19	22.6	2.5 B	6.9 B	14.2 [18.1]	5.6	11.1	4.7 J
Barium (Dissolved)	ug/L	820	791	727	354	405	316 J [362 J]	368	336	401
Beryllium (Dissolved)	ug/L	4 U	4 U	4 U	4 U	4 U	1 U [1 U]	1 U	1 U	1 U
Cadmium (Dissolved)	ug/L	1 U	1 U	1 U	1 U	1 U	0.5 U [0.5 U]	1 U	1 U	1 U
Calcium (Dissolved)	ug/L	398,000	367,000	365,000	304,000	281,000	381,000 J [355,000 J]	329,000	337,000	321,000
Chromium Total (Dissolved)	ug/L	4.2 B	1.9 B	2.6 B	5 U	5 U	2 U [2 U]	5 U	5 U	5 U
Cobalt (Dissolved)	ug/L	4.3 B	4.6 B	5 B	40 U	2.4 B	1.9 [2.2]	2.8 J	4.4 J	2.5 J
Copper (Dissolved)	ug/L	25 U	25 U	25 U	25 U	25 U	0.76 BJ [0.86 BJ]	0.92 J	0.99 J	2 U
Cyanide (Dissolved)	ug/L	5 U	5 U	5 U	5 U	5 U	10 U [10 U]	10 U	10 U	10 U
Iron (Dissolved)	ug/L	22,000	20,400	22,900	100 U	3,460	1,330 [1,450]	284	899	2,330
Lead (Dissolved)	ug/L	3 U	3 U	3 U	3 U	3 U	1 U [1 U]	3 U	3 U	3 U
Magnesium (Dissolved)	ug/L	145,000	136,000	138,000	8,300 U	43,200	12,100 [11,400]	8,960	13,700	51,900
Manganese (Dissolved)	ug/L	339	377	342	20 U	189	25 [27.7]	16.4	36.2	144
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Green Point Landfill MW-128S1 23.9 - 28.9 05/19/00	Green Point Landfill MW-128S1 23.9 - 28.9 06/20/01	Green Point Landfill MW-128S1 23.9 - 28.9 06/26/02	Green Point Landfill MW-128S1 23.9 - 28.9 06/18/03	Green Point Landfill MW-128S1 23.9 - 28.9 05/25/04	Green Point Landfill MW-128S1 23.9 - 28.9 06/22/05	Green Point Landfill MW-128S1 23.9 - 28.9 12/12/06	Green Point Landfill MW-128S1 23.9 - 28.9 12/05/07	Green Point Landfill MW-128S1 23.9 - 28.9 03/12/08
Inorganics-Dissolved (Cont'd.)										
Mercury (Dissolved)	ug/L	0.2 U	NA	0.2 UJ	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U
Nickel (Dissolved)	ug/L	25.6 B	24 B	19.3 B	24.7 B	18.4 B	29.3 [31.2]	25.5	20.6	24.1
Potassium (Dissolved)	ug/L	7,750	8,760 J	5,900 J	17,700	10,100	12,000 [11,200]	9,150	8,700	7,150
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 U	5 U	5 U	5 U	5 U	39.1 [52.3]	5 U	5 U	5 U
Silver (Dissolved)	ug/L	5 U	5 U	5 U	5 U	5 U	0.14 B [0.047 B]	R	0.2 U	0.2 U
Sodium (Dissolved)	ug/L	515,000	528,000	498,000	373,000	349,000	424,000 [398,000]	423,000	456,000	426,000
Thallium (Dissolved)	ug/L	6.2 B	6.1 B	6.5 BJ	10 U	10 U	1 U [1 U]	1 U	1 U	1 U
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	50 U	3.3 B	3.1 B	50 U	50 U	1.1 B [1 B]	4 U	4 U	4 U
Zinc (Dissolved)	ug/L	20 U	20 U	20 U	20 U	20 U	12.6 J [14 J]	7.2 J	20 U	7.4 J
Miscellaneous										
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	3,300	7,400	7,200	6,900	6,400	5,600 [5,700]	5,000	3,300	3,900
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	ug/L	1,320,000 J	1,230,000	1,460,000	1,090,000	1,220,000	1,230,000 [1,230,000]	1,250,000	1,300,000	1,170,000
Estimated Un-ionized Ammonia	ug/L	237.6	532.8	518.4	496.8	460.8	403.2 [410.4]	360	237.6	280.8
Ferrous Iron	ug/L	20,000	NA	NA	NA	NA	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	22,000	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	330	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	5,000 UG	500 U	500 U	500 U	40 B	100 U [100 U]	100 U	100 U	100 U
Nitrite (as N)	ug/L	5,000 UG	R	10,000 U	500 U	500 U	2,000 U [2,000 U]	930 J	100 U	100 U
Nitrogen	ug/L	80	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	6.7	7.7	7.6	9.8	9.2	8.5 [8.5]	8.5 J	9.1	7.1
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	3,800 BG	5,000	3,000	22,700 J	27,200	33,800 [33,800]	36,300	38,900	29,500
Sulfide	ug/L	2,000 U	NA	NA	NA	NA	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	3,000,000	3,100,000	3,100,000	2,700,000	2,400,000	2,800,000 [2,800,000]	3,700,000	2,500,000 J	2,400,000
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	120,000	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	Green Point Landfill MW-128S1 23.9 - 28.9 05/19/00	Green Point Landfill MW-128S1 23.9 - 28.9 06/20/01	Green Point Landfill MW-128S1 23.9 - 28.9 06/26/02	Green Point Landfill MW-128S1 23.9 - 28.9 06/18/03	Green Point Landfill MW-128S1 23.9 - 28.9 05/25/04	Green Point Landfill MW-128S1 23.9 - 28.9 06/22/05	Green Point Landfill MW-128S1 23.9 - 28.9 12/12/06	Green Point Landfill MW-128S1 23.9 - 28.9 12/05/07	Green Point Landfill MW-128S1 23.9 - 28.9 03/12/08
Gases										
Carbon Dioxide by Headspace	ug/L	331,600	NA	NA	NA	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	400 U	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	300	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	ug/L	9,460	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	5,640	NA	NA	NA	NA	NA	NA	NA	NA

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Green Point Landfill MW-128WT 8.1 - 18.1 07/26/95	Green Point Landfill MW-128WT 8.1 - 18.1 03/12/97	Green Point Landfill MW-128WT 8.1 - 18.1 05/19/00	Green Point Landfill MW-128WT 8.1 - 18.1 06/20/01	Green Point Landfill MW-128WT 8.1 - 18.1 06/26/02	Green Point Landfill MW-128WT 8.1 - 18.1 06/18/03	Green Point Landfill MW-128WT 8.1 - 18.1 05/25/04	Green Point Landfill MW-128WT 8.1 - 18.1 06/22/05	Green Point Landfill MW-128WT 8.1 - 18.1 12/13/06
Inorganics										
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	8.80	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	26,300	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	890	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	0.200 UJ	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved										
Aluminum (Dissolved)	ug/L	448	NA	100 U	100 U	100 U	100 U	100 U	200 U	200 U
Antimony (Dissolved)	ug/L	5 U	NA	5 U	5 U	5 U	5 U	5 U	0.16 B	2 U
Arsenic (Dissolved)	ug/L	3.7	NA	5.1 B	5.9 B	5.8 B	3.7 B	3.8 B	16.4	5 U
Barium (Dissolved)	ug/L	628	NA	142	219	244	223	188	190 J	128
Beryllium (Dissolved)	ug/L	5 U	NA	4 U	4 U	4 U	4 U	4 U	1 U	1 U
Cadmium (Dissolved)	ug/L	0.2 UJ	NA	1 U	1 U	1 U	0.35 B	1 U	0.15 B	1 U
Calcium (Dissolved)	ug/L	360,000	NA	217,000	186,000	152,000	169,000	124,000	123,000 J	53,500
Chromium Total (Dissolved)	ug/L	50 U	NA	1.7 B	2 B	2.7 B	2.4 B	5 U	3.2	5 U
Cobalt (Dissolved)	ug/L	50 U	NA	1.7 B	7.5 B	9.3 B	7.8 B	8 B	8.3	6 J
Copper (Dissolved)	ug/L	25 U	NA	25 U	25 U	25 U	25 U	25 U	0.69 BJ	0.53 J
Cyanide (Dissolved)	ug/L	NA	NA	5 U	5 U	2.1 B	5 U	5 U	10 U	3.7 J
Iron (Dissolved)	ug/L	24,500	30,000	20,100	19,400	14,900	16,700	10,900	8,580	4,310
Lead (Dissolved)	ug/L	3 U	NA	3 U	3 U	3 U	3 U	3 U	1 U	3 U
Magnesium (Dissolved)	ug/L	115,000	NA	54,600	61,500	68,300	80,900	65,800	88,900	63,900
Manganese (Dissolved)	ug/L	918	930	2,170	1,520	828	760	388	246	128
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Green Point Landfill MW-128WT 8.1 - 18.1 07/26/95	Green Point Landfill MW-128WT 8.1 - 18.1 03/12/97	Green Point Landfill MW-128WT 8.1 - 18.1 05/19/00	Green Point Landfill MW-128WT 8.1 - 18.1 06/20/01	Green Point Landfill MW-128WT 8.1 - 18.1 06/26/02	Green Point Landfill MW-128WT 8.1 - 18.1 06/18/03	Green Point Landfill MW-128WT 8.1 - 18.1 05/25/04	Green Point Landfill MW-128WT 8.1 - 18.1 06/22/05	Green Point Landfill MW-128WT 8.1 - 18.1 12/13/06
Inorganics-Dissolved (Cont'd.)										
Mercury (Dissolved)	ug/L	0.2 U	NA	0.2 U	NA	0.2 UJ	0.2 U	0.2 U	0.2 U	0.2 U
Nickel (Dissolved)	ug/L	50 U	NA	14.5 B	25.8 B	31.6 B	24.8 B	26.5 B	31.6	27.8
Potassium (Dissolved)	ug/L	5,420	NA	33,900	63,900 J	89,200 J	86,000	93,600	137,000	107,000
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 U	NA	5 U	5 U	5 U	5 U	5 U	47.2	5 U
Silver (Dissolved)	ug/L	0.5 U	NA	5 U	5 U	5 U	5 U	5 U	0.079 B	R
Sodium (Dissolved)	ug/L	720,000	NA	331,000	509,000	556,000	504,000	479,000	654,000	358,000
Thallium (Dissolved)	ug/L	8 UJ*	NA	6.9 B	10 U	10 UJ	10 U	10 U	1 U	1 U
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	20 U	NA	50 U	50 U	50 U	50 U	50 U	5 U	4 U
Zinc (Dissolved)	ug/L	31	NA	20 U	20 U	20 U	20 U	20 U	9.1 BJ	13.1 J
Miscellaneous										
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	13,000	66,000	97,000	100,000	110,000	120,000	110,000
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	ug/L	NA	NA	775,000 J	995,000	1,280,000	1,000,000	905,000	1,170,000	704,000
Estimated Un-ionized Ammonia	ug/L	NA	NA	936	4,752	6,984	7,200	7,920	8,640	7,920
Ferrous Iron	ug/L	NA	6,700	20,000	NA	NA	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	21,000	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	2,000	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	140	2,500 UG	500 U	500 U	500 U	500 U	100 U	100 U
Nitrite (as N)	ug/L	NA	70 U	2,500 UG	R	10,000 U	500 U	5,000 U	2,000 U	320
Nitrogen	ug/L	NA	NA	50 U	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	7.2	7.9	8	8.1	7.6	7.6	8 J
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	NA	5,000 U	101,000	105,000	59,200	174,000 J	132,000	45,800	91,500
Sulfide	ug/L	NA	1,000	2,000 U	NA	NA	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	1,800,000	2,100,000	2,700,000	2,100,000	2,100,000	2,600,000	1,400,000
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	135,000	68,000	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Gases										
Carbon Dioxide by Headspace	ug/L	NA	345,200	37,790	NA	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	400 U	400 U	NA	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	250	470	NA	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	11,780	390	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	5,600	13,200	NA	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Green Point Landfill MW-128WT 8.1 - 18.1 12/05/07	Green Point Landfill MW-128WT 8.1 - 18.1 03/12/08	Green Point Landfill MW-129WT 2 - 12 07/28/95	Green Point Landfill MW-129WT 2 - 12 06/12/96	Green Point Landfill MW-129WT 2 - 12 05/23/00	Green Point Landfill MW-129WT 2 - 12 09/17/04	Green Point Landfill MW-129WT 2 - 12 06/03/08	Green Point Landfill X-1A 14 - 17 07/29/95	Green Point Landfill X-1A 14 - 17 06/10/96
Inorganics										
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	39.0 [38.0]	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	131 [129]	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	0.500 U [0.500 U]	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	0.270 B [2.00 U]	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	2.00 U [2.00 U]	NA	NA	NA
Cyanide (total)	ug/L	NA	NA	5.00 U	NA	NA	NA	NA	5.00 U	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	7,970	NA	21,500 J [21,400 J]	NA	NA	31,600
Lead	ug/L	NA	NA	NA	NA	NA	1.00 U [1.00 U]	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	770	NA	NA	NA	NA	1,240
Mercury	ug/L	NA	NA	NA	NA	NA	0.200 U [0.200 U]	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	5.40 J [5.50 J]	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	2.30 [1.20 B]	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	0.500 UJ [0.500 UJ]	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	4.10 B [4.50 B]	NA	NA	NA
Inorganics-Dissolved										
Aluminum (Dissolved)	ug/L	200 U	200 U	100 U	100 U	NA	NA	NA	100 U	100 U
Antimony (Dissolved)	ug/L	2 U	2 U	5 U	5 U	NA	NA	NA	5 U	5 U
Arsenic (Dissolved)	ug/L	4.6 J	5 U	22.3	7.3	NA	38 [37]	NA	3.6	NA
Barium (Dissolved)	ug/L	164	86 J	200 U	200 U	NA	132 [130]	NA	535	515
Beryllium (Dissolved)	ug/L	1 U	1 U	5 U	5 U	NA	NA	NA	5 U	NA
Cadmium (Dissolved)	ug/L	1 U	1 U	0.2 UJ	0.5 U	NA	0.5 U [0.5 U]	NA	0.2 UJ	NA
Calcium (Dissolved)	ug/L	59,500	66,000	225,000	195,000	NA	NA	NA	175,000	NA
Chromium Total (Dissolved)	ug/L	3.7 J	5 U	50 U	50 U	NA	2 U [2 U]	NA	50 U	NA
Cobalt (Dissolved)	ug/L	9.3	2.7 J	50 U	50 U	NA	NA	NA	50 U	NA
Copper (Dissolved)	ug/L	0.79 J	2 U	25 U	25 U	NA	2 U [2 U]	NA	25 U	NA
Cyanide (Dissolved)	ug/L	10 U	10 U	NA	5 U	NA	NA	NA	NA	NA
Iron (Dissolved)	ug/L	5,290	4,730	4,210	2,960 J	2,100	21,300 J [21,300 J]	NA	7,120	30,000 J
Lead (Dissolved)	ug/L	3 U	3 U	3 U	3 U	NA	1 U [1 U]	NA	3 U	3 U
Magnesium (Dissolved)	ug/L	81,200	72,500	66,900	46,300	NA	NA	NA	110,000	102,000
Manganese (Dissolved)	ug/L	127	141	485	680	600	NA	NA	666	1,210 J
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Green Point Landfill MW-128WT 8.1 - 18.1 12/05/07	Green Point Landfill MW-128WT 8.1 - 18.1 03/12/08	Green Point Landfill MW-129WT 2 - 12 07/28/95	Green Point Landfill MW-129WT 2 - 12 06/12/96	Green Point Landfill MW-129WT 2 - 12 05/23/00	Green Point Landfill MW-129WT 2 - 12 09/17/04	Green Point Landfill MW-129WT 2 - 12 06/03/08	Green Point Landfill X-1A 14 - 17 07/29/95	Green Point Landfill X-1A 14 - 17 06/10/96
Inorganics-Dissolved (Cont'd.)										
Mercury (Dissolved)	ug/L	0.2 U	0.2 U	0.2 UJ	0.2 U	NA	0.2 U [0.2 U]	NA	0.2 UJ	NA
Nickel (Dissolved)	ug/L	32.9	12.7 J	50 U	50 U	NA	5.5 J [5.6 J]	NA	50 U	50 U
Potassium (Dissolved)	ug/L	144,000	65,700	5,000 U	5,000 U	NA	NA	NA	235,000	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 U	5 U	5 U	5 U	NA	2 [1.4 B]	NA	5 U	NA
Silver (Dissolved)	ug/L	0.2 U	0.2 U	0.5 U	0.5 UJ	NA	0.5 U [0.5 U]	NA	0.5 U	NA
Sodium (Dissolved)	ug/L	583,000	210,000	182,000	229,000	NA	NA	NA	580,000	389,000
Thallium (Dissolved)	ug/L	1 U	1 U	2 UJ	4 UJ	NA	NA	NA	8 UJ*	NA
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	4 U	4 U	20 U	20 U	NA	NA	NA	20 U	NA
Zinc (Dissolved)	ug/L	20 U	20 U	20 U	20 U	NA	10 U [10 U]	NA	20 U	20 U
Miscellaneous										
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1,400,000
Ammonia Nitrogen	ug/L	130,000	70,000	NA	NA	NA	NA	500	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	35,000
Bromide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	ug/L	1,140,000	517,000	NA	NA	NA	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	9,360	5,040	NA	NA	NA	NA	36	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	180	1,600	NA	NA	NA	2,070
Hardness	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	9,600	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	650	NA	NA	NA	NA
Nitrate (as N)	ug/L	100 U	100 U	NA	80 U	NA	NA	NA	NA	80 U
Nitrite (as N)	ug/L	100 U	100 U	NA	70 U	NA	NA	NA	NA	70 U
Nitrogen	ug/L	NA	NA	NA	NA	50 U	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	7.8	7.8	NA	NA	NA	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	34,100	136,000	NA	23,100	57,000	NA	NA	NA	5,000 U
Sulfide	ug/L	NA	NA	NA	280	2,000 U	NA	NA	NA	200 U
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	2,400,000	1,300,000	NA	NA	NA	NA	1,000,000	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	18,100	37,000	NA	NA	NA	62,000
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	10,000 U

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Green Point Landfill MW-128WT 8.1 - 18.1 12/05/07	Green Point Landfill MW-128WT 8.1 - 18.1 03/12/08	Green Point Landfill MW-129WT 2 - 12 07/28/95	Green Point Landfill MW-129WT 2 - 12 06/12/96	Green Point Landfill MW-129WT 2 - 12 05/23/00	Green Point Landfill MW-129WT 2 - 12 09/17/04	Green Point Landfill MW-129WT 2 - 12 06/03/08	Green Point Landfill X-1A 14 - 17 07/29/95	Green Point Landfill X-1A 14 - 17 06/10/96
Gases										
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	203,900	178,400	NA	NA	NA	280,300
Carbon monoxide	ug/L	NA	NA	NA	400 U	400 U	NA	NA	NA	400 U
Dissolved Oxygen	ug/L	NA	NA	NA	2,700	720	NA	NA	NA	500 U
Ethane	ug/L	NA	NA	NA	NA	0.473	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	0.077	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	200 U	24.04	NA	NA	NA	14,700
Nitrogen	ug/L	NA	NA	NA	16,000	15,400	NA	NA	NA	4,900

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Green Point Landfill X-1A 14 - 17 03/08/97	Green Point Landfill X-1A 14 - 17 05/23/00	Green Point Landfill X-1A 14 - 17 06/20/01	Green Point Landfill X-1A 14 - 17 06/25/02	Green Point Landfill X-1A 14 - 17 06/17/03	Green Point Landfill X-1A 14 - 17 06/18/03	Green Point Landfill X-1A 14 - 17 05/25/04	Green Point Landfill X-1A 14 - 17 06/21/05	Green Point Landfill X-1A 14 - 17 12/12/06
Inorganics										
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	21,000	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	698	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	0.200 UJ	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved										
Aluminum (Dissolved)	ug/L	NA	100 U	100 U	100 U	NA	100 U	100 U	200 U	200 U
Antimony (Dissolved)	ug/L	NA	5 U	5 U	5 U	NA	5 U	5 U	0.12 B	2 U
Arsenic (Dissolved)	ug/L	NA	3.5 B	4.4 B	3.1 B	NA	10 U	2.7 B	4.7	5 U
Barium (Dissolved)	ug/L	NA	475	599	304	NA	287	173	137	96 J
Beryllium (Dissolved)	ug/L	NA	4 U	4 U	4 U	NA	4 U	4 U	1 U	1 U
Cadmium (Dissolved)	ug/L	NA	1 U	1 U	1 U	NA	0.69 B	1 U	0.5 U	1 U
Calcium (Dissolved)	ug/L	NA	168,000	172,000	138,000	NA	156,000	101,000	97,600	64,500
Chromium Total (Dissolved)	ug/L	NA	3.2 B	5.4	2.4 B	NA	5 U	5 U	10 U	5 U
Cobalt (Dissolved)	ug/L	NA	40 U	4.9 B	2.6 B	NA	40 U	2.9 B	2.8 BG	1.6 J
Copper (Dissolved)	ug/L	NA	25 U	25 U	25 U	NA	25 U	25 U	2 U	2 U
Cyanide (Dissolved)	ug/L	NA	4.5 B	4.8 B	3.5 B	5 U	NA	5 U	10 U	6 J
Iron (Dissolved)	ug/L	19,420	18,500 J	16,000	14,200	NA	38,900	19,200	21,400	13,500
Lead (Dissolved)	ug/L	NA	3 U	3 U	3 U	NA	3 U	3 U	1 U	3 U
Magnesium (Dissolved)	ug/L	NA	111,000	106,000	80,600	NA	98,000	56,400	49,600	32,800
Manganese (Dissolved)	ug/L	673.3	835	703	646	NA	1,090	705	693	529
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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INORGANIC COMPOUNDS

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

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Inorganics-Dissolved (Cont'd.)										
Mercury (Dissolved)	ug/L	NA	0.2 U	NA	0.2 UJ	NA	0.2 U	0.2 U	0.2 U	0.2 U
Nickel (Dissolved)	ug/L	NA	17.2 B	28.1 B	18.7 B	NA	16.5 B	13.7 B	13.8	20 U
Potassium (Dissolved)	ug/L	NA	163,000	192,000 J	118,000 J	NA	98,100	79,800	65,400 J	46,500
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	5 U	5 U	5 U	NA	5 U	5 U	12.4	5 U
Silver (Dissolved)	ug/L	NA	5 U	5 U	5 U	NA	5 U	5 U	0.5 U	R
Sodium (Dissolved)	ug/L	NA	339,000	464,000	353,000	NA	311,000	275,000	258,000	180,000
Thallium (Dissolved)	ug/L	NA	10 U	5.7 B	7.3 BJ	NA	10 U	10 U	1 U	1 U
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	50 U	50 U	50 U	NA	50 U	50 U	25 U	4 U
Zinc (Dissolved)	ug/L	NA	20 U	20 U	20 U	NA	20 U	20 U	10	20 U
Miscellaneous										
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	160,000	210,000	94,000	74,000	NA	73,000	59,000	37,000
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	ug/L	NA	505,000	893,000	714,000 J	NA	593,000	473,000	419,000	153,000
Estimated Un-ionized Ammonia	ug/L	NA	11,520	15,120	6,768	5,328	NA	5,256	4,248	2,664
Ferrous Iron	ug/L	16,000	18,000	NA	NA	NA	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	18,000	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	840	NA	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	80 U	2,500 U	500 U	500 U	NA	500 U	20 B	100 U	100 U
Nitrite (as N)	ug/L	70 U	2,500 U	R	10,000 U	NA	500 U	500 U	500 U	100 U
Nitrogen	ug/L	NA	50 U	NA	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	NA	7	7.8	7.3	NA	7.9	7.1	7	7.3 J
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	5,000 U	528,000	5,100	180 B	NA	95,400 J	2,500	1,000 U	1,000 U
Sulfide	ug/L	2,800	2,000 U	NA	NA	NA	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	2,300,000	2,100,000	2,000,000	NA	1,700,000	1,400,000	1,300,000	890,000
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	90,100	64,000	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

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Gases										
Carbon Dioxide by Headspace	ug/L	265,500	147,780	NA	NA	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	400 U	400 U	NA	NA	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	140	270	NA	NA	NA	NA	NA	NA	NA
Ethane	ug/L	NA	117.414	NA	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	1.989	NA	NA	NA	NA	NA	NA	NA
Methane	ug/L	19,670	17,670	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	2,900	4,480	NA	NA	NA	NA	NA	NA	NA

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Inorganics										
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	NA	9.10	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	37,700	19,700	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	1,140	993	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	0.200 UJ	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved										
Aluminum (Dissolved)	ug/L	200 U	200 U	100 U	118 U	NA	100 U	100 U	100 U	NA
Antimony (Dissolved)	ug/L	2 U	2 U	5 U	5 U	NA	5 U	5 U	5 U	NA
Arsenic (Dissolved)	ug/L	5 U	5 U	3.1	NA	NA	10 U	4.3 B	3.5 B	NA
Barium (Dissolved)	ug/L	102	85.6 J	887	870	NA	770	644	706	NA
Beryllium (Dissolved)	ug/L	1 U	1 U	5 U	NA	NA	4 U	4 U	4 U	NA
Cadmium (Dissolved)	ug/L	1 U	1 U	0.38 J	NA	NA	1 U	1 U	1 U	NA
Calcium (Dissolved)	ug/L	79,500	76,700	371,000	NA	NA	380,000	352,000	357,000	NA
Chromium Total (Dissolved)	ug/L	5 U	5 U	50 U	NA	NA	3.8 B	2.2 B	3.1 B	NA
Cobalt (Dissolved)	ug/L	7 U	7 U	50 U	NA	NA	6.1 B	6.5 B	5.6 B	NA
Copper (Dissolved)	ug/L	2 U	2 U	25 U	NA	NA	25 U	25 U	25 U	NA
Cyanide (Dissolved)	ug/L	10 U	10 U	NA	NA	NA	5.5	5	4.7 B	5 U
Iron (Dissolved)	ug/L	16,000	16,900	22,900	21,200 J	831.8	22,100 J	22,400	20,300	NA
Lead (Dissolved)	ug/L	3 U	3 U	3 U	3 U	NA	3 U	3 U	3 U	NA
Magnesium (Dissolved)	ug/L	40,700	38,500	124,000	121,000	NA	118,000	116,000	113,000	NA
Manganese (Dissolved)	ug/L	569	665	1,030	838 J	926.5	795	935	842	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Green Point Landfill X-1A 14 - 17 12/07/07	Green Point Landfill X-1A 14 - 17 03/12/08	Green Point Landfill X-1B 25 - 28 07/29/95	Green Point Landfill X-1B 25 - 28 06/10/96	Green Point Landfill X-1B 25 - 28 03/09/97	Green Point Landfill X-1B 25 - 28 05/24/00	Green Point Landfill X-1B 25 - 28 06/20/01	Green Point Landfill X-1B 25 - 28 06/25/02	Green Point Landfill X-1B 25 - 28 06/17/03
Inorganics-Dissolved (Cont'd.)										
Mercury (Dissolved)	ug/L	0.2 U	0.2 U	0.2 UJ	NA	NA	0.2 U	NA	0.2 UJ	NA
Nickel (Dissolved)	ug/L	8 J	3.4 J	50 U	50 U	NA	29.6 B	32.4 B	29.7 B	NA
Potassium (Dissolved)	ug/L	53,100 J	39,500	53,700	NA	NA	40,500	37,800 J	34,700 J	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 U	5 U	5 U	NA	NA	5 U	5 U	5 U	NA
Silver (Dissolved)	ug/L	0.2 U	0.2 U	0.5 U	NA	NA	5 U	5 U	5 U	NA
Sodium (Dissolved)	ug/L	197,000	136,000	758,000	831,000	NA	858,000	793,000	777,000	NA
Thallium (Dissolved)	ug/L	1 U	1 U	4 UJ*	NA	NA	6.6 B	6.4 B	8.2 BJ	NA
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	4 U	4 U	20 U	NA	NA	2.4 B	1.7 B	2 B	NA
Zinc (Dissolved)	ug/L	20 U	6.8 J	143	42.5 U	NA	20 U	32.5	21.2	NA
Miscellaneous										
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	33,000	27,000	NA	NA	NA	24,000	59,000	31,000	7,000
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	ug/L	166,000	90,800	NA	NA	NA	1,440,000	1,280,000	1,410,000 J	NA
Estimated Un-ionized Ammonia	ug/L	2,376	1,944	NA	NA	NA	1,728	4,248	2,232	504
Ferrous Iron	ug/L	NA	NA	NA	380	870	6,100	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	21,000	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	790	NA	NA	NA
Nitrate (as N)	ug/L	100 U	100 U	NA	80 U	80 U	10,000 U	500 U	500 U	NA
Nitrite (as N)	ug/L	100 U	100 U	NA	70 U	70 U	10,000 U	R	530 B	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	50 U	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	7	7.1	NA	NA	NA	6.6	7.4	6.9	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	1,000 U	1,000 U	NA	5,000 U	5,000 U	51,200	31,700	30,200	NA
Sulfide	ug/L	NA	NA	NA	200 U	2,000	2,000 U	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	900,000	750,000	NA	NA	NA	2,600,000	3,000,000	3,700,000	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	105,000	105,000	120,000	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	Green Point Landfill X-1A 14 - 17 12/07/07	Green Point Landfill X-1A 14 - 17 03/12/08	Green Point Landfill X-1B 25 - 28 07/29/95	Green Point Landfill X-1B 25 - 28 06/10/96	Green Point Landfill X-1B 25 - 28 03/09/97	Green Point Landfill X-1B 25 - 28 05/24/00	Green Point Landfill X-1B 25 - 28 06/20/01	Green Point Landfill X-1B 25 - 28 06/25/02	Green Point Landfill X-1B 25 - 28 06/17/03
Gases										
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	367,000	334,900	298,800	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	400 U	400 U	400 U	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	500 U	240	350	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	50.554	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	0.07	NA	NA	NA
Methane	ug/L	NA	NA	NA	16,000	14,250	7,600	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	2,700	4,800	5,040	NA	NA	NA

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Green Point Landfill X-1B 25 - 28 06/18/03	Green Point Landfill X-1B 25 - 28 05/25/04	Green Point Landfill X-1B 25 - 28 06/21/05	Green Point Landfill X-1B 25 - 28 12/12/06	Green Point Landfill X-1B 25 - 28 12/06/07	Green Point Landfill X-1B 25 - 28 03/12/08	Green Point Landfill X-1CR 2 - 12 07/29/95	Green Point Landfill X-1CR 2 - 12 06/10/96	Green Point Landfill X-1CR 2 - 12 03/11/97
Inorganics										
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	NA	NA	NA	NA	NA	5.00 U	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	475	43,300
Lead	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	41.0	2,200
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved										
Aluminum (Dissolved)	ug/L	100 U	100 U	200 U	200 U	200 U	200 U	NA	100 U	NA
Antimony (Dissolved)	ug/L	5 U	5 U	0.48 B	2 U	2 U	2 U	5 U	5 U	NA
Arsenic (Dissolved)	ug/L	10 U	10 U	6.8	5 U	5 U	5 U	2.2	NA	NA
Barium (Dissolved)	ug/L	525	350	657	776	482	740	531	507	NA
Beryllium (Dissolved)	ug/L	4 U	4 U	1 U	1 U	1 U	1 U	5 U	NA	NA
Cadmium (Dissolved)	ug/L	0.33 B	1 U	0.5 U	1 U	1 U	1 U	0.2 UJ	NA	NA
Calcium (Dissolved)	ug/L	309,000	270,000	305,000	291,000	193,000	280,000	NA	NA	NA
Chromium Total (Dissolved)	ug/L	1.9 B	5 U	10 U	5 U	5 U	5 U	50 U	NA	NA
Cobalt (Dissolved)	ug/L	4 B	5.7 B	6.1	6.6 J	7 U	5.2 J	50 U	NA	NA
Copper (Dissolved)	ug/L	25 U	25 U	0.86 B	0.89 J	7	2 U	25 U	NA	NA
Cyanide (Dissolved)	ug/L	NA	5 U	3 B	18	10 U	10 U	NA	NA	NA
Iron (Dissolved)	ug/L	19,200	14,000	21,500	21,700	6,040	22,300	NA	30,700 J	42,800
Lead (Dissolved)	ug/L	3 U	3 U	1 U	3 U	3 U	3 U	3 U	3 U	NA
Magnesium (Dissolved)	ug/L	105,000	93,300	95,500	85,700	54,200	86,900	NA	105,000	NA
Manganese (Dissolved)	ug/L	1,290	1,330	1,100	1,170	607	1,040	NA	1,660 J	2,200
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

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Inorganics-Dissolved (Cont'd.)										
Mercury (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA
Nickel (Dissolved)	ug/L	17.2 B	12 B	28.1	25.7	14.2 J	19.8 J	50 U	50 U	NA
Potassium (Dissolved)	ug/L	32,400	23,200	34,000 J	34,500	31,600 J	35,500	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 U	5 U	19.5	5 U	5 U	5 U	5 U	NA	NA
Silver (Dissolved)	ug/L	5 U	5 U	0.5 U	R	0.2 U	0.2 U	0.5 U	NA	NA
Sodium (Dissolved)	ug/L	537,000	355,000	678,000	716,000	459,000	750,000	NA	410,000	NA
Thallium (Dissolved)	ug/L	10 U	10 U	1 U	1 U	1 U	1 U	8 UJ*	NA	NA
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	100 U	NA	NA
Vanadium (Dissolved)	ug/L	50 U	50 U	25 U	4 U	4 U	1.4 J	20 U	NA	NA
Zinc (Dissolved)	ug/L	14.9 B	20 U	27.1	10 J	614	14.4 J	20 U	20 U	NA
Miscellaneous										
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	22,000	46,000	2,500	22,000	42,000	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	ug/L	817,000	571,000	1,200,000	1,100,000	984,000	1,050,000	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	1,584	3,312	180	1,584	3,024	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	20 U	19,000
Hardness	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	500 U	500 U	100 U	100 U	100 U	100 U	NA	80 U	90
Nitrite (as N)	ug/L	500 U	500 U	1,000 U	360 J	100 U	100 U	NA	70 U	70 U
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	7.8	7.2	6.8	7 J	6.9	6.9	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	217,000 J	277,000	13,200	840 J	8,900	1,400 U	NA	160,000	6,100
Sulfide	ug/L	NA	NA	NA	NA	NA	NA	500 U	200 U	1,000
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	2,500,000	2,200,000	2,900,000	3,500,000	2,600,000	3,000,000	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA	NA	3,000	45,900
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

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Gases										
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA	NA	287,400	250,800
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	400 U	400 U
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA	500 U	300
Ethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA	NA	19,200	17,150
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	1,900	3,000

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Green Point Landfill X-1CR 2 - 12 05/24/00	Green Point Landfill X-1CR2 48.2 - 53.2 07/29/95	Green Point Landfill X-1CR2 48.2 - 53.2 06/11/96	Green Point Landfill X-1CR2 48.2 - 53.2 03/12/97	Green Point Landfill X-1CR2 48.2 - 53.2 05/24/00	Green Point Landfill X-1CR2 48.2 - 53.2 06/26/02	Green Point Landfill X-1CR2 48.2 - 53.2 06/19/03	Green Point Landfill X-1CR2 48.2 - 53.2 05/27/04	Green Point Landfill X-1CR2 48.2 - 53.2 06/21/05
Inorganics										
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	5.00 U	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	498,000	290	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	8,340	20.0	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved										
Aluminum (Dissolved)	ug/L	NA	100 U	188	NA	NA	100 U	84,400	106 UJ	200 U
Antimony (Dissolved)	ug/L	NA	5 U	5 U	NA	NA	5 U	5 U	5 U	0.22 B
Arsenic (Dissolved)	ug/L	NA	2.4	NA	NA	NA	3.7 B	27.1	10 U	1.8 B
Barium (Dissolved)	ug/L	NA	200 U	200 U	NA	NA	34.3 B	534 J	30.2	23.5
Beryllium (Dissolved)	ug/L	NA	5 U	NA	NA	NA	4 U	3.8 B	4 U	1 U
Cadmium (Dissolved)	ug/L	NA	0.2 UJ	NA	NA	NA	1 U	3.9	0.5	0.78
Calcium (Dissolved)	ug/L	NA	75,400	NA	NA	NA	68,100	554,000	72,600 J	72,700
Chromium Total (Dissolved)	ug/L	NA	50 U	NA	NA	NA	5 U	180	5 U	2 U
Cobalt (Dissolved)	ug/L	NA	50 U	NA	NA	NA	40 U	50.7	3.4	0.58 B
Copper (Dissolved)	ug/L	NA	25 U	NA	NA	NA	25 U	112	25 U	2.9
Cyanide (Dissolved)	ug/L	NA	NA	NA	NA	NA	5 U	5 U	5 U	10 U
Iron (Dissolved)	ug/L	31,000	100 U	100 U	240	60	100 U	98,000	100 U	229
Lead (Dissolved)	ug/L	NA	6.9	3 U	NA	NA	3 U	57.9	3 U	1 U
Magnesium (Dissolved)	ug/L	NA	5,000 U	23,200	NA	NA	33,300	211,000	34,000 J	34,000
Manganese (Dissolved)	ug/L	1,800	20 U	20 U	30	150	73.8	2,000	22.5 J	1.9
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Green Point Landfill X-1CR 2 - 12 05/24/00	Green Point Landfill X-1CR2 48.2 - 53.2 07/29/95	Green Point Landfill X-1CR2 48.2 - 53.2 06/11/96	Green Point Landfill X-1CR2 48.2 - 53.2 03/12/97	Green Point Landfill X-1CR2 48.2 - 53.2 05/24/00	Green Point Landfill X-1CR2 48.2 - 53.2 06/26/02	Green Point Landfill X-1CR2 48.2 - 53.2 06/19/03	Green Point Landfill X-1CR2 48.2 - 53.2 05/27/04	Green Point Landfill X-1CR2 48.2 - 53.2 06/21/05
Inorganics-Dissolved (Cont'd.)										
Mercury (Dissolved)	ug/L	NA	0.2 UJ	NA	NA	NA	0.2 UJ	0.2 UJ	0.2 U	0.2 U
Nickel (Dissolved)	ug/L	NA	50 U	50 U	NA	NA	40 U	131	40 U	1.8 B
Potassium (Dissolved)	ug/L	NA	18,900	NA	NA	NA	3,310 BJ	28,800	2,710 J	2,710 BJ
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	5 U	NA	NA	NA	5 U	5 U	5 U	2.4
Silver (Dissolved)	ug/L	NA	0.5 U	NA	NA	NA	5 U	5 U	5 U	0.5 U
Sodium (Dissolved)	ug/L	NA	176,000	123,000	NA	NA	125,000	126,000	130,000	131,000
Thallium (Dissolved)	ug/L	NA	2 UJ	NA	NA	NA	10 UJ	10 U	10 U	1 U
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	20 U	NA	NA	NA	50 U	169	50 U	0.6 B
Zinc (Dissolved)	ug/L	NA	20 U	20 U	NA	NA	20 U	534	20 U	10.7
Miscellaneous										
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	NA	NA	NA	600	400	100 B	200 U
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA	NA	162,000	163,000	170,000	160,000
Estimated Un-ionized Ammonia	ug/L	NA	NA	NA	NA	NA	43.2	28.8	7.2 B	14.4 U
Ferrous Iron	ug/L	34,000	NA	20 U	20 U	5,600	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	31,000	NA	NA	NA	32,000	NA	NA	NA	NA
Manganese	ug/L	1,800	NA	NA	NA	830	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	NA	80 U	470	NA	46 B	130 B	430 B	450
Nitrite (as N)	ug/L	NA	NA	70 U	70 U	NA	500 U	170 BJ	500 U	100 U
Nitrogen	ug/L	50 U	NA	NA	NA	210	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA	NA	8	7.9	7.8	7.8
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	540,000	NA	282,000	300,000	240,000	251,000	260,000 J	260,000	245,000
Sulfide	ug/L	2,000 U	NA	200 U	1,000	2,000 U	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	NA	NA	NA	800,000	380,000	750,000	780,000
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	39,000	NA	2,000 U	4,700	20,000	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Green Point Landfill X-1CR 2 - 12 05/24/00	Green Point Landfill X-1CR2 48.2 - 53.2 07/29/95	Green Point Landfill X-1CR2 48.2 - 53.2 06/11/96	Green Point Landfill X-1CR2 48.2 - 53.2 03/12/97	Green Point Landfill X-1CR2 48.2 - 53.2 05/24/00	Green Point Landfill X-1CR2 48.2 - 53.2 06/26/02	Green Point Landfill X-1CR2 48.2 - 53.2 06/19/03	Green Point Landfill X-1CR2 48.2 - 53.2 05/27/04	Green Point Landfill X-1CR2 48.2 - 53.2 06/21/05
Gases										
Carbon Dioxide by Headspace	ug/L	142,900	NA	2,200 U	2,200	5,620	NA	NA	NA	NA
Carbon monoxide	ug/L	400 U	NA	400 U	400 U	400 U	NA	NA	NA	NA
Dissolved Oxygen	ug/L	340	NA	3,700	2,500	1,620	NA	NA	NA	NA
Ethane	ug/L	33.585	NA	NA	NA	0.023	NA	NA	NA	NA
Ethene	ug/L	0.169	NA	NA	NA	0.013	NA	NA	NA	NA
Methane	ug/L	16,200	NA	200 U	70 U	3.569	NA	NA	NA	NA
Nitrogen	ug/L	4,020	NA	20,000	19,300	16,800	NA	NA	NA	NA

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Green Point Landfill X-1CR2 48.2 - 53.2 12/12/06	Green Point Landfill X-1CR2 48.2 - 53.2 12/07/07	Green Point Landfill X-1CR2 48.2 - 53.2 03/12/08	Green Point Landfill X-3AR 7.6 - 17.6 06/20/95	Green Point Landfill X-3AR 7.6 - 17.6 07/14/95	Green Point Landfill X-3AR 7.6 - 17.6 07/31/95	Green Point Landfill X-3AR 7.6 - 17.6 06/06/96	Green Point Landfill X-3BR 31 - 36 06/20/95	Green Point Landfill X-3BR 31 - 36 07/15/95
Inorganics										
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	NA	NA	5.00 U	NA	5.00 U	NA	5.00 U	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	366,000	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	2,890	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved										
Aluminum (Dissolved)	ug/L	200 U	200 U	200 U	519	NA	NA	100 U [100 U]	180	NA
Antimony (Dissolved)	ug/L	2 U	2 U	2 U	6.4	NA	9	5 U [5 U]	5 U	NA
Arsenic (Dissolved)	ug/L	5 U	5 U	3.3 J	31.2	NA	29.7	NA	1.3	NA
Barium (Dissolved)	ug/L	25.9 J	25.2 J	24.9 J	9,530	NA	11,800	10,400 [10,900]	301	NA
Beryllium (Dissolved)	ug/L	1 U	1 U	1 U	5 U	NA	5 U	NA	5 U	NA
Cadmium (Dissolved)	ug/L	2.4	0.82 J	1 U	0.2 U	NA	0.2 UJ	NA	0.38	NA
Calcium (Dissolved)	ug/L	67,000	75,800	70,600	2,250,000 J	NA	NA	NA	111,000 J	NA
Chromium Total (Dissolved)	ug/L	5 U	5 U	5 U	50 U	NA	50 U	NA	50 U	NA
Cobalt (Dissolved)	ug/L	7 U	7 U	7 U	50 U	NA	50 U	NA	50 U	NA
Copper (Dissolved)	ug/L	4.6	3.1	0.86 J	25 U	NA	28	NA	25 U	NA
Cyanide (Dissolved)	ug/L	10 U	10 U	10 U	NA	NA	NA	NA	NA	NA
Iron (Dissolved)	ug/L	100 U	100 U	100 U	320,000	NA	NA	344,000 [372,000]	1,100	NA
Lead (Dissolved)	ug/L	3 U	3 U	3 U	3 UJ	NA	3 U	3 U [3 U]	3 UJ	NA
Magnesium (Dissolved)	ug/L	31,900	37,000	34,100	1,640,000	NA	NA	1,660,000 [1,720,000]	46,800	NA
Manganese (Dissolved)	ug/L	23.4	40.3	2.3 J	3,670	NA	NA	3,220 [3,170]	317	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Green Point Landfill X-1CR2 48.2 - 53.2 12/12/06	Green Point Landfill X-1CR2 48.2 - 53.2 12/07/07	Green Point Landfill X-1CR2 48.2 - 53.2 03/12/08	Green Point Landfill X-3AR 7.6 - 17.6 06/20/95	Green Point Landfill X-3AR 7.6 - 17.6 07/14/95	Green Point Landfill X-3AR 7.6 - 17.6 07/31/95	Green Point Landfill X-3AR 7.6 - 17.6 06/06/96	Green Point Landfill X-3BR 31 - 36 06/20/95	Green Point Landfill X-3BR 31 - 36 07/15/95
Inorganics-Dissolved (Cont'd.)										
Mercury (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 UJ	NA	0.2 U	NA	0.2 UJ	NA
Nickel (Dissolved)	ug/L	20 U	20 U	20 U	55.7	NA	62	51.4 [53.4]	50 U	NA
Potassium (Dissolved)	ug/L	2,520	3,000 J	2,580	331,000	NA	NA	NA	13,400	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 U	5 U	5 U	25 UJ*	NA	10 U*	NA	5 UJ	NA
Silver (Dissolved)	ug/L	R	0.2 U	0.2 U	0.5 U	NA	0.5 U	NA	0.5 U	NA
Sodium (Dissolved)	ug/L	129,000	140,000	130,000	1,160,000	NA	NA	1,280,000 [1,340,000]	50,100	NA
Thallium (Dissolved)	ug/L	1 U	1 U	1 U	4 UJ*	NA	16 UJ*	NA	2 UJ	NA
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	200 U*	NA	NA	NA
Vanadium (Dissolved)	ug/L	4 U	4 U	4 U	20 U	NA	44	NA	20 U	NA
Zinc (Dissolved)	ug/L	97.9	18.4 J	16.2 J	R	NA	20 U	20 U [20 U]	214	NA
Miscellaneous										
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	10,000 U	NA	NA	NA	10,000 U
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	200 U	200 U	200 U	NA	380,000 J	NA	NA	NA	1,000 U
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	54,000	NA	NA	NA	11,000
Bromide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	1,100,000	NA	NA	NA	23,000
Chloride	ug/L	152,000	157,000	156,000	NA	9,900,000	NA	NA	NA	230,000
Estimated Un-ionized Ammonia	ug/L	14.4 U	14.4 U	14.4 U	NA	27,360 J	NA	NA	NA	72 U
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	342,000	NA	NA
Hardness	ug/L	NA	NA	NA	NA	5,000 U	NA	NA	NA	570,000
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	150	100	200	NA	NA	NA	80 U	NA	NA
Nitrite (as N)	ug/L	33 J	100 U	100 U	NA	NA	NA	70 U	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	7.8 J	7.6	7.8	NA	NA	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	140	NA	NA	NA	25
Phosphorus	ug/L	NA	NA	NA	NA	100 U	NA	NA	NA	200
Sulfate	ug/L	230,000	251,000	249,000	NA	NA	NA	5,000 U	NA	NA
Sulfide	ug/L	NA	NA	NA	NA	NA	500 U	200 U	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	760,000	720,000	730,000	NA	26,000,000	NA	NA	NA	1,000,000
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA	154,000	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	470,000	NA	NA	NA	33,000

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Green Point Landfill X-1CR2 48.2 - 53.2 12/12/06	Green Point Landfill X-1CR2 48.2 - 53.2 12/07/07	Green Point Landfill X-1CR2 48.2 - 53.2 03/12/08	Green Point Landfill X-3AR 7.6 - 17.6 06/20/95	Green Point Landfill X-3AR 7.6 - 17.6 07/14/95	Green Point Landfill X-3AR 7.6 - 17.6 07/31/95	Green Point Landfill X-3AR 7.6 - 17.6 06/06/96	Green Point Landfill X-3BR 31 - 36 06/20/95	Green Point Landfill X-3BR 31 - 36 07/15/95
Gases										
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA	477,500	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA	400 U	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA	500 U	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA	7,100	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	4,900	NA	NA

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SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Green Point Landfill X-3BR 31 - 36 06/05/96	Green Point Landfill X-3CAUG 46.5 - 51.5 06/20/95	Green Point Landfill X-3CAUG 46.5 - 51.5 07/14/95	Green Point Landfill X-3CAUG 46.5 - 51.5 06/05/96	Green Point Landfill X-4A 6.2 - 9.2 12/14/06	Green Point Landfill X-4D 40 - 45 01/09/08	Green Point Landfill X-4D 40 - 45 04/01/08	Green Point Landfill X-4D 40 - 45 04/03/08
Inorganics									
Aluminum	ug/L	NA	NA	NA	NA	200 U	200 U	NA	200 U
Antimony	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	2.00 U
Arsenic	ug/L	NA	NA	NA	NA	5.00 U	5.00 U	NA	5.00 U
Barium	ug/L	NA	NA	NA	NA	68.2 J	125	NA	110
Beryllium	ug/L	NA	NA	NA	NA	1.00 U	1.00 U	NA	1.00 U
Cadmium	ug/L	NA	NA	NA	NA	1.00 U	1.00 U	NA	1.00 U
Calcium	ug/L	NA	NA	NA	NA	165,000	172,000	NA	168,000
Chromium Total	ug/L	NA	NA	NA	NA	5.00 U	5.00 U	NA	5.00 U
Cobalt	ug/L	NA	NA	NA	NA	7.00 U	7.00 U	NA	7.00 U
Copper	ug/L	NA	NA	NA	NA	0.920 J	2.00 U	NA	2.00 U
Cyanide (total)	ug/L	NA	5.00 U	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	12,400	NA	NA	4,500	45.0 J	2,250	NA	1,640
Lead	ug/L	NA	NA	NA	NA	3.00 U	3.00 U	NA	3.00 U
Magnesium	ug/L	NA	NA	NA	NA	32,700	75,000	NA	69,300
Manganese	ug/L	349	NA	NA	65.0	15.0 U	327	NA	263
Mercury	ug/L	NA	NA	NA	NA	0.110 J	0.200 U	NA	0.200 U
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	20.0 U	20.0 U	NA	20.0 U
Potassium	ug/L	NA	NA	NA	NA	329 J	8,070	NA	7,710 J
Selenium	ug/L	NA	NA	NA	NA	5.00 U	5.00 U	NA	5.00 U
Silver	ug/L	NA	NA	NA	NA	0.200 U	0.200 U	NA	0.200 U
Sodium	ug/L	NA	NA	NA	NA	21,300	733,000	NA	701,000
Thallium	ug/L	NA	NA	NA	NA	1.00 U	1.00 U	NA	1.00 U
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	4.00 U	4.00 U	NA	4.00 U
Zinc	ug/L	NA	NA	NA	NA	11.5 J	20.0 U	NA	20.0 U
Inorganics-Dissolved									
Aluminum (Dissolved)	ug/L	104	129	NA	100 U	200 U	200 U	200 U [200 U]	NA
Antimony (Dissolved)	ug/L	5 U	5 U	NA	5 U	2 U	2 U	2 U [2 U]	NA
Arsenic (Dissolved)	ug/L	NA	16.2	NA	NA	5 U	5 U	5 U [5 U]	NA
Barium (Dissolved)	ug/L	510	236	NA	321	64.8 J	124	112 [111]	NA
Beryllium (Dissolved)	ug/L	NA	5 U	NA	NA	1 U	1 U	1 U [1 U]	NA
Cadmium (Dissolved)	ug/L	NA	0.2 U	NA	NA	1 U	1 U	1 U [1 U]	NA
Calcium (Dissolved)	ug/L	NA	86,400 J	NA	NA	159,000	171,000	179,000 [176,000]	NA
Chromium Total (Dissolved)	ug/L	NA	50 U	NA	NA	5 U	5 U	5 U [5 U]	NA
Cobalt (Dissolved)	ug/L	NA	50 U	NA	NA	7 U	7 U	7 U [7 U]	NA
Copper (Dissolved)	ug/L	NA	25 U	NA	NA	1.2 J	2 U	2 U [0.31 J]	NA
Cyanide (Dissolved)	ug/L	NA	NA	NA	NA	7.9 J	10 U	10 U [10 U]	NA
Iron (Dissolved)	ug/L	12,600	2,360	NA	4,890	100 U	2,080	1,930 [1,780]	NA
Lead (Dissolved)	ug/L	3 U	3 UJ	NA	3 U	3 U	3 U	3 U [3 U]	NA
Magnesium (Dissolved)	ug/L	51,500	28,600	NA	44,400	31,800	74,600	73,600 [72,600]	NA
Manganese (Dissolved)	ug/L	399	74.4	NA	70.4	15 U	318	263 [258]	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Green Point Landfill X-3BR 31 - 36 06/05/96	Green Point Landfill X-3CAUG 46.5 - 51.5 06/20/95	Green Point Landfill X-3CAUG 46.5 - 51.5 07/14/95	Green Point Landfill X-3CAUG 46.5 - 51.5 06/05/96	Green Point Landfill X-4A 6.2 - 9.2 12/14/06	Green Point Landfill X-4D 40 - 45 01/09/08	Green Point Landfill X-4D 40 - 45 04/01/08	Green Point Landfill X-4D 40 - 45 04/03/08
Inorganics-Dissolved (Cont'd.)									
Mercury (Dissolved)	ug/L	NA	0.2 UJ	NA	NA	0.2 U	0.2 U	0.2 U [0.2 U]	NA
Nickel (Dissolved)	ug/L	50 U	50 U	NA	50 U	20 U	20 U	20 U [20 U]	NA
Potassium (Dissolved)	ug/L	NA	5,140	NA	NA	301 J	8,080	8,060 [7,970]	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	5 UJ	NA	NA	5 U	5 U	5 U [5 U]	NA
Silver (Dissolved)	ug/L	NA	0.5 U	NA	NA	0.2 UJ	0.2 U	0.2 U [0.2 U]	NA
Sodium (Dissolved)	ug/L	98,600	142,000	NA	207,000	20,400	718,000	726,000 [708,000]	NA
Thallium (Dissolved)	ug/L	NA	2 UJ	NA	NA	1 U	1 U	1 U [1 U]	NA
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	20 U	NA	NA	4 U	4 U	4 U [4 U]	NA
Zinc (Dissolved)	ug/L	25.1	R	NA	20 U	8.8 J	20 U	20 U [20 U]	NA
Miscellaneous									
Alkalinity, Carbonate	ug/L	NA	NA	10,000 U [20,000 U]	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	2,800 J [1,000 UJ]	NA	200 U	6,900	8,800 [8,100]	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	3,000 J [3,000 J]	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	55,000 [38,000]	NA	NA	NA	NA	NA
Chloride	ug/L	NA	NA	390,000 [330,000]	NA	18,000	1,400,000	1,460,000 [1,460,000]	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	201.6 J [72 UJ]	NA	14.4 U	496.8	633.6 [583.2]	NA
Ferrous Iron	ug/L	7,000	NA	NA	20 U	NA	NA	NA	NA
Hardness	ug/L	NA	NA	510,000 [480,000]	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	80 U	NA	NA	80 U	160	100 U	100 U [100 U]	NA
Nitrite (as N)	ug/L	70 U	NA	NA	70 U	100 U	2,000 U	100 U [100 U]	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA	7.3 J	7.6	7.3 [7.4]	NA
Phenolics (Total)	ug/L	NA	NA	71 [35]	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	100 [100 U]	NA	NA	NA	NA	NA
Sulfate	ug/L	5,000 U	NA	NA	5,000 U	33,800	94,400	118,000 [118,000]	NA
Sulfide	ug/L	200 U	NA	NA	200 U	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	1,000,000 [1,100,000]	NA	570,000	2,300,000	2,500,000 [2,600,000 J]	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	10,400	NA	NA	9,700	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	30,000 [19,000]	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Green Point Landfill X-3BR 31 - 36 06/05/96	Green Point Landfill X-3CAUG 46.5 - 51.5 06/20/95	Green Point Landfill X-3CAUG 46.5 - 51.5 07/14/95	Green Point Landfill X-3CAUG 46.5 - 51.5 06/05/96	Green Point Landfill X-4A 6.2 - 9.2 12/14/06	Green Point Landfill X-4D 40 - 45 01/09/08	Green Point Landfill X-4D 40 - 45 04/01/08	Green Point Landfill X-4D 40 - 45 04/03/08
Gases									
Carbon Dioxide by Headspace	ug/L	110,000	NA	NA	51,700	NA	NA	NA	NA
Carbon monoxide	ug/L	400 U	NA	NA	400 U	NA	NA	NA	NA
Dissolved Oxygen	ug/L	700	NA	NA	500	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methane	ug/L	9,700	NA	NA	2,800	NA	NA	NA	NA
Nitrogen	ug/L	9,300	NA	NA	10,200	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	Green Point Landfill X-4D 40 - 45 06/05/08	Green Point Landfill X-5A 06/21/95	Green Point Landfill X-5A 07/19/95	Green Point Landfill X-5A 06/06/96	Green Point Landfill X-5B 06/21/95	Green Point Landfill X-5B 07/19/95	Green Point Landfill X-5B 06/06/96	Green Point Landfill X-5CR 06/21/95	Green Point Landfill X-5CR 07/19/95
Inorganics										
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	5.00 U	5.00 U	NA	9.20	7.00	NA	5.00 U	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	34,300	NA	NA	3,490	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	644	NA	NA	243	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved										
Aluminum (Dissolved)	ug/L	NA	R	NA	100 U	R	NA	127	R	NA
Antimony (Dissolved)	ug/L	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA
Arsenic (Dissolved)	ug/L	NA	3.1	1.4	NA	2.1	2.6	NA	9.3	NA
Barium (Dissolved)	ug/L	NA	784	665	763	844	1,270	720	200 U	NA
Beryllium (Dissolved)	ug/L	NA	5 U	5 U	NA	5 U	5 U	NA	5 U	NA
Cadmium (Dissolved)	ug/L	NA	0.2 U	0.2 UJ	NA	0.2 U	0.2 UJ	NA	0.2 U	NA
Calcium (Dissolved)	ug/L	NA	174,000	NA	NA	29,900	NA	NA	55,600	NA
Chromium Total (Dissolved)	ug/L	NA	50 U	50 U	NA	50 U	50 U	NA	50 U	NA
Cobalt (Dissolved)	ug/L	NA	50 U	50 U	NA	50 U	50 U	NA	50 U	NA
Copper (Dissolved)	ug/L	NA	25 U	25 U	NA	25 U	25 U	NA	25 U	NA
Cyanide (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron (Dissolved)	ug/L	NA	27,800	NA	37,000	2,720	NA	4,090	100 U	NA
Lead (Dissolved)	ug/L	NA	3 UJ	3 U	3 U	3 UJ	3 U	3 U	3 UJ	NA
Magnesium (Dissolved)	ug/L	NA	74,100	NA	69,900	58,100	NA	53,600	29,700	NA
Manganese (Dissolved)	ug/L	NA	482	NA	681	291	NA	278	53.2	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	Green Point Landfill X-4D 40 - 45 06/05/08	Green Point Landfill X-5A 06/21/95	Green Point Landfill X-5A 07/19/95	Green Point Landfill X-5A 06/06/96	Green Point Landfill X-5B 06/21/95	Green Point Landfill X-5B 07/19/95	Green Point Landfill X-5B 06/06/96	Green Point Landfill X-5CR 06/21/95	Green Point Landfill X-5CR 07/19/95
Inorganics-Dissolved (Cont'd.)										
Mercury (Dissolved)	ug/L	NA	0.2 UJ	0.2 U	NA	0.2 UJ	0.2 U	NA	0.2 UJ	NA
Nickel (Dissolved)	ug/L	NA	50 U	50 U	50 U	50.9	55	50 U	50 U	NA
Potassium (Dissolved)	ug/L	NA	81,600	NA	NA	390,000	NA	NA	5,000 U	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	5 UJ	5 U	NA	5 UJ	5 U	NA	5 UJ	NA
Silver (Dissolved)	ug/L	NA	0.5 U	0.5 U	NA	0.5 U	0.5 U	NA	0.5 U	NA
Sodium (Dissolved)	ug/L	NA	228,000	NA	201,000	897,000	NA	786,000	86,700	NA
Thallium (Dissolved)	ug/L	NA	2 UJ	4 UJ*	NA	4 UJ	8 UJ*	NA	2 UJ	NA
Tin (Dissolved)	ug/L	NA	NA	100 U	NA	NA	100 U	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	20 U	20 U	NA	20 U	20 U	NA	20 U	NA
Zinc (Dissolved)	ug/L	NA	49	148 J	20 U	66.2	20 U	20 U	52.7	NA
Miscellaneous										
Alkalinity, Carbonate	ug/L	NA	NA	5,000 U	NA	NA	5,000 U	NA	NA	5,000 U
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	1,500,000	NA	NA
Ammonia Nitrogen	ug/L	6,200 [7,320]	NA	1,000 U	NA	NA	4,800	NA	NA	1,700
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	10,000	NA	NA	30,000	34,000	NA	3,000
Bromide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	180,000	NA	NA	680,000	NA	NA	10,000
Chloride	ug/L	NA	NA	840,000	NA	NA	1,600,000	NA	NA	59,000
Estimated Un-ionized Ammonia	ug/L	446.4 [527.04]	NA	72 U	NA	NA	345.6	NA	NA	122.4
Ferrous Iron	ug/L	NA	NA	NA	2,300	NA	NA	840	NA	NA
Hardness	ug/L	NA	NA	840,000	NA	NA	430,000	NA	NA	540,000
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	NA	NA	80 U	NA	NA	80 U	NA	NA
Nitrite (as N)	ug/L	NA	NA	NA	70 U	NA	NA	70 U	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	20 UJ	NA	NA	36	NA	NA	20 UJ
Phosphorus	ug/L	NA	NA	600	NA	NA	400	NA	NA	400
Sulfate	ug/L	NA	NA	NA	5,000 U	NA	NA	7,600	NA	NA
Sulfide	ug/L	NA	NA	500 U	200 U	NA	500 U	200 U	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	3,300,000 [2,820,000]	NA	2,400,000	NA	NA	4,500,000	NA	NA	860,000
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	35,500	NA	NA	171,000	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	56,000	NA	NA	4,000 U	10,000 U	NA	28,000

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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	Green Point Landfill X-4D 40 - 45 06/05/08	Green Point Landfill X-5A 06/21/95	Green Point Landfill X-5A 07/19/95	Green Point Landfill X-5A 06/06/96	Green Point Landfill X-5B 06/21/95	Green Point Landfill X-5B 07/19/95	Green Point Landfill X-5B 06/06/96	Green Point Landfill X-5CR 06/21/95	Green Point Landfill X-5CR 07/19/95
Gases										
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	286,400	NA	NA	77,700	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	400 U	NA	NA	400 U	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	500 U	NA	NA	500 U	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	16,000	NA	NA	24,500	NA	NA
Nitrogen	ug/L	NA	NA	NA	1,400	NA	NA	800	NA	NA

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	Green Point Landfill X-5CR 06/05/96	Green Point Landfill X-6B 09/26/95	Green Point Landfill X-7A 15.6 - 18.6 06/20/95	Green Point Landfill X-7A 15.6 - 18.6 06/12/96	Green Point Landfill X-7A 15.6 - 18.6 03/11/97	Green Point Landfill X-7BR 22 - 27 06/20/95	Green Point Landfill X-7BR 22 - 27 07/19/95	Green Point Landfill X-7BR 22 - 27 06/05/96	Green Point Landfill X-7BR 22 - 27 03/11/97
Inorganics										
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	5.70	8.70	NA	NA	5.00 U	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	73,400	25,000,000	NA	NA	127,000	73,300
Lead	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	470	198,000	NA	NA	4,160	3,700
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved										
Aluminum (Dissolved)	ug/L	100 U	1,890 J	212	223	NA	246	NA	114	NA
Antimony (Dissolved)	ug/L	5 U	19	7.9	11.1	NA	5 U	NA	5 U	NA
Arsenic (Dissolved)	ug/L	NA	12.4	6	NA	NA	1.6	NA	NA	NA
Barium (Dissolved)	ug/L	200 U	409	762	575	NA	3,460	NA	3,470	NA
Beryllium (Dissolved)	ug/L	NA	5 U	5 U	NA	NA	5 U	NA	NA	NA
Cadmium (Dissolved)	ug/L	NA	0.27 J	0.2 U	NA	NA	0.2 U	NA	NA	NA
Calcium (Dissolved)	ug/L	NA	77,200	101,000 J	NA	NA	2,970,000 J	NA	NA	NA
Chromium Total (Dissolved)	ug/L	NA	50 U	50 U	NA	NA	50 U	NA	NA	NA
Cobalt (Dissolved)	ug/L	NA	50 U	50 U	NA	NA	50 U	NA	NA	NA
Copper (Dissolved)	ug/L	NA	25 U	25 U	NA	NA	25 U	NA	NA	NA
Cyanide (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron (Dissolved)	ug/L	100 U	6,450	29,500	23,300 J	680	130,000	NA	140,000	114,000
Lead (Dissolved)	ug/L	3 U	8.9	3 UJ	3 U	NA	3 UJ	NA	3 U	NA
Magnesium (Dissolved)	ug/L	44,400	66,700	168,000	222,000	NA	525,000	NA	624,000	NA
Manganese (Dissolved)	ug/L	71.7	294	286	193	80	4,660	NA	4,540	3,700
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	Green Point Landfill X-5CR 06/05/96	Green Point Landfill X-6B 09/26/95	Green Point Landfill X-7A 15.6 - 18.6 06/20/95	Green Point Landfill X-7A 15.6 - 18.6 06/12/96	Green Point Landfill X-7A 15.6 - 18.6 03/11/97	Green Point Landfill X-7BR 22 - 27 06/20/95	Green Point Landfill X-7BR 22 - 27 07/19/95	Green Point Landfill X-7BR 22 - 27 06/05/96	Green Point Landfill X-7BR 22 - 27 03/11/97
Inorganics-Dissolved (Cont'd.)										
Mercury (Dissolved)	ug/L	NA	0.2 U	0.2 UJ	NA	NA	0.2 UJ	NA	NA	NA
Nickel (Dissolved)	ug/L	50 U	94.1	147	173	NA	50 U	NA	50 U	NA
Potassium (Dissolved)	ug/L	NA	257,000	504,000	NA	NA	10,100	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	5 U	5 UJ	NA	NA	5 UJ	NA	NA	NA
Silver (Dissolved)	ug/L	NA	0.5 U	0.5 U	NA	NA	0.5 U	NA	NA	NA
Sodium (Dissolved)	ug/L	111,000	899,000	1,490,000	1,300,000	NA	270,000	NA	303,000	NA
Thallium (Dissolved)	ug/L	NA	8 UJ	4 UJ	NA	NA	2 UJ	NA	NA	NA
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	20 U	20 U	NA	NA	20 U	NA	NA	NA
Zinc (Dissolved)	ug/L	20 U	83	R	R	NA	20 U	NA	20 U	NA
Miscellaneous										
Alkalinity, Carbonate	ug/L	NA	50,000 U	NA	NA	NA	NA	5,000 U	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	2,600,000	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	280,000	NA	NA	NA	NA	60,000	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	64,000	NA	130,000	NA	NA	19,000	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	3,800,000	NA	NA	NA	NA	340,000	NA	NA
Chloride	ug/L	NA	1,400,000	NA	NA	NA	NA	7,200,000	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	20,160	NA	NA	NA	NA	4,320	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	7,200	170,000	NA	NA	819,000	140,000
Hardness	ug/L	NA	3,000,000	NA	NA	NA	NA	11,000,000	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	NA	NA	1,922	80 U	NA	NA	80 U	200
Nitrite (as N)	ug/L	NA	NA	NA	70 U	350 U	NA	NA	70 U	280 U
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	130	NA	NA	NA	NA	20 U	NA	NA
Phosphorus	ug/L	NA	5,800	NA	NA	NA	NA	100 U	NA	NA
Sulfate	ug/L	NA	NA	NA	5,000 U	5,000 U	NA	NA	5,000 U	5,000 U
Sulfide	ug/L	NA	NA	NA	970	1,000	NA	NA	200 U	200
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	5,300,000	NA	NA	NA	NA	16,000,000	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	354,000	480,000	NA	NA	24,700	29,600
Total Suspended Solids (TSS)	ug/L	NA	47,000,000	NA	1,200,000	NA	NA	290,000	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	Green Point Landfill X-5CR 06/05/96	Green Point Landfill X-6B 09/26/95	Green Point Landfill X-7A 15.6 - 18.6 06/20/95	Green Point Landfill X-7A 15.6 - 18.6 06/12/96	Green Point Landfill X-7A 15.6 - 18.6 03/11/97	Green Point Landfill X-7BR 22 - 27 06/20/95	Green Point Landfill X-7BR 22 - 27 07/19/95	Green Point Landfill X-7BR 22 - 27 06/05/96	Green Point Landfill X-7BR 22 - 27 03/11/97
Gases										
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	719,100	668,000	NA	NA	304,800	390,100
Carbon monoxide	ug/L	NA	NA	NA	400 U	400 U	NA	NA	400 U	400 U
Dissolved Oxygen	ug/L	NA	NA	NA	500 U	150 U	NA	NA	500 U	400
Ethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	7,800	8,670	NA	NA	15,500	13,580
Nitrogen	ug/L	NA	NA	NA	3,500	2,100	NA	NA	4,000	3,800

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Green Point Landfill X-7CAUG 34 - 39 06/21/95	Green Point Landfill X-7CAUG 34 - 39 07/19/95	Green Point Landfill X-7CAUG 34 - 39 06/05/96	Green Point Landfill X-7CAUG 34 - 39 03/09/97	Green Point Landfill X-7DAUG 46 - 51 06/20/95	Green Point Landfill X-7DAUG 46 - 51 07/19/95	Green Point Landfill X-7DAUG 46 - 51 06/05/96	Green Point Landfill X-7DAUG 46 - 51 03/11/97	Green Point Landfill X-9D 42.5 - 47.5 01/08/08
Inorganics										
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	200 U
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	2.00 U
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5.00 U
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	94.2 J
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1.00 U
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1.00 U
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	200,000
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5.00 U
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	7.00 U
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	2.00 U
Cyanide (total)	ug/L	5.00 U	NA	NA	NA	5.00 U	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	12,300	11,800	NA	NA	8,580	7,900 [7,700]	3,640
Lead	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	3.00 U
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	81,100
Manganese	ug/L	NA	NA	302	275	NA	NA	84.2	80.0 [80.0]	186
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	0.200 U
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	20.0 U
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	8,070
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5.00 U
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	0.200 U
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	717,000
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1.00 U
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	4.00 U
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	8.60 J
Inorganics-Dissolved										
Aluminum (Dissolved)	ug/L	R	NA	100 U	NA	144	NA	100 U	NA	200 U
Antimony (Dissolved)	ug/L	5 U	NA	5 U	NA	5 U	NA	5 U	NA	2 U
Arsenic (Dissolved)	ug/L	10.6	NA	NA	NA	5.3	NA	NA	NA	5 U
Barium (Dissolved)	ug/L	404	NA	574	NA	200 U	NA	445	NA	87.8 J
Beryllium (Dissolved)	ug/L	5 U	NA	NA	NA	5 U	NA	NA	NA	1 U
Cadmium (Dissolved)	ug/L	0.4	NA	NA	NA	0.2	NA	NA	NA	1 U
Calcium (Dissolved)	ug/L	109,000	NA	NA	NA	53,600 J	NA	NA	NA	188,000
Chromium Total (Dissolved)	ug/L	50 U	NA	NA	NA	50 U	NA	NA	NA	5 U
Cobalt (Dissolved)	ug/L	50 U	NA	NA	NA	50 U	NA	NA	NA	7 U
Copper (Dissolved)	ug/L	25 U	NA	NA	NA	25 U	NA	NA	NA	2 U
Cyanide (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	10 U
Iron (Dissolved)	ug/L	5,260	NA	11,000	11,780	734	NA	9,830	8,400 [8,200]	3,370
Lead (Dissolved)	ug/L	3 UJ	NA	3 U	NA	3 UJ	NA	3 U	NA	3 U
Magnesium (Dissolved)	ug/L	29,500	NA	41,200	NA	13,700	NA	40,400	NA	75,900
Manganese (Dissolved)	ug/L	266	NA	302	278.2	71.4	NA	105	90 [90]	173
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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INORGANIC COMPOUNDS

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Green Point Landfill X-7CAUG 34 - 39 06/21/95	Green Point Landfill X-7CAUG 34 - 39 07/19/95	Green Point Landfill X-7CAUG 34 - 39 06/05/96	Green Point Landfill X-7CAUG 34 - 39 03/09/97	Green Point Landfill X-7DAUG 46 - 51 06/20/95	Green Point Landfill X-7DAUG 46 - 51 07/19/95	Green Point Landfill X-7DAUG 46 - 51 06/05/96	Green Point Landfill X-7DAUG 46 - 51 03/11/97	Green Point Landfill X-9D 42.5 - 47.5 01/08/08
Inorganics-Dissolved (Cont'd.)										
Mercury (Dissolved)	ug/L	0.2 UJ	NA	NA	NA	0.2 UJ	NA	NA	NA	0.2 U
Nickel (Dissolved)	ug/L	50 U	NA	50 U	NA	50 U	NA	50 U	NA	20 U
Potassium (Dissolved)	ug/L	5,000 U	NA	NA	NA	12,600	NA	NA	NA	7,390
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 UJ	NA	NA	NA	5 UJ	NA	NA	NA	5 U
Silver (Dissolved)	ug/L	0.5 U	NA	NA	NA	0.5 U	NA	NA	NA	0.2 U
Sodium (Dissolved)	ug/L	64,300	NA	103,000	NA	38,000	NA	201,000	NA	634,000
Thallium (Dissolved)	ug/L	2 UJ	NA	NA	NA	2 UJ	NA	NA	NA	1 U
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	20 U	NA	NA	NA	20 U	NA	NA	NA	4 U
Zinc (Dissolved)	ug/L	71.4	NA	40.8	NA	R	NA	20 U	NA	20 U
Miscellaneous										
Alkalinity, Carbonate	ug/L	NA	5,000 U	NA	NA	NA	5,000 U	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	34,000	NA	NA	NA	3,000	NA	NA	8,500
Biochemical Oxygen Demand (BOD)	ug/L	NA	15,000	NA	NA	NA	10,000	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	29,000	NA	NA	NA	10,000 U	NA	NA	NA
Chloride	ug/L	NA	220,000	NA	NA	NA	340,000	NA	NA	1,370,000
Estimated Un-ionized Ammonia	ug/L	NA	2,448	NA	NA	NA	216	NA	NA	612
Ferrous Iron	ug/L	NA	NA	5,700	10,800	NA	NA	20 U	6,800 [6,400]	NA
Hardness	ug/L	NA	500,000	NA	NA	NA	460,000	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	NA	80 U	80 U	NA	NA	80 U	170 [98]	100 U
Nitrite (as N)	ug/L	NA	NA	70 U	70 U	NA	NA	70 U	70 U [70 U]	100 U
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA	NA	NA	NA	NA	7.4
Phenolics (Total)	ug/L	NA	20 U	NA	NA	NA	20 U	NA	NA	NA
Phosphorus	ug/L	NA	200	NA	NA	NA	100 U	NA	NA	NA
Sulfate	ug/L	NA	NA	5,000 U	5,000 U	NA	NA	5,700	5,000 U [5,000 U]	194,000
Sulfide	ug/L	NA	NA	200 U	1,600	NA	NA	200 U	1,000 [600]	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	900,000	NA	NA	NA	1,300,000	NA	NA	2,400,000
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	8,000	96,400	NA	NA	8,900	8,000 [8,300]	NA
Total Suspended Solids (TSS)	ug/L	NA	8,000	NA	NA	NA	4,000 U	NA	NA	NA

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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

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Gases										
Carbon Dioxide by Headspace	ug/L	NA	NA	108,500	109,600	NA	NA	44,300	48,100 [50,700]	NA
Carbon monoxide	ug/L	NA	NA	400 U	400 U	NA	NA	400 U	400 U [400 U]	NA
Dissolved Oxygen	ug/L	NA	NA	500 U	430	NA	NA	500 U	530 [750]	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	15,400	16,740	NA	NA	3,700	3,970 [4,430]	NA
Nitrogen	ug/L	NA	NA	7,600	9,100	NA	NA	8,200	9,900 [11,700]	NA

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Green Point Landfill X-9D 42.5 - 47.5 03/11/08	Green Point Landfill X-9D 42.5 - 47.5 03/12/08	Green Point Landfill X-9D 42.5 - 47.5 06/05/08	Green Point Landfill X-10A 7.7 - 10.7 06/13/96	Green Point Landfill X-10A 7.7 - 10.7 05/24/00	Green Point Landfill X-10AR2 6 - 16 11/27/01	Green Point Landfill X-10AR2 6 - 16 06/26/02	Green Point Landfill X-10AR2 6 - 16 06/19/03	Green Point Landfill X-10AR2 6 - 16 05/25/04
Inorganics										
Aluminum	ug/L	200 U	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	2.00 U	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	5.00 U	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	80.7 J	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	1.00 U	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	1.00 U	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	181,000	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	5.00 U	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	7.00 U	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	2.00 U	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	3,150	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	3.00 U	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	ug/L	72,200	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	149	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	0.200 U	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	20.0 U	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	6,730	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	5.00 U	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	0.200 U	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	ug/L	635,000	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	1.00 U	NA	NA	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	4.00 U	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	20.0 U	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved										
Aluminum (Dissolved)	ug/L	200 U	NA	NA	100 U	100 U	100 U [100 U]	100 U	100 U	100 U
Antimony (Dissolved)	ug/L	2 U	NA	NA	5 U	5 U	5 U [5 U]	5 U	5 U	5 U
Arsenic (Dissolved)	ug/L	5 U	NA	NA	5 U	10 U	10 U [10 U]	2.2 B	10 U	10 U
Barium (Dissolved)	ug/L	86.6 J	NA	NA	200 U	44.4 B	62.2 B [57.4 B]	50.8 B	100 U	32.7 B
Beryllium (Dissolved)	ug/L	1 U	NA	NA	5 U	4 U	4 U [4 U]	4 U	4 U	4 U
Cadmium (Dissolved)	ug/L	1 U	NA	NA	0.5 U	1 U	1 U [1 U]	1 U	1 U	1 U
Calcium (Dissolved)	ug/L	191,000	NA	NA	117,000	209,000	248,000 [241,000]	202,000	211,000	164,000
Chromium Total (Dissolved)	ug/L	5 U	NA	NA	50 U	5 U	5 U [5 U]	5 U	5 U	5 U
Cobalt (Dissolved)	ug/L	7 U	NA	NA	50 U	40 U	10 U [10 U]	40 U	40 U	40 U
Copper (Dissolved)	ug/L	2 U	NA	NA	25 U	25 U	25 U [25 U]	25 U	25 U	25 U
Cyanide (Dissolved)	ug/L	10 U	NA	NA	5 U	5 U	5 U [5 U]	5 U	5 U	5 U
Iron (Dissolved)	ug/L	3,570	NA	NA	100 UJ	100 UJ	4,740 J [1,080 J]	15,600	13,500	6,050
Lead (Dissolved)	ug/L	3 U	NA	NA	3 U	3 U	3 U [3 U]	3 U	3 U	3 U
Magnesium (Dissolved)	ug/L	76,300	NA	NA	22,400	48,700	74,900 J [73,100 J]	55,700	59,000	45,900
Manganese (Dissolved)	ug/L	155	NA	NA	22.5	152	2,810 [2,710]	2,630	2,470	2,170
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Green Point Landfill X-9D 42.5 - 47.5 03/11/08	Green Point Landfill X-9D 42.5 - 47.5 03/12/08	Green Point Landfill X-9D 42.5 - 47.5 06/05/08	Green Point Landfill X-10A 7.7 - 10.7 06/13/96	Green Point Landfill X-10A 7.7 - 10.7 05/24/00	Green Point Landfill X-10AR2 6 - 16 11/27/01	Green Point Landfill X-10AR2 6 - 16 06/26/02	Green Point Landfill X-10AR2 6 - 16 06/19/03	Green Point Landfill X-10AR2 6 - 16 05/25/04
Inorganics-Dissolved (Cont'd.)										
Mercury (Dissolved)	ug/L	0.2 U	NA	NA	0.2 U	0.2 U	0.2 U	0.2 UJ	0.2 UJ	0.2 U
Nickel (Dissolved)	ug/L	20 U	NA	NA	50 U	40 U	40 U [40 U]	40 U	40 U	4.9 B
Potassium (Dissolved)	ug/L	7,110	NA	NA	9,450	8,910	14,200 [13,700]	12,000 J	11,000	8,290
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 U	NA	NA	5 U	5 U	5 U [5 U]	5 U	5 U	5 U
Silver (Dissolved)	ug/L	0.2 U	NA	NA	0.5 UJ	5 U	5 U [5 U]	5 U	5 U	5 U
Sodium (Dissolved)	ug/L	678,000	NA	NA	24,000	33,700	67,900 [66,100]	48,300	44,000	31,500
Thallium (Dissolved)	ug/L	1 U	NA	NA	2 UJ	7.1 B	10 U [10 U]	5.8 BJ	10 U	10 U
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	4 U	NA	NA	20 U	50 U	20 U [20 U]	50 U	50 U	50 U
Zinc (Dissolved)	ug/L	20 U	NA	NA	86.8 U	105	17.1 B [20 U]	18.1 B	27.7	36.4
Miscellaneous										
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	300,000	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	9,700	NA	5,900	NA	200 U	1,700	1,100	1,000	400
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	2,000	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	ug/L	1,340,000	NA	NA	NA	58,700	47,100	20,900	19,700	5,000
Estimated Un-ionized Ammonia	ug/L	698.4	NA	424.8	NA	14.4 U	122.4	79.2	72	28.8
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	100 U	NA	NA	NA	500 U	100 UJ	500 U	500 U	500 U
Nitrite (as N)	ug/L	100 UJ	NA	NA	NA	500 U	100 UJ	500 U	500 U	500 U
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	7.3	NA	NA	NA	7	8.1	7.9	8.1	7.1
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	185,000	NA	NA	NA	430,000	638,000	492,000	398,000 J	279,000
Sulfide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	2,500,000	NA	2,900,000	NA	910,000	1,300,000	1,100,000	1,100,000	820,000
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	18,000	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Green Point Landfill X-9D 42.5 - 47.5 03/11/08	Green Point Landfill X-9D 42.5 - 47.5 03/12/08	Green Point Landfill X-9D 42.5 - 47.5 06/05/08	Green Point Landfill X-10A 7.7 - 10.7 06/13/96	Green Point Landfill X-10A 7.7 - 10.7 05/24/00	Green Point Landfill X-10AR2 6 - 16 11/27/01	Green Point Landfill X-10AR2 6 - 16 06/26/02	Green Point Landfill X-10AR2 6 - 16 06/19/03	Green Point Landfill X-10AR2 6 - 16 05/25/04
Gases										
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Green Point Landfill X-10AR2 6 - 16 06/22/05	Green Point Landfill X-10AR2 6 - 16 12/13/06	Green Point Landfill X-10AR2 6 - 16 12/03/07	Green Point Landfill X-10AR2 6 - 16 04/02/08	Green Point Landfill X-10BR 26.3 - 31.3 07/24/95	Green Point Landfill X-10BR 26.3 - 31.3 12/15/06	Green Point Landfill X-10BR 26.3 - 31.3 12/04/07	Green Point Landfill X-10BR 26.3 - 31.3 03/12/08	Green Point Landfill X-10CR 36.4 - 41.4 07/24/95
Inorganics										
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	NA	NA	NA	5.00 U	NA	NA	NA	5.00 U
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved										
Aluminum (Dissolved)	ug/L	200 U	200 U [200 U]	200 U [200 U]	200 U	103	200 U	200 U	200 U	100 U
Antimony (Dissolved)	ug/L	2 U	2 U [2 U]	2 U [2 U]	2 U	5 U	2 U	2 U	2 U	5 U
Arsenic (Dissolved)	ug/L	2	5 U [5 U]	5 U [4.2 J]	5 U	32	27.6	29.5	33	20.4
Barium (Dissolved)	ug/L	32.7 J	34.6 J [33.8 J]	43.2 J [42.5 J]	29 J	387	598	570	597	455
Beryllium (Dissolved)	ug/L	1 U	1 U [1 U]	1 U [1 U]	1 U	5 U	1 U	1 U	1 U	5 U
Cadmium (Dissolved)	ug/L	0.5 U	1 U [1 U]	1 U [1 U]	1 U	0.2 U	1 U	1 U	1 U	0.2 U
Calcium (Dissolved)	ug/L	153,000 J	152,000 [148,000]	167,000 [165,000]	117,000	183,000	211,000	219,000	222,000	249,000
Chromium Total (Dissolved)	ug/L	2 U	5 U [5 U]	5 U [5 U]	5 U	50 U	5 U	5 U	5 U	50 U
Cobalt (Dissolved)	ug/L	1.2	7 U [7 U]	7 U [1.8 J]	7 U	50 U	7 U	7 U	7 U	50 U
Copper (Dissolved)	ug/L	0.86 BJ	1.1 J [0.93 J]	2 U [2 U]	0.39 J	25 U	2 U	2 U	2 U	25 U
Cyanide (Dissolved)	ug/L	10 U	10 U [10 U]	10 U [10 U]	10 U	NA	10 U	10 U	10 U	NA
Iron (Dissolved)	ug/L	5,810	460 [602]	8,110 [7,980]	1,070	22,600	30,500	32,700	31,800	19,300
Lead (Dissolved)	ug/L	1 U	3 U [3 U]	3 U [3 U]	3 U	3 U	3 U	3 U	3 U	3 U
Magnesium (Dissolved)	ug/L	42,800	42,800 [41,900]	51,600 [51,000]	37,400	49,300	58,400	62,900	61,600	68,900
Manganese (Dissolved)	ug/L	1,860	2,700 [2,630]	1,630 [1,610]	1,370	457	691	696	716	292
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Green Point Landfill X-10AR2 6 - 16 06/22/05	Green Point Landfill X-10AR2 6 - 16 12/13/06	Green Point Landfill X-10AR2 6 - 16 12/03/07	Green Point Landfill X-10AR2 6 - 16 04/02/08	Green Point Landfill X-10BR 26.3 - 31.3 07/24/95	Green Point Landfill X-10BR 26.3 - 31.3 12/15/06	Green Point Landfill X-10BR 26.3 - 31.3 12/04/07	Green Point Landfill X-10BR 26.3 - 31.3 03/12/08	Green Point Landfill X-10CR 36.4 - 41.4 07/24/95
Inorganics-Dissolved (Cont'd.)										
Mercury (Dissolved)	ug/L	0.2 U	0.2 U [0.2 U]	0.2 U [0.2 U]	0.2 U	0.2 UJ	0.2 U	0.2 U	0.2 U	0.2 UJ
Nickel (Dissolved)	ug/L	7.1	20 U [20 U]	20 U [20 U]	4.1 J	50 U	20 U	20 U	20 U	50 U
Potassium (Dissolved)	ug/L	9,820	8,170 [8,090]	10,700 J [10,600 J]	5,240	5,000 U	2,530	2,620 J	2,480	5,000 U
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	3.6	5 U [5 U]	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	5 U
Silver (Dissolved)	ug/L	0.5 U	R [R]	0.2 U [0.2 U]	0.2 U	0.5 UJ	0.2 UJ	0.2 U	0.2 U	0.5 UJ
Sodium (Dissolved)	ug/L	31,100	23,500 [23,200]	26,700 [26,400]	11,700	149,000	192,000	198,000	186,000	230,000
Thallium (Dissolved)	ug/L	1 U	1 U [1 U]	1 U [1 U]	1 U	2 UJ	1 U	1 U	1 U	2 UJ
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	5 U	4 U [4 U]	4 U [4 U]	4 U	20 U	4 U	4 U	4 U	20 U
Zinc (Dissolved)	ug/L	21.3 J	42.6 [45.8]	20.9 [21.6]	20 U	20 U	20 U	20 U	20 U	50
Miscellaneous										
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	300	200 U [300 U]	300 [200]	100 J	NA	6,000	4,500	4,000	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	ug/L	3,400	1,700 U [1,600 U]	2,800 [2,900]	1,400	NA	505,000	497,000	502,000	NA
Estimated Un-ionized Ammonia	ug/L	21.6	14.4 U [21.6 U]	21.6 [14.4]	7.2 J	NA	432	324	288	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	100 U	100 U [100 U]	100 U [100 U]	100 U	NA	100 U	100 U	100 U	NA
Nitrite (as N)	ug/L	100 U	100 U [100 U]	100 U [100 U]	100 U	NA	300	100 U	100 U	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	7.1	7.1 J [7.1 J]	7.3 [7.4]	7	NA	6.8 J	6.9	6.8	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	189,000	180,000 [179,000]	145,000 [153,000]	128,000	NA	1,000 U	1,000 U	1,000 U	NA
Sulfide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	690,000	750,000 [740,000]	730,000 [720,000]	530,000	NA	1,600,000	1,400,000	1,400,000	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Gases										
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

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Inorganics										
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	NA	NA	5.00 U	NA	NA	NA	5.00 U	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved										
Aluminum (Dissolved)	ug/L	200 U	200 U	200 U	100 U	200 U [200 U]	200 U	200 U	1,110	100 U
Antimony (Dissolved)	ug/L	2 U	2 U	2 U	5 U	2 U [2 U]	2 U	2 U	5 U	5 U
Arsenic (Dissolved)	ug/L	27.8	3.9 J	28.3	20.3	19.8 [19.9]	22.6	18.1	1 U	10 U
Barium (Dissolved)	ug/L	928	55 J	806	294	410 [418]	421	387	200 U	216
Beryllium (Dissolved)	ug/L	1 U	1 U	1 U	5 U	1 U [1 U]	1 U	1 U	5 U	4 U
Cadmium (Dissolved)	ug/L	1 U	2.2	1 U	0.2 U	1 U [1 U]	1 U	1 U	0.35 J	1 U
Calcium (Dissolved)	ug/L	256,000	123,000	233,000	189,000	207,000 [212,000]	233,000	209,000	362,000	397,000
Chromium Total (Dissolved)	ug/L	5 U	5 U	5 U	50 U	5 U [5 U]	5 U	5 U	50 U	1.5 B
Cobalt (Dissolved)	ug/L	2.7 J	7 U	1.9 J	50 U	1.7 J [7 U]	7 U	7 U	50 U	40 U
Copper (Dissolved)	ug/L	1 J	2.2 U	2 U	25 U	0.77 J [0.6 J]	2 U	2 U	25 U	25 U
Cyanide (Dissolved)	ug/L	10 U	10 U	10 U	NA	10 U [10 U]	10 U	10 U	NA	5 U
Iron (Dissolved)	ug/L	19,700	276	18,300	28,400	29,000 [29,700]	34,200	28,700	4,370	6,850 J
Lead (Dissolved)	ug/L	3 U	3 U	3 U	3 U	3 U [3 U]	3 U	3 U	3 U	3 U
Magnesium (Dissolved)	ug/L	101,000	3,300	98,400	49,600	53,400 [54,600]	62,100	54,500	126,000	136,000
Manganese (Dissolved)	ug/L	311	7.8 J	283	629	691 [705]	756	687	807	966
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Green Point Landfill X-10CR 36.4 - 41.4 12/13/06	Green Point Landfill X-10CR 36.4 - 41.4 12/04/07	Green Point Landfill X-10CR 36.4 - 41.4 03/12/08	Green Point Landfill X-10DAUG 22 - 27 07/24/95	Green Point Landfill X-10DAUG 22 - 27 12/14/06	Green Point Landfill X-10DAUG 22 - 27 12/04/07	Green Point Landfill X-10DAUG 22 - 27 03/12/08	Green Point Landfill X-16A 5.5 - 8.8 07/27/95	Green Point Landfill X-16A 5.5 - 8.8 05/24/00
Inorganics-Dissolved (Cont'd.)										
Mercury (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 UJ	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	0.2 U
Nickel (Dissolved)	ug/L	11.1 J	4.3 J	7.2 J	50 U	20 U [20 U]	20 U	20 U	50 U	9.5 B
Potassium (Dissolved)	ug/L	19,400	12,400 J	19,000	5,000 U	1,920 [1,960]	2,180 J	1,930	5,000 U	1,920 B
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U
Silver (Dissolved)	ug/L	R	0.2 U	0.2 U	0.5 UJ	0.2 UJ [0.2 UJ]	0.2 U	0.2 U	0.5 U	5 U
Sodium (Dissolved)	ug/L	363,000	84,200	325,000	118,000	196,000 [200,000]	212,000	183,000	86,200	124,000
Thallium (Dissolved)	ug/L	1 U	1 U	1 U	2 UJ	1 U [1 U]	1 U	1 U	2 UJ	7.6 B
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	4 U	7.6	4 U	20 U	4 U [4 U]	4 U	4 U	20 U	50 U
Zinc (Dissolved)	ug/L	20 U	20.4	20 U	20 U	20 U [20 U]	20 U	20 U	50	20 U
Miscellaneous										
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	21,000	200 U	22,000	NA	4,300 [4,500]	3,100	4,200	NA	400
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	ug/L	864,000	63,900	912,000	NA	505,000 [508,000]	530,000	542,000	NA	420,000
Estimated Un-ionized Ammonia	ug/L	1,512	14.4 U	1,584	NA	309.6 [324]	223.2	302.4	NA	28.8
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	100 U	3,100	100 U	NA	100 U [100 U]	100 U	100 U	NA	5,000 U
Nitrite (as N)	ug/L	340	100 U	100 U	NA	320 [240]	100 U	100 U	NA	5,000 U
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	7.1 J	7	6.9	NA	6.9 J [6.8 J]	6.9	6.8	NA	6.7
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	4,000	311,000	1,000 U	NA	1,000 U [1,000 U]	200 J	1,000 U	NA	601,000
Sulfide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	2,400,000	710,000	2,100,000	NA	1,500,000 [1,700,000]	1,500,000	1,500,000	NA	1,900,000
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
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SAGINAW, MICHIGAN

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Gases										
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	Green Point Landfill X-16A 5.5 - 8.8 06/19/01	Green Point Landfill X-16A 5.5 - 8.8 06/25/02	Green Point Landfill X-16A 5.5 - 8.8 06/17/03	Green Point Landfill X-16A 5.5 - 8.8 06/18/03	Green Point Landfill X-16A 5.5 - 8.8 05/26/04	Green Point Landfill X-16A 5.5 - 8.8 06/21/05	Green Point Landfill X-16A 5.5 - 8.8 12/12/06	Green Point Landfill X-16A 5.5 - 8.8 12/05/07	Green Point Landfill X-16A 5.5 - 8.8 12/06/07
Inorganics										
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	0.200 UJ	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved										
Aluminum (Dissolved)	ug/L	100 U	100 U	NA	100 U	100 U [100 U]	200 U	200 U	NA	200 U
Antimony (Dissolved)	ug/L	5 U	5 U	NA	5 U	5 U [5 U]	0.15 B	2 U	NA	2 U
Arsenic (Dissolved)	ug/L	10 U	10 U	NA	10 U	10 U [10 U]	1.8 B	5 U	NA	5 U
Barium (Dissolved)	ug/L	225	227	NA	234	227 [222]	223	260	NA	233
Beryllium (Dissolved)	ug/L	4 U	4 U	NA	4 U	4 U [4 U]	1 U	1 U	NA	1 U
Cadmium (Dissolved)	ug/L	1 U	1 U	NA	0.34 B	1 U [1 U]	0.5 U	1 U	NA	1 U
Calcium (Dissolved)	ug/L	377,000	373,000	NA	378,000	365,000 [371,000]	363,000	360,000	NA	374,000
Chromium Total (Dissolved)	ug/L	5 U	5 U	NA	5 U	5 U [5 U]	2 U	5 U	NA	5 U
Cobalt (Dissolved)	ug/L	40 U	40 U	NA	40 U	40 U [40 U]	1.6	7 U	NA	7 U
Copper (Dissolved)	ug/L	25 U	25 U	NA	25 U	25 U [25 U]	1.9 B	2.1	NA	3.1
Cyanide (Dissolved)	ug/L	5.8	5 U	5 U	NA	5 U [5 U]	10 U	5.3 J	10 U	NA
Iron (Dissolved)	ug/L	9,020	8,800	NA	12,700	10,200 [10,100]	9,990	8,250	NA	100 U
Lead (Dissolved)	ug/L	3 U	3 U	NA	3 U	3 U [3 U]	1 U	3 U	NA	3 U
Magnesium (Dissolved)	ug/L	136,000	133,000	NA	140,000	138,000 [141,000]	134,000	127,000	NA	143,000
Manganese (Dissolved)	ug/L	964	1,050	NA	1,020	896 [935]	784	936	NA	935
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	Green Point Landfill X-16A 5.5 - 8.8 06/19/01	Green Point Landfill X-16A 5.5 - 8.8 06/25/02	Green Point Landfill X-16A 5.5 - 8.8 06/17/03	Green Point Landfill X-16A 5.5 - 8.8 06/18/03	Green Point Landfill X-16A 5.5 - 8.8 05/26/04	Green Point Landfill X-16A 5.5 - 8.8 06/21/05	Green Point Landfill X-16A 5.5 - 8.8 12/12/06	Green Point Landfill X-16A 5.5 - 8.8 12/05/07	Green Point Landfill X-16A 5.5 - 8.8 12/06/07
Inorganics-Dissolved (Cont'd.)										
Mercury (Dissolved)	ug/L	NA	0.2 UJ	NA	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	NA	0.2 U
Nickel (Dissolved)	ug/L	40 U	40 U	NA	40 U	40 U [2.7 B]	8.7	20 U	NA	20 U
Potassium (Dissolved)	ug/L	1,530 BJ	1,790 BJ	NA	1,660 B	1,550 B [1,620 B]	1,640 BJ	1,580	NA	1,840 J
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 U	5 U	NA	5 U	5 U [5 U]	5.9	6.5 U	NA	5 U
Silver (Dissolved)	ug/L	5 U	5 U	NA	5 U	5 U [5 U]	0.5 U	R	NA	0.2 U
Sodium (Dissolved)	ug/L	124,000	119,000	NA	129,000	128,000 [129,000]	131,000	138,000	NA	152,000
Thallium (Dissolved)	ug/L	6.6 B	5.6 BJ	NA	10 U	10 U [10 U]	1 U	1 U	NA	1 U
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	50 U	50 U	NA	50 U	50 U [50 U]	5 U	4 U	NA	4 U
Zinc (Dissolved)	ug/L	20 U	20 U	NA	20 U	20 U [20 U]	13.2	20 U	NA	5.7 J
Miscellaneous										
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	800	700	700	NA	500 [400]	400	600	400	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	ug/L	428,000	462,000 J	NA	530,000	519,000 [516,000]	536,000	514,000	545,000	NA
Estimated Un-ionized Ammonia	ug/L	57.6	50.4	50.4	NA	36 [28.8]	28.8	43.2	28.8	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	500 U	500 U	NA	500 U	500 U [500 U]	100 U	51 J	100 U	NA
Nitrite (as N)	ug/L	R	500 U	NA	500 U	500 U [500 U]	500 U	260	100 U	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	7.9	7.3	NA	7.9	7.2 [7.1]	7	7 J	7	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	602,000	568,000	NA	526,000 J	528,000 [528,000]	487,000	423,000	427,000	NA
Sulfide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	1,900,000	2,100,000	NA	2,000,000	1,900,000 [1,900,000]	2,200,000	2,700,000	2,000,000 J	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Gases										
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	Green Point Landfill X-16A 5.5 - 8.8 04/02/08	Green Point Landfill X-16B 20.4 - 23.4 07/28/95	Green Point Landfill X-16B 20.4 - 23.4 05/19/00	Green Point Landfill X-16B 20.4 - 23.4 06/20/01	Green Point Landfill X-16B 20.4 - 23.4 06/26/02	Green Point Landfill X-16B 20.4 - 23.4 06/27/02	Green Point Landfill X-16B 20.4 - 23.4 06/17/03	Green Point Landfill X-16B 20.4 - 23.4 06/18/03	Green Point Landfill X-16B 20.4 - 23.4 05/26/04
Inorganics										
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	5.00 U	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	0.200 UJ	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved										
Aluminum (Dissolved)	ug/L	200 U	NA	122	100 U	100 U	NA	NA	100 U	100 U
Antimony (Dissolved)	ug/L	2 U	NA	5 U	5 U	5 U	NA	NA	5 U	5 U
Arsenic (Dissolved)	ug/L	5 U	NA	10 U	10 U	2.5 B	NA	NA	10 U	10 U
Barium (Dissolved)	ug/L	242	NA	35.7 B	58.7 B	28.2 B	NA	NA	100 U	31.6 B
Beryllium (Dissolved)	ug/L	1 U	NA	4 U	4 U	4 U	NA	NA	4 U	4 U
Cadmium (Dissolved)	ug/L	1 U	NA	0.59 B	1 U	1 U	NA	NA	1 U	0.39
Calcium (Dissolved)	ug/L	374,000	NA	84,700	136,000	76,100	NA	NA	74,700	73,300 J
Chromium Total (Dissolved)	ug/L	5 U	NA	5 U	5 U	5 U	NA	NA	5 U	5 U
Cobalt (Dissolved)	ug/L	7 U	NA	40 U	40 U	40 U	NA	NA	40 U	1.4
Copper (Dissolved)	ug/L	0.53 J	NA	25 U	25 U	25 U	NA	NA	25 U	25 U
Cyanide (Dissolved)	ug/L	10 U	NA	5 U	5 U	5 U	NA	5 U	NA	5 U
Iron (Dissolved)	ug/L	7,120	NA	100 U	100 U	100 U	NA	NA	100 U	100 U
Lead (Dissolved)	ug/L	3 U	NA	3 U	3 U	3 U	NA	NA	3 U	3 U
Magnesium (Dissolved)	ug/L	145,000	NA	60,100	61,500	51,200	NA	NA	51,200	51,700 J
Manganese (Dissolved)	ug/L	968	NA	84.5	40.4	135	NA	NA	12.5 B	20 U
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Green Point Landfill X-16A 5.5 - 8.8 04/02/08	Green Point Landfill X-16B 20.4 - 23.4 07/28/95	Green Point Landfill X-16B 20.4 - 23.4 05/19/00	Green Point Landfill X-16B 20.4 - 23.4 06/20/01	Green Point Landfill X-16B 20.4 - 23.4 06/26/02	Green Point Landfill X-16B 20.4 - 23.4 06/27/02	Green Point Landfill X-16B 20.4 - 23.4 06/17/03	Green Point Landfill X-16B 20.4 - 23.4 06/18/03	Green Point Landfill X-16B 20.4 - 23.4 05/26/04
Inorganics-Dissolved (Cont'd.)										
Mercury (Dissolved)	ug/L	0.2 U	NA	0.2 U	NA	0.2 UJ	NA	NA	0.13 B	0.2 U
Nickel (Dissolved)	ug/L	20 U	NA	23.8 B	3.7 B	40 U	NA	NA	40 U	40 U
Potassium (Dissolved)	ug/L	1,620	NA	2,620 B	2,450 BJ	2,540 BJ	NA	NA	2,320 B	2,540 J
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 U	NA	5 U	5 U	5 U	NA	NA	5 U	5 U
Silver (Dissolved)	ug/L	0.2 U	NA	5 U	5 U	5 U	NA	NA	5 U	5 U
Sodium (Dissolved)	ug/L	147,000	NA	91,000	99,400	80,200	NA	NA	77,800	80,200
Thallium (Dissolved)	ug/L	1 U	NA	3.9 B	10 U	10 UJ	NA	NA	10 U	10 U
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	4 U	NA	50 U	50 U	50 U	NA	NA	50 U	50 U
Zinc (Dissolved)	ug/L	20 U	NA	14.5 B	24.4	28.2	NA	NA	20 U	20 U
Miscellaneous										
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	400	NA	200 U	19,000	NA	200 U	200 U	NA	200 U
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	ug/L	556,000	NA	90,600 J	265,000	NA	56,200	NA	61,500	42,300
Estimated Un-ionized Ammonia	ug/L	28.8	NA	14.4 U	1,368	NA	14.4 U	14.4 U	NA	14.4 U
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	100 U	NA	160 BG	170 B	NA	500 U	NA	230 B	260 B
Nitrite (as N)	ug/L	100 U	NA	1,000 UG	R	NA	500 U	NA	500 U	500 U
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	7	NA	7.9	7.9	NA	7.5	NA	8.4	7.6
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	466,000	NA	229,000	192,000	NA	216,000	NA	214,000 J	205,000
Sulfide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	1,900,000 J	NA	670,000	920,000	NA	660,000 [670,000]	NA	640,000	600,000
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Green Point Landfill X-16A 5.5 - 8.8 04/02/08	Green Point Landfill X-16B 20.4 - 23.4 07/28/95	Green Point Landfill X-16B 20.4 - 23.4 05/19/00	Green Point Landfill X-16B 20.4 - 23.4 06/20/01	Green Point Landfill X-16B 20.4 - 23.4 06/26/02	Green Point Landfill X-16B 20.4 - 23.4 06/27/02	Green Point Landfill X-16B 20.4 - 23.4 06/17/03	Green Point Landfill X-16B 20.4 - 23.4 06/18/03	Green Point Landfill X-16B 20.4 - 23.4 05/26/04
Gases										
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Green Point Landfill X-16B 20.4 - 23.4 06/21/05	Green Point Landfill X-16B 20.4 - 23.4 12/12/06	Green Point Landfill X-16B 20.4 - 23.4 12/03/07	Green Point Landfill X-16B 20.4 - 23.4 03/14/08	Green Point Landfill X-16B 20.4 - 23.4 04/01/08	Green Point Landfill X-17R 2 - 12 07/26/95	Green Point Landfill X-17R 2 - 12 06/04/96	Green Point Landfill X-17R 2 - 12 05/29/08	Green Point Landfill X-18R 4.2 - 7.2 05/29/08
Inorganics										
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	NA	NA	NA	NA	5.00 U	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved										
Aluminum (Dissolved)	ug/L	200 U	200 U	200 U	200 U	NA	100 U	100 U [104 U]	NA	NA
Antimony (Dissolved)	ug/L	0.29 B	2 U	2 U	2 U	NA	5 U	5 U [5 U]	NA	NA
Arsenic (Dissolved)	ug/L	2.1	5 U	5 U	4.7 J	NA	1 UJ	5 U [5 U]	NA	NA
Barium (Dissolved)	ug/L	28.2	27.4 J	23.4 J	31.7 J	NA	200 U	200 U [200 U]	NA	NA
Beryllium (Dissolved)	ug/L	1 U	1 U	1 U	1 U	NA	5 U	5 U [5 U]	NA	NA
Cadmium (Dissolved)	ug/L	0.32 B	0.67 J	1 U	0.97 J	NA	0.2 UJ	0.5 UJ [0.5 UJ]	NA	NA
Calcium (Dissolved)	ug/L	66,000	59,000	52,900	66,700	NA	178,000	184,000 [179,000]	NA	NA
Chromium Total (Dissolved)	ug/L	2 U	5 U	5 U	5 U	NA	50 U	50 U [50 U]	NA	NA
Cobalt (Dissolved)	ug/L	0.68 B	1.2 J	7 U	7 U	NA	50 U	50 U [50 U]	NA	NA
Copper (Dissolved)	ug/L	3.2	2.7	2.2 U	2 U	NA	25 U	25 U [25 U]	NA	NA
Cyanide (Dissolved)	ug/L	10 U	10 U	10 U	5 J	NA	NA	5 U [5 U]	NA	NA
Iron (Dissolved)	ug/L	234	100 U	100 U	100 U	NA	100 U	100 UJ [100 UJ]	NA	NA
Lead (Dissolved)	ug/L	1 U	3 U	3 U	3 U	NA	3 U	3 U [3 U]	NA	NA
Magnesium (Dissolved)	ug/L	46,200	44,600	37,200	48,800	NA	150,000	118,000 [119,000]	NA	NA
Manganese (Dissolved)	ug/L	2.2	12.1 J	15 U	5.9 J	NA	25.3	92.1 [117]	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
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INORGANIC COMPOUNDS

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	Green Point Landfill X-16B 20.4 - 23.4 06/21/05	Green Point Landfill X-16B 20.4 - 23.4 12/12/06	Green Point Landfill X-16B 20.4 - 23.4 12/03/07	Green Point Landfill X-16B 20.4 - 23.4 03/14/08	Green Point Landfill X-16B 20.4 - 23.4 04/01/08	Green Point Landfill X-17R 2 - 12 07/26/95	Green Point Landfill X-17R 2 - 12 06/04/96	Green Point Landfill X-17R 2 - 12 05/29/08	Green Point Landfill X-18R 4.2 - 7.2 05/29/08
Inorganics-Dissolved (Cont'd.)										
Mercury (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U [0.2 U]	NA	NA
Nickel (Dissolved)	ug/L	1.8 B	20 U	20 U	20 U	NA	50 U	50 U [50 U]	NA	NA
Potassium (Dissolved)	ug/L	3,380 BJ	3,500	3,520 J	2,410 J	NA	5,000 U	5,000 U [5,000 U]	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	1.5 B	5 U	5 U	5 U	NA	5 U	5 U [5 U]	NA	NA
Silver (Dissolved)	ug/L	0.5 U	R	0.2 U	0.2 U	NA	0.5 U	0.5 UJ [0.5 U]	NA	NA
Sodium (Dissolved)	ug/L	73,100	92,000	65,000	79,000	NA	81,100	78,200 [75,300]	NA	NA
Thallium (Dissolved)	ug/L	1 U	1 U	1 U	1 U	NA	2 UJ	2 UJ [2 UJ]	NA	NA
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	5 U	4 U	4 U	4 U	NA	20 U	20 U [20 U]	NA	NA
Zinc (Dissolved)	ug/L	5.6 B	11 J	20 U	20 U	NA	20 U	20 U [20 U]	NA	NA
Miscellaneous										
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	200 U	200 U	200 U	NA	60 J	NA	NA	70 B	100 B [100 B]
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	ug/L	37,300	47,300	36,700	NA	29,300	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	14.4 U	14.4 U	14.4 U	NA	4.32 J	NA	NA	5.04 B	7.2 B [7.2 B]
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	350	430	300	NA	200	NA	NA	NA	NA
Nitrite (as N)	ug/L	100 U	27 J	100 U	NA	100 U	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	7.6	8 J	7.9	NA	7.6	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	206,000	192,000	206,000	NA	216,000	NA	NA	NA	NA
Sulfide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	630,000	650,000	620,000	NA	590,000	NA	NA	2,200,000	4,100,000 [4,500,000]
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Gases										
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Green Point Landfill X-19AR 2 - 12 07/28/95	Green Point Landfill X-19AR 2 - 12 06/04/96	Green Point Landfill X-19AR 2 - 12 05/29/08	LNAPL Assessment Area MW-132S1 22 - 27 07/21/95	LNAPL Assessment Area MW-132S1 22 - 27 06/07/96	LNAPL Assessment Area MW-132WT 4 - 14 07/21/95	LNAPL Assessment Area MW-132WT 4 - 14 06/06/96
Inorganics								
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	5.00 U	NA	NA	5.00 U	NA	5.00 U	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved								
Aluminum (Dissolved)	ug/L	100 U	100 U	NA	R	NA	100 U	NA
Antimony (Dissolved)	ug/L	5 U	5 U	NA	5 U	NA	5 U	NA
Arsenic (Dissolved)	ug/L	5.6	5 U	NA	12.4	NA	28	NA
Barium (Dissolved)	ug/L	200 U	200 U	NA	200 U	NA	200 U	NA
Beryllium (Dissolved)	ug/L	5 U	5 U	NA	5 U	NA	5 U	NA
Cadmium (Dissolved)	ug/L	0.2 UJ	0.5 U	NA	0.2 UJ	NA	0.2 UJ	NA
Calcium (Dissolved)	ug/L	252,000	259,000	NA	76,800	NA	110,000	NA
Chromium Total (Dissolved)	ug/L	50 U	50 U	NA	50 U	NA	50 U	NA
Cobalt (Dissolved)	ug/L	50 U	50 U	NA	50 U	NA	50 U	NA
Copper (Dissolved)	ug/L	25 U	25 U	NA	25 U	NA	25 U	NA
Cyanide (Dissolved)	ug/L	NA	5 U	NA	NA	NA	NA	NA
Iron (Dissolved)	ug/L	2,100	1,990 J	NA	3,910	4,920	6,310	1,560
Lead (Dissolved)	ug/L	3 U	3 U	NA	3 U	NA	3 U	NA
Magnesium (Dissolved)	ug/L	71,500	76,000	NA	27,200	NA	30,800	NA
Manganese (Dissolved)	ug/L	517	547	NA	179	222	399	202
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Green Point Landfill X-19AR 2 - 12 07/28/95	Green Point Landfill X-19AR 2 - 12 06/04/96	Green Point Landfill X-19AR 2 - 12 05/29/08	LNAPL Assessment Area MW-132S1 22 - 27 07/21/95	LNAPL Assessment Area MW-132S1 22 - 27 06/07/96	LNAPL Assessment Area MW-132WT 4 - 14 07/21/95	LNAPL Assessment Area MW-132WT 4 - 14 06/06/96
Inorganics-Dissolved (Cont'd.)								
Mercury (Dissolved)	ug/L	0.2 U	0.2 U	NA	0.2 UJ	NA	0.2 UJ	NA
Nickel (Dissolved)	ug/L	50 U	50 U	NA	50 U	NA	50 U	NA
Potassium (Dissolved)	ug/L	5,000 U	5,000 U	NA	8,080	NA	5,000 U	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 U	5 U	NA	5 U	NA	5 U	NA
Silver (Dissolved)	ug/L	0.5 U	0.5 UJ	NA	0.5 UJ	NA	0.5 UJ	NA
Sodium (Dissolved)	ug/L	90,600	84,300	NA	59,600	61,700	86,200	37,000
Thallium (Dissolved)	ug/L	2 UJ	2 UJ	NA	2 UJ	NA	2 UJ	NA
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	20 U	20 U	NA	20 U	NA	20 U	NA
Zinc (Dissolved)	ug/L	20 U	20 U	NA	R	20.6	R	20 U
Miscellaneous								
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	200	NA	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	14.4	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA
Nitrite (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA
Sulfide	ug/L	NA	NA	NA	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	890,000	NA	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Green Point Landfill X-19AR 2 - 12 07/28/95	Green Point Landfill X-19AR 2 - 12 06/04/96	Green Point Landfill X-19AR 2 - 12 05/29/08	LNAPL Assessment Area MW-132S1 22 - 27 07/21/95	LNAPL Assessment Area MW-132S1 22 - 27 06/07/96	LNAPL Assessment Area MW-132WT 4 - 14 07/21/95	LNAPL Assessment Area MW-132WT 4 - 14 06/06/96
Gases								
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	LNAPL Assessment Area MW-147WT 5 - 15 07/30/95	LNAPL Assessment Area MW-151WT 6 - 16 10/20/95	LNAPL Assessment Area MW-152WT 6 - 16 10/20/95	LNAPL Assessment Area MW-152WT 6 - 16 06/05/96	LNAPL Assessment Area MW-152WT 6 - 16 05/21/00	LNAPL Assessment Area MW-153WT 6 - 16 10/20/95	LNAPL Assessment Area MW-153WT 6 - 16 06/07/96
Inorganics								
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	5.00 U	5.00 U	5.00 U	NA	NA	5.00 U	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	7,440	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	3,510	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved								
Aluminum (Dissolved)	ug/L	100 U	192	104	100 U	NA	152	151 U
Antimony (Dissolved)	ug/L	5 U	5 U	5 U	5 U	NA	5 U	5 U
Arsenic (Dissolved)	ug/L	36	15	5.5	5 U	NA	50.8	39
Barium (Dissolved)	ug/L	213	200 U	200 U	333	NA	203	200 U
Beryllium (Dissolved)	ug/L	5 U	5 U	5 U	5 U	NA	5 U	5 U
Cadmium (Dissolved)	ug/L	0.2 UJ	0.2 U	0.2 U	0.5 U	NA	0.2 U	0.5 UJ
Calcium (Dissolved)	ug/L	183,000	196,000	148,000	359,000	NA	183,000	153,000
Chromium Total (Dissolved)	ug/L	50 U	50 U	50 U	50 U	NA	50 U	50 U
Cobalt (Dissolved)	ug/L	50 U	50 U	50 U	50 U	NA	50 U	50 U
Copper (Dissolved)	ug/L	25 U	25 U	25 U	25 U	NA	25 U	25 U
Cyanide (Dissolved)	ug/L	NA	NA	NA	5 U	NA	NA	5 UJ
Iron (Dissolved)	ug/L	11,400	8,310	2,620	5,870	2,100	9,500	9,170
Lead (Dissolved)	ug/L	3 U	3 U	3 U	3 U	NA	3 U	3 U
Magnesium (Dissolved)	ug/L	46,900	17,000	26,700	81,200	NA	44,600	42,500
Manganese (Dissolved)	ug/L	2,510	2,170	1,580	4,370	1,000	1,210	718
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	LNAPL Assessment Area MW-147WT 5 - 15 07/30/95	LNAPL Assessment Area MW-151WT 6 - 16 10/20/95	LNAPL Assessment Area MW-152WT 6 - 16 10/20/95	LNAPL Assessment Area MW-152WT 6 - 16 06/05/96	LNAPL Assessment Area MW-152WT 6 - 16 05/21/00	LNAPL Assessment Area MW-153WT 6 - 16 10/20/95	LNAPL Assessment Area MW-153WT 6 - 16 06/07/96
Inorganics-Dissolved (Cont'd.)								
Mercury (Dissolved)	ug/L	0.2 UJ	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U
Nickel (Dissolved)	ug/L	50 U	50 U	50 U	50 U	NA	50 U	50 U
Potassium (Dissolved)	ug/L	8,950	10,500	21,200	34,600	NA	14,600	9,020
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 U	5 U	5 U	5 U	NA	5 U	5 U
Silver (Dissolved)	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U
Sodium (Dissolved)	ug/L	178,000	81,500	102,000	239,000	NA	200,000	173,000
Thallium (Dissolved)	ug/L	2 UJ	2 UW	2 UW	4 UJ	NA	2 UW	2 UJ
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	20 U	20 U	20 U	20 U	NA	20 U	20 U
Zinc (Dissolved)	ug/L	20 U	20 U	20 U	20 U	NA	20 U	20 U
Miscellaneous								
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	20 U	2,400	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	2,900	NA	NA
Manganese	ug/L	NA	NA	NA	NA	1,100	NA	NA
Nitrate (as N)	ug/L	NA	NA	NA	80 U	NA	NA	NA
Nitrite (as N)	ug/L	NA	NA	NA	70 U	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	50 U	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	NA	NA	NA	21,200	7,300	NA	NA
Sulfide	ug/L	NA	NA	NA	1,100	2,000 U	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	5,400	27,000	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA	NA

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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	LNAPL Assessment Area MW-147WT 5 - 15 07/30/95	LNAPL Assessment Area MW-151WT 6 - 16 10/20/95	LNAPL Assessment Area MW-152WT 6 - 16 10/20/95	LNAPL Assessment Area MW-152WT 6 - 16 06/05/96	LNAPL Assessment Area MW-152WT 6 - 16 05/21/00	LNAPL Assessment Area MW-153WT 6 - 16 10/20/95	LNAPL Assessment Area MW-153WT 6 - 16 06/07/96
Gases								
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	25,100	24,930	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	400 U	400 U	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	900	630	NA	NA
Ethane	ug/L	NA	NA	NA	NA	7.791	NA	NA
Ethene	ug/L	NA	NA	NA	NA	0.045	NA	NA
Methane	ug/L	NA	NA	NA	1,100	7,590	NA	NA
Nitrogen	ug/L	NA	NA	NA	16,400	13,850	NA	NA

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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	LNAPL Assessment Area MW-154WT 6 - 16 10/19/95	LNAPL Assessment Area MW-154WT 6 - 16 06/13/96	LNAPL Assessment Area MW-155WT 6 - 16 10/19/95	LNAPL Assessment Area MW-156WT 6 - 16 10/20/95	LNAPL Assessment Area MW-171WT 6.7 - 16.2 03/12/97	LNAPL Assessment Area MW-171WT 6.7 - 16.2 05/24/00	LNAPL Assessment Area TW-239WT 02/02/95
Inorganics								
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	50.0	NA	5.00 U	5.00 U [21.0]	NA	NA	12.0 J
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	8,500	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	1,100	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved								
Aluminum (Dissolved)	ug/L	125	100 U	148	100 U [115]	NA	NA	100 U
Antimony (Dissolved)	ug/L	5 U	5 U	5 U	5 U [5 U]	NA	NA	5 U
Arsenic (Dissolved)	ug/L	24.6	5 U	23.3	23.4 [27.9]	NA	NA	23 J
Barium (Dissolved)	ug/L	200 U	200 U	208	200 U [200 U]	NA	NA	200 U
Beryllium (Dissolved)	ug/L	5 U	5 U	5 U	5 U [5 U]	NA	NA	5 U
Cadmium (Dissolved)	ug/L	0.2 U	0.5 U	0.2 U	0.2 U [0.2 U]	NA	NA	0.2 UJ
Calcium (Dissolved)	ug/L	96,000	73,900	166,000	81,200 [82,900]	NA	NA	148,000
Chromium Total (Dissolved)	ug/L	50 U	50 U	50 U	50 U [50 U]	NA	NA	50 UJ
Cobalt (Dissolved)	ug/L	50 U	50 U	50 U	50 U [50 U]	NA	NA	50 U
Copper (Dissolved)	ug/L	25 U	25 U	25 U	25 U [25 U]	NA	NA	25 U
Cyanide (Dissolved)	ug/L	NA	53	NA	NA	NA	NA	NA
Iron (Dissolved)	ug/L	3,310	1,360	7,280	2,340 [2,370]	8,000	7,200	3,040
Lead (Dissolved)	ug/L	3 U	3 U	3 U	3 U [3 U]	NA	NA	3 U
Magnesium (Dissolved)	ug/L	22,100	19,800	39,600	28,500 [28,800]	NA	NA	36,100
Manganese (Dissolved)	ug/L	532	217	1,150	315 [324]	1,100	900	2,460
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	LNAPL Assessment Area MW-154WT 6 - 16 10/19/95	LNAPL Assessment Area MW-154WT 6 - 16 06/13/96	LNAPL Assessment Area MW-155WT 6 - 16 10/19/95	LNAPL Assessment Area MW-156WT 6 - 16 10/20/95	LNAPL Assessment Area MW-171WT 6.7 - 16.2 03/12/97	LNAPL Assessment Area MW-171WT 6.7 - 16.2 05/24/00	LNAPL Assessment Area TW-239WT 02/02/95
Inorganics-Dissolved (Cont'd.)								
Mercury (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	NA	NA	0.2 U
Nickel (Dissolved)	ug/L	50 U	50 U	50 U	50 U [50 U]	NA	NA	50 U
Potassium (Dissolved)	ug/L	7,400	7,180	10,600	5,000 U [5,000 U]	NA	NA	12,300
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 U	5 U	5 U	5 U [5 U]	NA	NA	5 U
Silver (Dissolved)	ug/L	0.5 U	0.5 UJ	0.5 U	0.5 U [0.5 U]	NA	NA	0.5 U
Sodium (Dissolved)	ug/L	57,400	61,300	241,000	163,000 [166,000]	NA	NA	158,000
Thallium (Dissolved)	ug/L	2 U	2 UJ	2 UW	2 UW [2 UW]	NA	NA	2 UJ
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	20 U	20 U	20 U	20 U [20 U]	NA	NA	20 U
Zinc (Dissolved)	ug/L	20 U	20 U	20 U	20 U [28]	NA	NA	20 U
Miscellaneous								
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	7,300	6,600	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	7,200	NA
Manganese	ug/L	NA	NA	NA	NA	NA	920	NA
Nitrate (as N)	ug/L	NA	NA	NA	NA	590	NA	NA
Nitrite (as N)	ug/L	NA	NA	NA	NA	70 U	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	50 U	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	NA	NA	NA	NA	5,000 U	5,000 U	NA
Sulfide	ug/L	NA	NA	NA	NA	1,000	2,000 U	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	39,500	35,000	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	LNAPL Assessment Area MW-154WT 6 - 16 10/19/95	LNAPL Assessment Area MW-154WT 6 - 16 06/13/96	LNAPL Assessment Area MW-155WT 6 - 16 10/19/95	LNAPL Assessment Area MW-156WT 6 - 16 10/20/95	LNAPL Assessment Area MW-171WT 6.7 - 16.2 03/12/97	LNAPL Assessment Area MW-171WT 6.7 - 16.2 05/24/00	LNAPL Assessment Area TW-239WT 02/02/95
Gases								
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	68,300	74,780	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	400 U	400 U	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	640	920	NA
Ethane	ug/L	NA	NA	NA	NA	NA	19.907	NA
Ethene	ug/L	NA	NA	NA	NA	NA	0.07	NA
Methane	ug/L	NA	NA	NA	NA	2,790	3,580	NA
Nitrogen	ug/L	NA	NA	NA	NA	16,000	17,300	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Northern Drainage Channels B-5BAUG 35 - 40 07/12/95	Northern Drainage Channels B-5CAUG 42.5 - 47.5 07/12/95	Northern Drainage Channels B-5R 5 - 15 07/12/95	Northern Drainage Channels MW-5A 5 - 15 07/13/95	Northern Drainage Channels MW-5A 5 - 15 06/08/96	Northern Drainage Channels MW-5B 25 - 30 07/13/95
Inorganics							
Aluminum	ug/L	NA	NA	NA	100 U	100 U	NA
Antimony	ug/L	NA	NA	NA	5.00 U	5.00 U	NA
Arsenic	ug/L	NA	NA	NA	3.00 UJ	5.00 U	NA
Barium	ug/L	NA	NA	NA	200 U	200 U	NA
Beryllium	ug/L	NA	NA	NA	5.00 U	5.00 U	NA
Cadmium	ug/L	NA	NA	NA	0.200 U	0.500 UJ	NA
Calcium	ug/L	NA	NA	NA	118,000	84,500	NA
Chromium Total	ug/L	NA	NA	NA	50.0 UJ	50.0 U	NA
Cobalt	ug/L	NA	NA	NA	50.0 U	50.0 U	NA
Copper	ug/L	NA	NA	NA	25.0 U	25.0 U	NA
Cyanide (total)	ug/L	5.00 U [5.00 U]	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	5,520	R	NA
Lead	ug/L	NA	NA	NA	3.00 U	3.00 U	NA
Magnesium	ug/L	NA	NA	NA	21,300	14,300	NA
Manganese	ug/L	NA	NA	NA	1,880	1,040	NA
Mercury	ug/L	NA	NA	NA	0.200 U	0.200 U	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	50.0 U	50.0 U	NA
Potassium	ug/L	NA	NA	NA	7,250	7,300	NA
Selenium	ug/L	NA	NA	NA	5.00 U	5.00 U	NA
Silver	ug/L	NA	NA	NA	0.500 U	0.500 U	NA
Sodium	ug/L	NA	NA	NA	47,800	50,700	NA
Thallium	ug/L	NA	NA	NA	2.00 UJ	4.00 UJ	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	20.0 U	20.0 U	NA
Zinc	ug/L	NA	NA	NA	20.0 U	20.0 UJ	NA
Inorganics-Dissolved							
Aluminum (Dissolved)	ug/L	100 U [107]	157	NA	100 U	100 U	100 U
Antimony (Dissolved)	ug/L	5 U [5 U]	5 U	5 U	5 U	5 U	5 U
Arsenic (Dissolved)	ug/L	1.8 [1.6]	1 U	13.5	1 U	5 U	1 UJ
Barium (Dissolved)	ug/L	226 [222]	478	200 U	200 U	200 U	200 U
Beryllium (Dissolved)	ug/L	5 U [5 U]	5 U	5 U	5 U	5 U	5 U
Cadmium (Dissolved)	ug/L	0.2 U [0.2 U]	0.4 U	0.2 UJ	0.2 U	0.5 UJ	0.2 U
Calcium (Dissolved)	ug/L	123,000 [118,000]	393,000	NA	111,000	84,700	64,400
Chromium Total (Dissolved)	ug/L	50 U [50 U]	50 U	50 U	50 U	50 U	50 U
Cobalt (Dissolved)	ug/L	50 U [50 U]	50 U	50 U	50 U	50 U	50 U
Copper (Dissolved)	ug/L	25 U [25 U]	25 U	25 U	25 U	25 U	25 U
Cyanide (Dissolved)	ug/L	NA	NA	NA	NA	5 UJ	NA
Iron (Dissolved)	ug/L	6,290 [6,100]	13,200	NA	2,110	921	2,410
Lead (Dissolved)	ug/L	3 U [3 U]	3 U	3 U	3 U	3 U	3 U
Magnesium (Dissolved)	ug/L	44,300 [43,500]	127,000	NA	20,100	14,300	25,300
Manganese (Dissolved)	ug/L	365 [348]	502	NA	1,800	1,020	272
Mercury	ug/L	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Northern Drainage Channels B-5BAUG 35 - 40 07/12/95	Northern Drainage Channels B-5CAUG 42.5 - 47.5 07/12/95	Northern Drainage Channels B-5R 5 - 15 07/12/95	Northern Drainage Channels MW-5A 5 - 15 07/13/95	Northern Drainage Channels MW-5A 5 - 15 06/08/96	Northern Drainage Channels MW-5B 25 - 30 07/13/95
Inorganics-Dissolved (Cont'd.)							
Mercury (Dissolved)	ug/L	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Nickel (Dissolved)	ug/L	50 U [50 U]	50 U	50 U	50 U	50 U	50 U
Potassium (Dissolved)	ug/L	5,000 U [5,000 U]	10,100	NA	6,800	7,480	5,000 U
Selenium	ug/L	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 U [5 U]	5 U	5 U	5 U	5 U	5 U
Silver (Dissolved)	ug/L	0.5 U [0.5 U]	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Sodium (Dissolved)	ug/L	259,000 [257,000]	1,860,000	NA	45,500	51,800	404,000
Thallium (Dissolved)	ug/L	2 UJ [2 UJ]	4 UJ*	2 UJ	2 UJ	4 UJ	2 UJ
Tin (Dissolved)	ug/L	NA	NA	100 U	NA	NA	NA
Vanadium (Dissolved)	ug/L	20 U [20 U]	35	20 U	20 U	20 U	20 U
Zinc (Dissolved)	ug/L	20 U [20 U]	20 U	20 U	20 U	20 UJ	20 U
Miscellaneous							
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	NA	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	NA	NA	NA	NA	NA
Nitrite (as N)	ug/L	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	NA	NA	NA	NA	NA	NA
Sulfide	ug/L	NA	NA	5,000	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	NA	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA

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TABLE A-2
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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Northern Drainage Channels B-5BAUG 35 - 40 07/12/95	Northern Drainage Channels B-5CAUG 42.5 - 47.5 07/12/95	Northern Drainage Channels B-5R 5 - 15 07/12/95	Northern Drainage Channels MW-5A 5 - 15 07/13/95	Northern Drainage Channels MW-5A 5 - 15 06/08/96	Northern Drainage Channels MW-5B 25 - 30 07/13/95
Gases							
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA

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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Northern Drainage Channels MW-5B 25 - 30 06/08/96	Northern Drainage Channels MW-6A 6 - 16 07/13/95	Northern Drainage Channels MW-6A 6 - 16 06/09/96	Northern Drainage Channels MW-6B 27.5 - 32.5 07/13/95	Northern Drainage Channels MW-6B 27.5 - 32.5 06/09/96	Northern Drainage Channels MW-6B 27.5 - 32.5 05/20/00
Inorganics							
Aluminum	ug/L	NA	NA	100 U	NA	NA	100 U
Antimony	ug/L	NA	5.00 U	5.00 U	NA	NA	5.00 U
Arsenic	ug/L	NA	5.70	5.00 U	NA	NA	10.0 U
Barium	ug/L	NA	200 U	200 U	NA	NA	108
Beryllium	ug/L	NA	5.00 U	5.00 U	NA	NA	4.00 U
Cadmium	ug/L	NA	0.200 UJ	0.500 UJ	NA	NA	1.00 U
Calcium	ug/L	NA	NA	124,000	NA	NA	72,300
Chromium Total	ug/L	NA	50.0 U	50.0 U	NA	NA	5.00 U
Cobalt	ug/L	NA	50.0 U	50.0 U	NA	NA	10.0 U
Copper	ug/L	NA	25.0 U	25.0 U	NA	NA	25.0 U
Cyanide (total)	ug/L	NA	5.00 U	5.00 U	5.00 U	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	100 U	NA	NA	2,300
Lead	ug/L	NA	3.00 U	3.00 U	NA	NA	3.00 U
Magnesium	ug/L	NA	NA	20,200	NA	NA	21,300
Manganese	ug/L	NA	NA	844 J	NA	NA	378
Mercury	ug/L	NA	0.200 U	0.200 U	NA	NA	0.200 U
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	50.0 U	50.0 U	NA	NA	40.0 U
Potassium	ug/L	NA	NA	8,140	NA	NA	2,000 BJ
Selenium	ug/L	NA	5.00 U	5.00 U	NA	NA	5.00 U
Silver	ug/L	NA	0.500 U	0.500 U	NA	NA	5.00 U
Sodium	ug/L	NA	NA	58,700	NA	NA	185,000
Thallium	ug/L	NA	2.00 U	8.00 UJ	NA	NA	6.10 B
Tin	ug/L	NA	100 U	NA	NA	NA	NA
Vanadium	ug/L	NA	20.0 U	20.0 U	NA	NA	20.0 U
Zinc	ug/L	NA	25.0	20.0 U	NA	NA	20.0 U
Inorganics-Dissolved							
Aluminum (Dissolved)	ug/L	100 U	NA	100 U	2,190	100 U	100 U
Antimony (Dissolved)	ug/L	5 U	5 U	5 U	5 U	5 U	5 U
Arsenic (Dissolved)	ug/L	5 U	4.5	5 U	1 UJ	5 U	10 U
Barium (Dissolved)	ug/L	200 U	200 U	200 U	200 U	200 U	106
Beryllium (Dissolved)	ug/L	5 U	5 U	5 U	5 U	5 U	4 U
Cadmium (Dissolved)	ug/L	0.5 UJ	0.2 UJ	0.5 UJ	0.2 U	0.5 U	1 U
Calcium (Dissolved)	ug/L	66,300	NA	127,000	56,900	74,300	71,100
Chromium Total (Dissolved)	ug/L	50 U	50 U	50 U	107	50 U	5 U
Cobalt (Dissolved)	ug/L	50 U	50 U	50 U	50 U	50 U	10 U
Copper (Dissolved)	ug/L	25 U	25 U	25 U	25 U	25 U	25 U
Cyanide (Dissolved)	ug/L	5 UJ	NA	5 U	NA	5 U	NA
Iron (Dissolved)	ug/L	1,940	NA	100 U	3,880	2,130 J	2,240
Lead (Dissolved)	ug/L	3 U	4.1	3 U	3 U	3 U	3 U
Magnesium (Dissolved)	ug/L	24,700	NA	20,800	20,400	19,900	20,800
Manganese (Dissolved)	ug/L	259	NA	1,040	299	340 J	370
Mercury	ug/L	NA	NA	NA	NA	NA	NA

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TABLE A-2
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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Northern Drainage Channels MW-5B 25 - 30 06/08/96	Northern Drainage Channels MW-6A 6 - 16 07/13/95	Northern Drainage Channels MW-6A 6 - 16 06/09/96	Northern Drainage Channels MW-6B 27.5 - 32.5 07/13/95	Northern Drainage Channels MW-6B 27.5 - 32.5 06/09/96	Northern Drainage Channels MW-6B 27.5 - 32.5 05/20/00
Inorganics-Dissolved (Cont'd.)							
Mercury (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Nickel (Dissolved)	ug/L	50 U	50 U	50 U	50 U	50 U	40 U
Potassium (Dissolved)	ug/L	5,000 U	NA	8,060	5,000 U	5,000 U	2,020 BJ
Selenium	ug/L	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 U	5 U	5 U	5 U	5 U	5 U
Silver (Dissolved)	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	5 U
Sodium (Dissolved)	ug/L	373,000	NA	59,900	90,200	83,800	181,000
Thallium (Dissolved)	ug/L	10 UJ	2 U	8 UJ	2 U	8 UJ	10 U
Tin (Dissolved)	ug/L	NA	100 U	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	20 U	20 U	20 U	20 U	20 U	20 U
Zinc (Dissolved)	ug/L	20 UJ	20 U	20 U	21	20 U	20 U
Miscellaneous							
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	NA	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	NA	NA	NA	NA	NA
Nitrite (as N)	ug/L	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	NA	NA	NA	NA	NA	NA
Sulfide	ug/L	NA	5,000	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	NA	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Northern Drainage Channels MW-5B 25 - 30 06/08/96	Northern Drainage Channels MW-6A 6 - 16 07/13/95	Northern Drainage Channels MW-6A 6 - 16 06/09/96	Northern Drainage Channels MW-6B 27.5 - 32.5 07/13/95	Northern Drainage Channels MW-6B 27.5 - 32.5 06/09/96	Northern Drainage Channels MW-6B 27.5 - 32.5 05/20/00
Gases							
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Northern Drainage Channels TW-206WT 10 - 14 02/07/95	Northern Drainage Channels TW-207WT 02/07/95	Northern Drainage Channels TW-208S1 02/14/95	Northern Drainage Channels TW-208S2 02/14/95	Northern Drainage Channels TW-208WT 02/14/95	Northern Drainage Channels TW-209S1 02/14/95
Inorganics							
Aluminum	ug/L	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved							
Aluminum (Dissolved)	ug/L	100 U	100 U	184	179	109	118
Antimony (Dissolved)	ug/L	5 U	5 U	5 U	5 U	5 U	5 U
Arsenic (Dissolved)	ug/L	1 U	154	1 UJ	1 UJ	1 UJ	1 UJ
Barium (Dissolved)	ug/L	200 U	200 U	200 U	200 U	200 U	200 U
Beryllium (Dissolved)	ug/L	5 U	5 U	5 U	5 U	5 U	5 U
Cadmium (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Calcium (Dissolved)	ug/L	70,000	105,000	138,000	78,300	92,500	128,000
Chromium Total (Dissolved)	ug/L	50 UJ	50 U	50 U	50 U	50 U	50 U
Cobalt (Dissolved)	ug/L	50 U	50 U	50 U	50 U	50 U	50 U
Copper (Dissolved)	ug/L	25 U	25 U	25 U	25 U	25 U	25 U
Cyanide (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA
Iron (Dissolved)	ug/L	100 U	708 J	144 J	225 J	100 U	1,100 J
Lead (Dissolved)	ug/L	3 U	3 U	3 U	3 U	3 U	3 U
Magnesium (Dissolved)	ug/L	17,800	18,500	18,300	12,800	13,500	20,800
Manganese (Dissolved)	ug/L	824	3,300	1,010	356	1,680	1,250
Mercury	ug/L	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Northern Drainage Channels TW-206WT 10 - 14 02/07/95	Northern Drainage Channels TW-207WT 02/07/95	Northern Drainage Channels TW-208S1 02/14/95	Northern Drainage Channels TW-208S2 02/14/95	Northern Drainage Channels TW-208WT 02/14/95	Northern Drainage Channels TW-209S1 02/14/95
Inorganics-Dissolved (Cont'd.)							
Mercury (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Nickel (Dissolved)	ug/L	50 U	50 U	50 U	50 U	50 U	50 U
Potassium (Dissolved)	ug/L	5,000 U	5,000 U	5,000 U	5,000 U	6,870	5,160
Selenium	ug/L	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 U	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
Silver (Dissolved)	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Sodium (Dissolved)	ug/L	40,000	29,000	34,000	178,000	36,600	45,500
Thallium (Dissolved)	ug/L	2 UJ	2 U	2 U	2 UJW	2 U	2 UJ
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	20 U	20 U	20 U	20 U	20 U	20 U
Zinc (Dissolved)	ug/L	190	20 U	481	208	139	749
Miscellaneous							
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	NA	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	NA	NA	NA	NA	NA
Nitrite (as N)	ug/L	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	NA	NA	NA	NA	NA	NA
Sulfide	ug/L	NA	NA	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	NA	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Northern Drainage Channels TW-206WT 10 - 14 02/07/95	Northern Drainage Channels TW-207WT 02/07/95	Northern Drainage Channels TW-208S1 02/14/95	Northern Drainage Channels TW-208S2 02/14/95	Northern Drainage Channels TW-208WT 02/14/95	Northern Drainage Channels TW-209S1 02/14/95
Gases							
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Northern Drainage Channels TW-209S2 02/14/95	Northern Drainage Channels TW-209WT 02/14/95	Parking Lot Area/Buffer Basin B-1BAUG 07/20/95	Parking Lot Area/Buffer Basin B-1CAUG 07/20/95	Parking Lot Area/Buffer Basin B-1DAUG 07/20/95	Parking Lot Area/Buffer Basin B-1R 07/20/95
Inorganics							
Aluminum	ug/L	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved							
Aluminum (Dissolved)	ug/L	103	156	100 U	131	100 U	100 U
Antimony (Dissolved)	ug/L	5 U	5 U	5 U	5 U	5 U	5 U
Arsenic (Dissolved)	ug/L	1 UJ	1 UJ	6.6	6.8	1.8	4.1
Barium (Dissolved)	ug/L	200 U	200 U	200 U	202	200 U	200 U
Beryllium (Dissolved)	ug/L	5 U	5 U	5 U	5 U	5 U	5 U
Cadmium (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Calcium (Dissolved)	ug/L	87,400	82,800	175,000	182,000	106,000	77,300
Chromium Total (Dissolved)	ug/L	50 U	50 U	50 U	50 U	50 U	50 U
Cobalt (Dissolved)	ug/L	50 U	50 U	50 U	50 U	50 U	50 U
Copper (Dissolved)	ug/L	25 U	25 U	25 U	25 U	25 U	25 U
Cyanide (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA
Iron (Dissolved)	ug/L	103 J	110 J	6,070	11,200	11,700	2,870
Lead (Dissolved)	ug/L	3 U	3 U	3 U	3 U	3 U	3 U
Magnesium (Dissolved)	ug/L	17,200	14,000	51,800	46,800	32,500	30,000
Manganese (Dissolved)	ug/L	428	562	572	886	190	400
Mercury	ug/L	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Northern Drainage Channels TW-209S2 02/14/95	Northern Drainage Channels TW-209WT 02/14/95	Parking Lot Area/Buffer Basin B-1BAUG 07/20/95	Parking Lot Area/Buffer Basin B-1CAUG 07/20/95	Parking Lot Area/Buffer Basin B-1DAUG 07/20/95	Parking Lot Area/Buffer Basin B-1R 07/20/95
Inorganics-Dissolved (Cont'd.)							
Mercury (Dissolved)	ug/L	0.2 U	0.2 U	0.2 UJ	0.2 UJ	0.2 UJ	0.2 UJ
Nickel (Dissolved)	ug/L	50 U	50 U	50 U	50 U	50 U	50 U
Potassium (Dissolved)	ug/L	5,000 U	8,440	5,000 U	5,000 U	55,100	15,500
Selenium	ug/L	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 UJ	5 UJ	5 U	5 U	5 U	5 U
Silver (Dissolved)	ug/L	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ
Sodium (Dissolved)	ug/L	147,000	39,100	168,000	152,000	193,000	58,300
Thallium (Dissolved)	ug/L	2 UJW	2 U	2 UJ	2 UJ	2 UJ	2 U
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	20 U	20 U	20 U	20 U	20 U	20 U
Zinc (Dissolved)	ug/L	62	31	43	28	20 U	20 U
Miscellaneous							
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	NA	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	NA	NA	NA	NA	NA
Nitrite (as N)	ug/L	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	NA	NA	NA	NA	NA	NA
Sulfide	ug/L	NA	NA	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	NA	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA

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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Northern Drainage Channels TW-209S2 02/14/95	Northern Drainage Channels TW-209WT 02/14/95	Parking Lot Area/Buffer Basin B-1BAUG 07/20/95	Parking Lot Area/Buffer Basin B-1CAUG 07/20/95	Parking Lot Area/Buffer Basin B-1DAUG 07/20/95	Parking Lot Area/Buffer Basin B-1R 07/20/95
Gases							
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA

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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Parking Lot Area/Buffer Basin MW-130S1 26 - 31 07/20/95	Parking Lot Area/Buffer Basin MW-130S1 26 - 31 06/06/96	Parking Lot Area/Buffer Basin MW-130S2 36 - 41 07/20/95	Parking Lot Area/Buffer Basin MW-130S2 36 - 41 06/06/96	Parking Lot Area/Buffer Basin MW-130S3 46 - 51 07/20/95	Parking Lot Area/Buffer Basin MW-130S3 46 - 51 06/06/96
Inorganics							
Aluminum	ug/L	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	5.00 U	NA	5.00 U	NA	5.00 U	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved							
Aluminum (Dissolved)	ug/L	100 U	NA	100 U	NA	100 U	NA
Antimony (Dissolved)	ug/L	5 U	NA	5 U	NA	5 U	NA
Arsenic (Dissolved)	ug/L	23	NA	6.2	NA	22.1	NA
Barium (Dissolved)	ug/L	316	NA	350	NA	200 U	NA
Beryllium (Dissolved)	ug/L	5 U	NA	5 U	NA	5 U	NA
Cadmium (Dissolved)	ug/L	0.2 UJ	NA	0.2 U	NA	0.2 U	NA
Calcium (Dissolved)	ug/L	184,000	NA	167,000	NA	141,000	NA
Chromium Total (Dissolved)	ug/L	50 U	NA	50 U	NA	50 U	NA
Cobalt (Dissolved)	ug/L	50 U	NA	50 U	NA	50 U	NA
Copper (Dissolved)	ug/L	25 U	NA	25 U	NA	25 U	NA
Cyanide (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA
Iron (Dissolved)	ug/L	28,300	28,000	18,400	20,100	10,000	10,100
Lead (Dissolved)	ug/L	3 U	NA	3 U	NA	3 U	NA
Magnesium (Dissolved)	ug/L	58,300	NA	50,700	NA	47,300	NA
Manganese (Dissolved)	ug/L	438	428	285	320	64	60.3
Mercury	ug/L	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Parking Lot Area/Buffer Basin MW-130S1 26 - 31 07/20/95	Parking Lot Area/Buffer Basin MW-130S1 26 - 31 06/06/96	Parking Lot Area/Buffer Basin MW-130S2 36 - 41 07/20/95	Parking Lot Area/Buffer Basin MW-130S2 36 - 41 06/06/96	Parking Lot Area/Buffer Basin MW-130S3 46 - 51 07/20/95	Parking Lot Area/Buffer Basin MW-130S3 46 - 51 06/06/96
Inorganics-Dissolved (Cont'd.)							
Mercury (Dissolved)	ug/L	0.2 UJ	NA	0.2 UJ	NA	0.2 UJ	NA
Nickel (Dissolved)	ug/L	50 U	NA	50 U	NA	50 U	NA
Potassium (Dissolved)	ug/L	5,000 U	NA	5,000 U	NA	20,300	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 U	NA	5 U	NA	5 U	NA
Silver (Dissolved)	ug/L	0.5 U	NA	0.5 UJ	NA	0.5 UJ	NA
Sodium (Dissolved)	ug/L	78,000	80,600	131,000	137,000	187,000	182,000
Thallium (Dissolved)	ug/L	2 UJ	NA	2 UJ	NA	2 UJ	NA
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	20 U	NA	20 U	NA	20 U	NA
Zinc (Dissolved)	ug/L	20 U	20 U	48	20 U	45	20 U
Miscellaneous							
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	NA	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	NA	NA	NA	NA	NA
Nitrite (as N)	ug/L	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	NA	NA	NA	NA	NA	NA
Sulfide	ug/L	NA	NA	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	NA	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Parking Lot Area/Buffer Basin MW-130S1 26 - 31 07/20/95	Parking Lot Area/Buffer Basin MW-130S1 26 - 31 06/06/96	Parking Lot Area/Buffer Basin MW-130S2 36 - 41 07/20/95	Parking Lot Area/Buffer Basin MW-130S2 36 - 41 06/06/96	Parking Lot Area/Buffer Basin MW-130S3 46 - 51 07/20/95	Parking Lot Area/Buffer Basin MW-130S3 46 - 51 06/06/96
Gases							
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Parking Lot Area/Buffer Basin MW-130WT 3 - 13 07/20/95	Parking Lot Area/Buffer Basin MW-130WT 3 - 13 06/06/96	Previous Metal Feedstock B-6BAUG 24.5 - 29.5 07/21/95	Previous Metal Feedstock B-6BAUG 24.5 - 29.5 06/06/96	Previous Metal Feedstock B-6CAUG 32 - 37 07/21/95	Previous Metal Feedstock B-6CAUG 32 - 37 06/06/96
Inorganics							
Aluminum	ug/L	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	5.00 U	NA	5.40	NA	5.00 U	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved							
Aluminum (Dissolved)	ug/L	100 U	NA	100 U	100 U [100 U]	100 U	100 U
Antimony (Dissolved)	ug/L	5 U	NA	5 U	5 U [5 U]	5 U	5 U
Arsenic (Dissolved)	ug/L	6.6	NA	6.3	5 U [5 U]	1.5	5 U
Barium (Dissolved)	ug/L	373	NA	308	316 [310]	266	304
Beryllium (Dissolved)	ug/L	5 U	NA	5 U	5 U [5 U]	5 U	5 U
Cadmium (Dissolved)	ug/L	0.2 UJ	NA	0.2 UJ	0.5 UJ [0.5 U]	0.2 UJ	0.5 UJ
Calcium (Dissolved)	ug/L	92,900	NA	152,000	171,000 [169,000]	150,000	163,000
Chromium Total (Dissolved)	ug/L	50 U	NA	50 U	50 U [50 U]	50 U	50 U
Cobalt (Dissolved)	ug/L	50 U	NA	50 U	50 U [50 U]	50 U	50 U
Copper (Dissolved)	ug/L	25 U	NA	25 U	25 U [25 U]	25 U	25 U
Cyanide (Dissolved)	ug/L	NA	NA	NA	5 UJ [5 UJ]	NA	5 UJ
Iron (Dissolved)	ug/L	37,800	36,400	24,600	29,100 [28,700]	16,600	17,600
Lead (Dissolved)	ug/L	3 U	NA	3 U	3 U [3 U]	3 U	3 U
Magnesium (Dissolved)	ug/L	40,700	NA	47,500	53,600 [52,300]	45,400	48,700
Manganese (Dissolved)	ug/L	711	717	548	615 [601]	393	477
Mercury	ug/L	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Parking Lot Area/Buffer Basin MW-130WT 3 - 13 07/20/95	Parking Lot Area/Buffer Basin MW-130WT 3 - 13 06/06/96	Previous Metal Feedstock B-6BAUG 24.5 - 29.5 07/21/95	Previous Metal Feedstock B-6BAUG 24.5 - 29.5 06/06/96	Previous Metal Feedstock B-6CAUG 32 - 37 07/21/95	Previous Metal Feedstock B-6CAUG 32 - 37 06/06/96
Inorganics-Dissolved (Cont'd.)							
Mercury (Dissolved)	ug/L	0.2 UJ	NA	0.2 UJ	0.2 U [0.2 U]	0.2 UJ	0.2 U
Nickel (Dissolved)	ug/L	50 U	NA	50 U	50 U [50 U]	50 U	50 U
Potassium (Dissolved)	ug/L	52,700	NA	5,000 U	5,000 U [5,000 U]	5,000 U	5,000 U
Selenium	ug/L	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 U	NA	5 U	5 U [5 U]	5 U	5 U
Silver (Dissolved)	ug/L	0.5 UJ	NA	0.5 U	0.5 U [0.5 U]	0.5 U	0.5 U
Sodium (Dissolved)	ug/L	589,000	633,000	92,700	102,000 [101,000]	84,900	93,900
Thallium (Dissolved)	ug/L	2 UJ	NA	2 UJ	4 UJ [4 UJ]	2 UJ	2 UJ
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	20 U	NA	20 U	20 U [20 U]	20 U	20 U
Zinc (Dissolved)	ug/L	20 U	31.4	20 U	20 U [20 U]	R	20 U
Miscellaneous							
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	NA	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	NA	NA	NA	NA	NA
Nitrite (as N)	ug/L	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	NA	NA	NA	NA	NA	NA
Sulfide	ug/L	NA	NA	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	NA	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Parking Lot Area/Buffer Basin MW-130WT 3 - 13 07/20/95	Parking Lot Area/Buffer Basin MW-130WT 3 - 13 06/06/96	Previous Metal Feedstock B-6BAUG 24.5 - 29.5 07/21/95	Previous Metal Feedstock B-6BAUG 24.5 - 29.5 06/06/96	Previous Metal Feedstock B-6CAUG 32 - 37 07/21/95	Previous Metal Feedstock B-6CAUG 32 - 37 06/06/96
Gases							
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previous Metal Feedstock B-6DAUG 44.5 - 49.5 07/21/95	Previous Metal Feedstock B-6DAUG 44.5 - 49.5 06/06/96	Previous Metal Feedstock B-6R 5.5 - 15.5 07/21/95	Previous Metal Feedstock B-6R 5.5 - 15.5 06/06/96	Previously Proposed Type III Landfill Area MW-3A 2.5 - 12.5 07/27/95
Inorganics						
Aluminum	ug/L	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	5.00 U [5.00 U]	NA	5.00 U	NA	5.00 U
Ferrous Iron	ug/L	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA
Inorganics-Dissolved						
Aluminum (Dissolved)	ug/L	100 U [100 U]	100 U	R	100 U	100 U
Antimony (Dissolved)	ug/L	5 U [5 U]	5 U	5 U	5 U	5 U
Arsenic (Dissolved)	ug/L	4.7 [5.4]	5.7	29.1	33.7	8.2
Barium (Dissolved)	ug/L	200 U [200 U]	205	200 U	200 U	200 U
Beryllium (Dissolved)	ug/L	5 U [5 U]	5 U	5 U	5 U	5 U
Cadmium (Dissolved)	ug/L	0.52 J [15.3 J]	0.5 UJ	0.2 UJ	0.5 U	0.2 UJ
Calcium (Dissolved)	ug/L	180,000 [180,000]	208,000	62,300	75,200	145,000
Chromium Total (Dissolved)	ug/L	50 U [50 U]	50 U	50 U	50 U	50 U
Cobalt (Dissolved)	ug/L	50 U [50 U]	50 U	50 U	50 U	50 U
Copper (Dissolved)	ug/L	25 U [25 U]	25 U	25 U	25 U	25 U
Cyanide (Dissolved)	ug/L	NA	5 UJ	NA	5 UJ	NA
Iron (Dissolved)	ug/L	6,110 [5,990]	6,840	26,000	26,600	10,200
Lead (Dissolved)	ug/L	3 U [3 U]	3 U	3 U	3 U	3 U
Magnesium (Dissolved)	ug/L	63,200 [63,200]	71,300	16,300	18,900	34,000
Manganese (Dissolved)	ug/L	111 [118]	119	879	950	391
Mercury	ug/L	NA	NA	NA	NA	NA

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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previous Metal Feedstock B-6DAUG 44.5 - 49.5 07/21/95	Previous Metal Feedstock B-6DAUG 44.5 - 49.5 06/06/96	Previous Metal Feedstock B-6R 5.5 - 15.5 07/21/95	Previous Metal Feedstock B-6R 5.5 - 15.5 06/06/96	Previously Proposed Type III Landfill Area MW-3A 2.5 - 12.5 07/27/95
Inorganics-Dissolved (Cont'd.)						
Mercury (Dissolved)	ug/L	0.2 UJ [0.2 UJ]	0.2 U	0.2 UJ	0.2 U	0.2 U
Nickel (Dissolved)	ug/L	50 U [50 U]	50 U	50 U	50 U	50 U
Potassium (Dissolved)	ug/L	5,000 U [5,000 U]	5,000 U	11,000	10,800	5,000 U
Selenium	ug/L	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 U [5 U]	5 U	5 U	5 U	5 U
Silver (Dissolved)	ug/L	0.5 U [0.5 U]	0.5 U	0.5 UJ	0.5 U	0.5 U
Sodium (Dissolved)	ug/L	429,000 [433,000]	484,000	107,000	94,300	107,000
Thallium (Dissolved)	ug/L	2 UJ [2 UJ]	8 UJ	2 UJ	2 UJ	2 U
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	20 U [20 U]	20 U	20 U	20 U	20 U
Zinc (Dissolved)	ug/L	R [R]	20 U	R	20 U	20 U
Miscellaneous						
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	NA	NA	NA	NA
Nitrite (as N)	ug/L	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA
Sulfate	ug/L	NA	NA	NA	NA	NA
Sulfide	ug/L	NA	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previous Metal Feedstock B-6DAUG 44.5 - 49.5 07/21/95	Previous Metal Feedstock B-6DAUG 44.5 - 49.5 06/06/96	Previous Metal Feedstock B-6R 5.5 - 15.5 07/21/95	Previous Metal Feedstock B-6R 5.5 - 15.5 06/06/96	Previously Proposed Type III Landfill Area MW-3A 2.5 - 12.5 07/27/95
Gases						
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA

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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area MW-3B 23 - 28 07/27/95	Previously Proposed Type III Landfill Area MW-119S1 24 - 29 07/17/95	Previously Proposed Type III Landfill Area MW-119S1 24 - 29 06/10/96	Previously Proposed Type III Landfill Area MW-119S2 36.5 - 41.5 07/17/95
Inorganics					
Aluminum	ug/L	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA
Cyanide (total)	ug/L	5.00 U	5.00 U	NA	5.00 U
Ferrous Iron	ug/L	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA
Inorganics-Dissolved					
Aluminum (Dissolved)	ug/L	114	100 U	NA	100 U
Antimony (Dissolved)	ug/L	5 U	5 U	NA	5 U
Arsenic (Dissolved)	ug/L	13.1	11.1	NA	27.4
Barium (Dissolved)	ug/L	207	669	NA	648
Beryllium (Dissolved)	ug/L	5 U	5 U	NA	5 U
Cadmium (Dissolved)	ug/L	0.2 UJ	0.2 U	NA	0.2 U
Calcium (Dissolved)	ug/L	187,000	152,000	NA	111,000
Chromium Total (Dissolved)	ug/L	50 U	50 U	NA	50 U
Cobalt (Dissolved)	ug/L	50 U	50 U	NA	50 U
Copper (Dissolved)	ug/L	25 U	25 U	NA	25 U
Cyanide (Dissolved)	ug/L	NA	NA	NA	NA
Iron (Dissolved)	ug/L	14,000	9,740	9,200 J	4,580
Lead (Dissolved)	ug/L	3 U	3 U	NA	3 U
Magnesium (Dissolved)	ug/L	54,100	42,500	NA	36,400
Manganese (Dissolved)	ug/L	242	297	266 J	117
Mercury	ug/L	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area MW-3B 23 - 28 07/27/95	Previously Proposed Type III Landfill Area MW-119S1 24 - 29 07/17/95	Previously Proposed Type III Landfill Area MW-119S1 24 - 29 06/10/96	Previously Proposed Type III Landfill Area MW-119S2 36.5 - 41.5 07/17/95
Inorganics-Dissolved (Cont'd.)					
Mercury (Dissolved)	ug/L	0.2 U	0.2 U	NA	0.2 U
Nickel (Dissolved)	ug/L	50 U	50 U	NA	50 U
Potassium (Dissolved)	ug/L	5,000 U	5,000 U	NA	5,000 U
Selenium	ug/L	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 U	5 U	NA	5 U
Silver (Dissolved)	ug/L	0.5 U	0.5 UW	NA	0.5 UJ
Sodium (Dissolved)	ug/L	127,000	95,700	91,300	187,000
Thallium (Dissolved)	ug/L	2 U	2 UW	NA	2 U
Tin (Dissolved)	ug/L	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	20 U	20 U	NA	20 U
Zinc (Dissolved)	ug/L	20 U	20 U	20 U	20 U
Miscellaneous					
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	NA	NA	NA
Nitrite (as N)	ug/L	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA
Sulfate	ug/L	NA	NA	NA	NA
Sulfide	ug/L	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area MW-3B 23 - 28 07/27/95	Previously Proposed Type III Landfill Area MW-119S1 24 - 29 07/17/95	Previously Proposed Type III Landfill Area MW-119S1 24 - 29 06/10/96	Previously Proposed Type III Landfill Area MW-119S2 36.5 - 41.5 07/17/95
Gases					
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area MW-119S2 36.5 - 41.5 06/10/96	Previously Proposed Type III Landfill Area MW-119WT 2 - 12 07/17/95	Previously Proposed Type III Landfill Area MW-119WT 2 - 12 06/10/96	Previously Proposed Type III Landfill Area MW-120S1 23.8 - 28.8 07/18/95
Inorganics					
Aluminum	ug/L	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	5.00 U	NA	5.00 U
Ferrous Iron	ug/L	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA
Inorganics-Dissolved					
Aluminum (Dissolved)	ug/L	NA	100 U	NA	100 U
Antimony (Dissolved)	ug/L	NA	5 U	NA	5 U
Arsenic (Dissolved)	ug/L	NA	1 U	NA	50.9
Barium (Dissolved)	ug/L	NA	337	NA	790
Beryllium (Dissolved)	ug/L	NA	5 U	NA	5 U
Cadmium (Dissolved)	ug/L	NA	0.2 U	NA	0.2 U
Calcium (Dissolved)	ug/L	NA	275,000	NA	164,000
Chromium Total (Dissolved)	ug/L	NA	50 U	NA	50 U
Cobalt (Dissolved)	ug/L	NA	50 U	NA	50 U
Copper (Dissolved)	ug/L	NA	25 U	NA	25 U
Cyanide (Dissolved)	ug/L	NA	NA	NA	NA
Iron (Dissolved)	ug/L	6,510 J	13,700	14,700 J [14,600 J]	7,840
Lead (Dissolved)	ug/L	NA	3 U	NA	3 U
Magnesium (Dissolved)	ug/L	NA	77,100	NA	49,500
Manganese (Dissolved)	ug/L	98.5 J	1,000	1,010 J [1,010 J]	131
Mercury	ug/L	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area MW-119S2 36.5 - 41.5 06/10/96	Previously Proposed Type III Landfill Area MW-119WT 2 - 12 07/17/95	Previously Proposed Type III Landfill Area MW-119WT 2 - 12 06/10/96	Previously Proposed Type III Landfill Area MW-120S1 23.8 - 28.8 07/18/95
Inorganics-Dissolved (Cont'd.)					
Mercury (Dissolved)	ug/L	NA	0.2 U	NA	0.2 U
Nickel (Dissolved)	ug/L	NA	50 U	NA	50 U
Potassium (Dissolved)	ug/L	NA	5,000 U	NA	5,000 U
Selenium	ug/L	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	5 U	NA	5 U
Silver (Dissolved)	ug/L	NA	2.5 U	NA	0.5 UJ
Sodium (Dissolved)	ug/L	213,000	77,000	80,600 [80,000]	116,000
Thallium (Dissolved)	ug/L	NA	2 U	NA	2 U
Tin (Dissolved)	ug/L	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	20 U	NA	20 U
Zinc (Dissolved)	ug/L	37.6	20 U	20 U [20 U]	20 U
Miscellaneous					
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	NA	NA	NA
Nitrite (as N)	ug/L	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA
Sulfate	ug/L	NA	NA	NA	NA
Sulfide	ug/L	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA

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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area MW-119S2 36.5 - 41.5 06/10/96	Previously Proposed Type III Landfill Area MW-119WT 2 - 12 07/17/95	Previously Proposed Type III Landfill Area MW-119WT 2 - 12 06/10/96	Previously Proposed Type III Landfill Area MW-120S1 23.8 - 28.8 07/18/95
Gases					
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA

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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area MW-120S1 23.8 - 28.8 06/11/96	Previously Proposed Type III Landfill Area MW-120S2 36 - 41 07/18/95	Previously Proposed Type III Landfill Area MW-120S2 36 - 41 06/11/96	Previously Proposed Type III Landfill Area MW-120WT 4 - 14 07/18/95
Inorganics					
Aluminum	ug/L	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	5.00 U [17.0]	NA	5.00 U
Ferrous Iron	ug/L	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA
Inorganics-Dissolved					
Aluminum (Dissolved)	ug/L	NA	100 U [100 U]	NA	100 U
Antimony (Dissolved)	ug/L	NA	5 U [5 U]	NA	5 U
Arsenic (Dissolved)	ug/L	50.2 [48.5]	30.6 [27.7]	26.1	1 U
Barium (Dissolved)	ug/L	NA	693 [675]	NA	331
Beryllium (Dissolved)	ug/L	NA	5 U [5 U]	NA	5 U
Cadmium (Dissolved)	ug/L	NA	0.2 U [0.2 U]	NA	0.2 U
Calcium (Dissolved)	ug/L	NA	142,000 [138,000]	NA	208,000
Chromium Total (Dissolved)	ug/L	NA	50 U [50 U]	NA	50 U
Cobalt (Dissolved)	ug/L	NA	50 U [50 U]	NA	50 U
Copper (Dissolved)	ug/L	NA	25 U [25 U]	NA	25 U
Cyanide (Dissolved)	ug/L	NA	NA	NA	NA
Iron (Dissolved)	ug/L	7,160 [7,140]	4,980 [4,900]	3,890	17,300
Lead (Dissolved)	ug/L	NA	3 U [3 U]	NA	3 U
Magnesium (Dissolved)	ug/L	NA	46,600 [44,900]	NA	56,800
Manganese (Dissolved)	ug/L	112 [113]	120 [114]	78.1	856
Mercury	ug/L	NA	NA	NA	NA

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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area MW-120S1 23.8 - 28.8 06/11/96	Previously Proposed Type III Landfill Area MW-120S2 36 - 41 07/18/95	Previously Proposed Type III Landfill Area MW-120S2 36 - 41 06/11/96	Previously Proposed Type III Landfill Area MW-120WT 4 - 14 07/18/95
Inorganics-Dissolved (Cont'd.)					
Mercury (Dissolved)	ug/L	NA	0.2 U [0.2 U]	NA	0.2 U
Nickel (Dissolved)	ug/L	NA	50 U [50 U]	NA	50 U
Potassium (Dissolved)	ug/L	NA	5,000 U [5,000 U]	NA	5,000 U
Selenium	ug/L	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	5 U [5 U]	NA	5 U
Silver (Dissolved)	ug/L	NA	0.5 U [0.5 U]	NA	0.5 U
Sodium (Dissolved)	ug/L	99,200 [99,800]	182,000 [174,000]	554,000	65,300
Thallium (Dissolved)	ug/L	NA	2 UJ [2 UJ]	NA	2 U
Tin (Dissolved)	ug/L	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	20 U [20 U]	NA	20 U
Zinc (Dissolved)	ug/L	20 U [20 U]	20 U [20 U]	20 U	20 U
Miscellaneous					
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	NA	NA	NA
Nitrite (as N)	ug/L	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA
Sulfate	ug/L	NA	NA	NA	NA
Sulfide	ug/L	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area MW-120S1 23.8 - 28.8 06/11/96	Previously Proposed Type III Landfill Area MW-120S2 36 - 41 07/18/95	Previously Proposed Type III Landfill Area MW-120S2 36 - 41 06/11/96	Previously Proposed Type III Landfill Area MW-120WT 4 - 14 07/18/95
Gases					
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area MW-120WT 4 - 14 06/11/96	Previously Proposed Type III Landfill Area MW-121S1 21.5 - 26.5 07/18/95	Previously Proposed Type III Landfill Area MW-121S1 21.5 - 26.5 06/13/96	Previously Proposed Type III Landfill Area MW-121S2 34.8 - 39.8 07/18/95
Inorganics					
Aluminum	ug/L	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	5.00 U	NA	5.00 U
Ferrous Iron	ug/L	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA
Inorganics-Dissolved					
Aluminum (Dissolved)	ug/L	NA	100 U	NA	100 U
Antimony (Dissolved)	ug/L	NA	5 U	NA	5 U
Arsenic (Dissolved)	ug/L	5 U	53.9	49.7	16.4
Barium (Dissolved)	ug/L	NA	470	NA	360
Beryllium (Dissolved)	ug/L	NA	5 U	NA	5 U
Cadmium (Dissolved)	ug/L	NA	0.2 U	NA	0.2 U
Calcium (Dissolved)	ug/L	NA	154,000	NA	130,000
Chromium Total (Dissolved)	ug/L	NA	50 U	NA	50 U
Cobalt (Dissolved)	ug/L	NA	50 U	NA	50 U
Copper (Dissolved)	ug/L	NA	25 U	NA	25 U
Cyanide (Dissolved)	ug/L	NA	NA	NA	NA
Iron (Dissolved)	ug/L	15,500	10,500	9,460 J	4,090
Lead (Dissolved)	ug/L	NA	3 U	NA	3 U
Magnesium (Dissolved)	ug/L	NA	47,300	NA	46,900
Manganese (Dissolved)	ug/L	741	181	155	69
Mercury	ug/L	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area MW-120WT 4 - 14 06/11/96	Previously Proposed Type III Landfill Area MW-121S1 21.5 - 26.5 07/18/95	Previously Proposed Type III Landfill Area MW-121S1 21.5 - 26.5 06/13/96	Previously Proposed Type III Landfill Area MW-121S2 34.8 - 39.8 07/18/95
Inorganics-Dissolved (Cont'd.)					
Mercury (Dissolved)	ug/L	NA	0.2 U	NA	0.2 U
Nickel (Dissolved)	ug/L	NA	50 U	NA	50 U
Potassium (Dissolved)	ug/L	NA	5,000 U	NA	5,000 U
Selenium	ug/L	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	5 U	NA	5 U
Silver (Dissolved)	ug/L	NA	0.5 U	NA	0.5 U
Sodium (Dissolved)	ug/L	55,500	98,100	89,000	152,000
Thallium (Dissolved)	ug/L	NA	2 U	NA	2 UJ
Tin (Dissolved)	ug/L	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	20 U	NA	20 U
Zinc (Dissolved)	ug/L	20 U	20 U	20 U	20 U
Miscellaneous					
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	NA	NA	NA
Nitrite (as N)	ug/L	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA
Sulfate	ug/L	NA	NA	NA	NA
Sulfide	ug/L	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area MW-120WT 4 - 14 06/11/96	Previously Proposed Type III Landfill Area MW-121S1 21.5 - 26.5 07/18/95	Previously Proposed Type III Landfill Area MW-121S1 21.5 - 26.5 06/13/96	Previously Proposed Type III Landfill Area MW-121S2 34.8 - 39.8 07/18/95
Gases					
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area MW-121S2 34.8 - 39.8 06/13/96	Previously Proposed Type III Landfill Area MW-121WT 3.5 - 13.5 07/18/95	Previously Proposed Type III Landfill Area MW-121WT 3.5 - 13.5 06/04/96	Previously Proposed Type III Landfill Area MW-122S1 18.1 - 23.1 07/18/95
Inorganics					
Aluminum	ug/L	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	5.00 U	NA	5.00 U
Ferrous Iron	ug/L	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA
Inorganics-Dissolved					
Aluminum (Dissolved)	ug/L	NA	100 U	NA	100 U
Antimony (Dissolved)	ug/L	NA	5 U	NA	5 U
Arsenic (Dissolved)	ug/L	18.9	1.3	5 U	1.7
Barium (Dissolved)	ug/L	NA	267	NA	200 U
Beryllium (Dissolved)	ug/L	NA	5 U	NA	5 U
Cadmium (Dissolved)	ug/L	NA	0.2 U	NA	0.2 U
Calcium (Dissolved)	ug/L	NA	162,000	NA	159,000
Chromium Total (Dissolved)	ug/L	NA	50 U	NA	50 U
Cobalt (Dissolved)	ug/L	NA	50 U	NA	50 U
Copper (Dissolved)	ug/L	NA	25 U	NA	25 U
Cyanide (Dissolved)	ug/L	NA	NA	NA	NA
Iron (Dissolved)	ug/L	4,200 J	22,700	20,200 J	14,600
Lead (Dissolved)	ug/L	NA	3 U	NA	3 U
Magnesium (Dissolved)	ug/L	NA	37,800	NA	41,200
Manganese (Dissolved)	ug/L	51	1,120	840	860
Mercury	ug/L	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area MW-121S2 34.8 - 39.8 06/13/96	Previously Proposed Type III Landfill Area MW-121WT 3.5 - 13.5 07/18/95	Previously Proposed Type III Landfill Area MW-121WT 3.5 - 13.5 06/04/96	Previously Proposed Type III Landfill Area MW-122S1 18.1 - 23.1 07/18/95
Inorganics-Dissolved (Cont'd.)					
Mercury (Dissolved)	ug/L	NA	0.2 U	NA	0.2 U
Nickel (Dissolved)	ug/L	NA	50 U	NA	50 U
Potassium (Dissolved)	ug/L	NA	5,000 U	NA	5,000 U
Selenium	ug/L	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	5 U	NA	5 U
Silver (Dissolved)	ug/L	NA	0.5 U	NA	0.5 U
Sodium (Dissolved)	ug/L	171,000	45,300	34,900	115,000
Thallium (Dissolved)	ug/L	NA	2 U	NA	2 UJ
Tin (Dissolved)	ug/L	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	20 U	NA	20 U
Zinc (Dissolved)	ug/L	20 U	20 U	20 U	20 U
Miscellaneous					
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	NA	NA	NA
Nitrite (as N)	ug/L	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA
Sulfate	ug/L	NA	NA	NA	NA
Sulfide	ug/L	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area MW-121S2 34.8 - 39.8 06/13/96	Previously Proposed Type III Landfill Area MW-121WT 3.5 - 13.5 07/18/95	Previously Proposed Type III Landfill Area MW-121WT 3.5 - 13.5 06/04/96	Previously Proposed Type III Landfill Area MW-122S1 18.1 - 23.1 07/18/95
Gases					
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA

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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area MW-122S1 18.1 - 23.1 06/04/96	Previously Proposed Type III Landfill Area MW-122S2 25.8 - 30.8 07/18/95	Previously Proposed Type III Landfill Area MW-122S2 25.8 - 30.8 06/04/96	Previously Proposed Type III Landfill Area MW-122WT 2 - 12 07/18/95
Inorganics					
Aluminum	ug/L	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	5.00 U	NA	5.00 U
Ferrous Iron	ug/L	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA
Inorganics-Dissolved					
Aluminum (Dissolved)	ug/L	NA	100 U	NA	100 U
Antimony (Dissolved)	ug/L	NA	5 U	NA	5 U
Arsenic (Dissolved)	ug/L	NA	6.5	NA	2
Barium (Dissolved)	ug/L	NA	202	NA	215
Beryllium (Dissolved)	ug/L	NA	5 U	NA	5 U
Cadmium (Dissolved)	ug/L	NA	0.2 U	NA	0.2 U
Calcium (Dissolved)	ug/L	NA	185,000	NA	205,000
Chromium Total (Dissolved)	ug/L	NA	50 U	NA	50 U
Cobalt (Dissolved)	ug/L	NA	50 U	NA	50 U
Copper (Dissolved)	ug/L	NA	25 U	NA	25 U
Cyanide (Dissolved)	ug/L	NA	NA	NA	NA
Iron (Dissolved)	ug/L	14,300 J	10,800	9,830 J	16,600
Lead (Dissolved)	ug/L	NA	3 U	NA	3 U
Magnesium (Dissolved)	ug/L	NA	44,700	NA	44,700
Manganese (Dissolved)	ug/L	766	939	352	939
Mercury	ug/L	NA	NA	NA	NA

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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area MW-122S1 18.1 - 23.1 06/04/96	Previously Proposed Type III Landfill Area MW-122S2 25.8 - 30.8 07/18/95	Previously Proposed Type III Landfill Area MW-122S2 25.8 - 30.8 06/04/96	Previously Proposed Type III Landfill Area MW-122WT 2 - 12 07/18/95
Inorganics-Dissolved (Cont'd.)					
Mercury (Dissolved)	ug/L	NA	0.2 U	NA	0.2 U
Nickel (Dissolved)	ug/L	NA	50 U	NA	50 U
Potassium (Dissolved)	ug/L	NA	5,000 U	NA	5,000 U
Selenium	ug/L	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	5 U	NA	5 U
Silver (Dissolved)	ug/L	NA	0.5 U	NA	0.5 U
Sodium (Dissolved)	ug/L	91,100	117,000	100,000	38,900
Thallium (Dissolved)	ug/L	NA	2 UJ	NA	2 UJ
Tin (Dissolved)	ug/L	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	20 U	NA	20 U
Zinc (Dissolved)	ug/L	20 U	R	20 U	R
Miscellaneous					
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	NA	NA	NA
Nitrite (as N)	ug/L	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA
Sulfate	ug/L	NA	NA	NA	NA
Sulfide	ug/L	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area MW-122S1 18.1 - 23.1 06/04/96	Previously Proposed Type III Landfill Area MW-122S2 25.8 - 30.8 07/18/95	Previously Proposed Type III Landfill Area MW-122S2 25.8 - 30.8 06/04/96	Previously Proposed Type III Landfill Area MW-122WT 2 - 12 07/18/95
Gases					
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA

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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area MW-125WT 2.5 - 12.5 07/19/95	Previously Proposed Type III Landfill Area MW-125WT 2.5 - 12.5 06/04/96	Previously Proposed Type III Landfill Area MW-125WT 2.5 - 12.5 05/29/08	Previously Proposed Type III Landfill Area TW-219S1 24 - 28 01/27/95
Inorganics					
Aluminum	ug/L	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA
Cyanide (total)	ug/L	5.00 U	NA	NA	5.00 UJ
Ferrous Iron	ug/L	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA
Inorganics-Dissolved					
Aluminum (Dissolved)	ug/L	100 U	100 U	NA	R
Antimony (Dissolved)	ug/L	5 U	5 U	NA	5 U
Arsenic (Dissolved)	ug/L	1 U	5 U	NA	11
Barium (Dissolved)	ug/L	200 U	200 U	NA	558
Beryllium (Dissolved)	ug/L	5 U	5 U	NA	5 U
Cadmium (Dissolved)	ug/L	0.2 U	0.5 U	NA	0.2 U
Calcium (Dissolved)	ug/L	128,000	98,500	NA	138,000
Chromium Total (Dissolved)	ug/L	50 U	50 U	NA	50 U
Cobalt (Dissolved)	ug/L	50 U	50 U	NA	50 U
Copper (Dissolved)	ug/L	25 U	25 U	NA	25 U
Cyanide (Dissolved)	ug/L	NA	5 U	NA	NA
Iron (Dissolved)	ug/L	100 U	100 UJ	NA	6,700
Lead (Dissolved)	ug/L	3 U	3 U	NA	3 U
Magnesium (Dissolved)	ug/L	36,300	28,300	NA	40,300
Manganese (Dissolved)	ug/L	463	167	NA	290
Mercury	ug/L	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area MW-125WT 2.5 - 12.5 07/19/95	Previously Proposed Type III Landfill Area MW-125WT 2.5 - 12.5 06/04/96	Previously Proposed Type III Landfill Area MW-125WT 2.5 - 12.5 05/29/08	Previously Proposed Type III Landfill Area TW-219S1 24 - 28 01/27/95
Inorganics-Dissolved (Cont'd.)					
Mercury (Dissolved)	ug/L	0.2 U	0.2 U	NA	0.2 U
Nickel (Dissolved)	ug/L	50 U	50 U	NA	50 U
Potassium (Dissolved)	ug/L	5,000 U	5,000 U	NA	5,000 U
Selenium	ug/L	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 U	5 U	NA	5 UJ
Silver (Dissolved)	ug/L	0.5 U	0.5 UJ	NA	0.5 U
Sodium (Dissolved)	ug/L	24,900	16,800	NA	103,000
Thallium (Dissolved)	ug/L	2 UJ	2 UJ	NA	2 UJW
Tin (Dissolved)	ug/L	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	20 U	20 U	NA	20 U
Zinc (Dissolved)	ug/L	R	20 U	NA	978
Miscellaneous					
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	200	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	14.4	NA
Ferrous Iron	ug/L	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	NA	NA	NA
Nitrite (as N)	ug/L	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA
Sulfate	ug/L	NA	NA	NA	NA
Sulfide	ug/L	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	480,000	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area MW-125WT 2.5 - 12.5 07/19/95	Previously Proposed Type III Landfill Area MW-125WT 2.5 - 12.5 06/04/96	Previously Proposed Type III Landfill Area MW-125WT 2.5 - 12.5 05/29/08	Previously Proposed Type III Landfill Area TW-219S1 24 - 28 01/27/95
Gases					
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA

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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area TW-219S2 37.5 - 41.5 01/27/95	Previously Proposed Type III Landfill Area TW-219WT 4 - 8 01/26/95	Previously Proposed Type III Landfill Area TW-220S1 24 - 28 01/30/95	Previously Proposed Type III Landfill Area TW-220S2 38.5 - 42.5 01/30/95
Inorganics					
Aluminum	ug/L	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA
Cyanide (total)	ug/L	5.00 UJ	5.00 UJ	5.00 U	5.00 U
Ferrous Iron	ug/L	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA
Inorganics-Dissolved					
Aluminum (Dissolved)	ug/L	100 U	104	271	114
Antimony (Dissolved)	ug/L	5 U	5 U	5 U	5 U
Arsenic (Dissolved)	ug/L	23.4	1.5	33.1	30.1
Barium (Dissolved)	ug/L	606	200 U	538	1,010
Beryllium (Dissolved)	ug/L	5 U	5 U	5 U	5 U
Cadmium (Dissolved)	ug/L	0.2 U	0.2 U	7.6	0.23
Calcium (Dissolved)	ug/L	121,000	177,000	128,000	120,000
Chromium Total (Dissolved)	ug/L	50 U	50 U	50 U	50 U
Cobalt (Dissolved)	ug/L	50 U	50 U	50 U	50 U
Copper (Dissolved)	ug/L	25 U	25 U	25 U	25 U
Cyanide (Dissolved)	ug/L	NA	NA	NA	NA
Iron (Dissolved)	ug/L	4,440	5,860	5,000	996
Lead (Dissolved)	ug/L	3 U	3 U	3 U	3 U
Magnesium (Dissolved)	ug/L	40,800	59,800	35,900	41,800
Manganese (Dissolved)	ug/L	161	712	183	140
Mercury	ug/L	NA	NA	NA	NA

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area TW-219S2 37.5 - 41.5 01/27/95	Previously Proposed Type III Landfill Area TW-219WT 4 - 8 01/26/95	Previously Proposed Type III Landfill Area TW-220S1 24 - 28 01/30/95	Previously Proposed Type III Landfill Area TW-220S2 38.5 - 42.5 01/30/95
Inorganics-Dissolved (Cont'd.)					
Mercury (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U
Nickel (Dissolved)	ug/L	50 U	50 U	50 U	50 U
Potassium (Dissolved)	ug/L	5,000 U	5,000 U	5,000 U	5,000 U
Selenium	ug/L	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 UJ	5 UJ	5 UJ	5 UJ
Silver (Dissolved)	ug/L	0.5 U	0.5 U	0.5 U	0.5 U
Sodium (Dissolved)	ug/L	149,000	50,400	91,800	165,000
Thallium (Dissolved)	ug/L	2 UJW	2 UJW	2 UJW	2 UJW
Tin (Dissolved)	ug/L	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	20 U	20 U	20 U	20 U
Zinc (Dissolved)	ug/L	1,060	492	1,020	596
Miscellaneous					
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	NA	NA	NA
Nitrite (as N)	ug/L	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA
Sulfate	ug/L	NA	NA	NA	NA
Sulfide	ug/L	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area TW-219S2 37.5 - 41.5 01/27/95	Previously Proposed Type III Landfill Area TW-219WT 4 - 8 01/26/95	Previously Proposed Type III Landfill Area TW-220S1 24 - 28 01/30/95	Previously Proposed Type III Landfill Area TW-220S2 38.5 - 42.5 01/30/95
Gases					
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA

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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area TW-220S3 14 - 18 02/01/95	Previously Proposed Type III Landfill Area TW-220WT 4 - 8 01/30/95	Previously Proposed Type III Landfill Area TW-221S1 23 - 27 01/31/95	Previously Proposed Type III Landfill Area TW-221S2 37 - 40 01/31/95
Inorganics					
Aluminum	ug/L	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA
Cyanide (total)	ug/L	5.00 U	5.00	5.00 U	5.00 U [5.00 U]
Ferrous Iron	ug/L	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA
Inorganics-Dissolved					
Aluminum (Dissolved)	ug/L	100 U	107	100 U	100 U [100 U]
Antimony (Dissolved)	ug/L	5 U	5 U	5 U	5 U [5 U]
Arsenic (Dissolved)	ug/L	1 U	10.4	30.1	1.2 [1.8]
Barium (Dissolved)	ug/L	259	200 U	375	200 U [200 U]
Beryllium (Dissolved)	ug/L	5 U	5 U	5 U	5 U [5 U]
Cadmium (Dissolved)	ug/L	0.2 U	0.25	0.2 U	0.2 U [0.2 U]
Calcium (Dissolved)	ug/L	168,000	182,000	122,000	105,000 [113,000]
Chromium Total (Dissolved)	ug/L	50 U	50 U	50 U	50 U [50 U]
Cobalt (Dissolved)	ug/L	50 U	50 U	50 U	50 U [50 U]
Copper (Dissolved)	ug/L	25 U	25 U	25 U	25 U [25 U]
Cyanide (Dissolved)	ug/L	NA	NA	NA	NA
Iron (Dissolved)	ug/L	13,600	7,100	3,300	169 [170]
Lead (Dissolved)	ug/L	3 U	3 U	3 U	3 U [3 U]
Magnesium (Dissolved)	ug/L	52,500 J	47,600	37,200 J	37,300 J [41,200 J]
Manganese (Dissolved)	ug/L	672	840	160	55 [53]
Mercury	ug/L	NA	NA	NA	NA

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area TW-220S3 14 - 18 02/01/95	Previously Proposed Type III Landfill Area TW-220WT 4 - 8 01/30/95	Previously Proposed Type III Landfill Area TW-221S1 23 - 27 01/31/95	Previously Proposed Type III Landfill Area TW-221S2 37 - 40 01/31/95
Inorganics-Dissolved (Cont'd.)					
Mercury (Dissolved)	ug/L	0.2 UJ	0.2 U	0.2 UJ	0.2 UJ [0.2 UJ]
Nickel (Dissolved)	ug/L	50 U	50 U	50 U	50 U [50 U]
Potassium (Dissolved)	ug/L	5,000 U	5,000 U	5,000 U	5,000 U [5,000 U]
Selenium	ug/L	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 U	5 UJ	5 U	5 U [5 U]
Silver (Dissolved)	ug/L	0.5 U	0.5 U	0.5 U	0.5 U [0.5 U]
Sodium (Dissolved)	ug/L	67,800 J	36,800	78,700 J	142,000 J [157,000 J]
Thallium (Dissolved)	ug/L	2 UJW	2 UJW	2 UJW	2 UJW [2 UJW]
Tin (Dissolved)	ug/L	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	20 U	20 U	20 U	20 U [20 U]
Zinc (Dissolved)	ug/L	98	709	830	461 [395]
Miscellaneous					
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	NA	NA	NA
Nitrite (as N)	ug/L	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA
Sulfate	ug/L	NA	NA	NA	NA
Sulfide	ug/L	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area TW-220S3 14 - 18 02/01/95	Previously Proposed Type III Landfill Area TW-220WT 4 - 8 01/30/95	Previously Proposed Type III Landfill Area TW-221S1 23 - 27 01/31/95	Previously Proposed Type III Landfill Area TW-221S2 37 - 40 01/31/95
Gases					
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area TW-221S3 38 - 42 02/01/95	Previously Proposed Type III Landfill Area TW-221S4 02/01/95	Previously Proposed Type III Landfill Area TW-221WT 3 - 7 01/30/95	Previously Proposed Type III Landfill Area TW-222S1 01/31/95
Inorganics					
Aluminum	ug/L	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA
Cyanide (total)	ug/L	5.30	5.00 U	5.00 U	5.00 U
Ferrous Iron	ug/L	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA
Inorganics-Dissolved					
Aluminum (Dissolved)	ug/L	100 U	100 U	100 U	100 U
Antimony (Dissolved)	ug/L	5 U	5 U	5 U	5 U
Arsenic (Dissolved)	ug/L	3	1 U	4.3	34.1
Barium (Dissolved)	ug/L	222	200 U	200 U	200 U
Beryllium (Dissolved)	ug/L	5 U	5 U	5 U	5 U
Cadmium (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U
Calcium (Dissolved)	ug/L	101,000	123,000	161,000	120,000
Chromium Total (Dissolved)	ug/L	50 U	50 U	50 U	50 U
Cobalt (Dissolved)	ug/L	50 U	50 U	50 U	50 U
Copper (Dissolved)	ug/L	25 U	25 U	25 U	25 U
Cyanide (Dissolved)	ug/L	NA	NA	NA	NA
Iron (Dissolved)	ug/L	173	13,500	8,060	5,050
Lead (Dissolved)	ug/L	3 U	3 U	3 U	3 U
Magnesium (Dissolved)	ug/L	35,500 J	30,100 J	27,300	37,800 J
Manganese (Dissolved)	ug/L	76	866	775	119
Mercury	ug/L	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area TW-221S3 38 - 42 02/01/95	Previously Proposed Type III Landfill Area TW-221S4 02/01/95	Previously Proposed Type III Landfill Area TW-221WT 3 - 7 01/30/95	Previously Proposed Type III Landfill Area TW-222S1 01/31/95
Inorganics-Dissolved (Cont'd.)					
Mercury (Dissolved)	ug/L	0.2 UJ	0.2 UJ	0.2 U	0.2 UJ
Nickel (Dissolved)	ug/L	50 U	50 U	50 U	50 U
Potassium (Dissolved)	ug/L	5,000 U	5,000 U	5,000 U	5,000 U
Selenium	ug/L	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 UJ	5 U	5 UJ	5 U
Silver (Dissolved)	ug/L	0.5 U	0.5 U	0.5 U	0.5 U
Sodium (Dissolved)	ug/L	127,000 J	16,600 J	17,400	106,000 J
Thallium (Dissolved)	ug/L	2 UJW	2 UJ	2 U	2 UJW
Tin (Dissolved)	ug/L	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	20 U	20 U	20 U	20 U
Zinc (Dissolved)	ug/L	226	327	516	R
Miscellaneous					
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	NA	NA	NA
Nitrite (as N)	ug/L	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA
Sulfate	ug/L	NA	NA	NA	NA
Sulfide	ug/L	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area TW-221S3 38 - 42 02/01/95	Previously Proposed Type III Landfill Area TW-221S4 02/01/95	Previously Proposed Type III Landfill Area TW-221WT 3 - 7 01/30/95	Previously Proposed Type III Landfill Area TW-222S1 01/31/95
Gases					
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area TW-222S2 01/31/95	Previously Proposed Type III Landfill Area TW-222S3 01/31/95	Previously Proposed Type III Landfill Area TW-222WT 01/31/95	Previously Proposed Type III Landfill Area TW-227WT 02/03/95
Inorganics					
Aluminum	ug/L	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA
Cyanide (total)	ug/L	5.00 U	5.00 U	5.00 U	5.00 UJ
Ferrous Iron	ug/L	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA
Inorganics-Dissolved					
Aluminum (Dissolved)	ug/L	100 U	100 U	100 U	100 U
Antimony (Dissolved)	ug/L	5 U	5 U	5 U	5 U
Arsenic (Dissolved)	ug/L	17.8	20.5	1 U	1 UJ
Barium (Dissolved)	ug/L	239	200	200 U	200 U
Beryllium (Dissolved)	ug/L	5 U	5 U	5 U	5 U
Cadmium (Dissolved)	ug/L	0.45	0.2 U	0.2 U	3.2
Calcium (Dissolved)	ug/L	122,000	120,000	130,000	153,000
Chromium Total (Dissolved)	ug/L	50 U	50 U	50 U	50 UJ
Cobalt (Dissolved)	ug/L	50 U	50 U	50 U	50 U
Copper (Dissolved)	ug/L	25 U	25 U	25 U	25 U
Cyanide (Dissolved)	ug/L	NA	NA	NA	NA
Iron (Dissolved)	ug/L	1,290	1,750	7,320	100 U
Lead (Dissolved)	ug/L	3 U	3 U	3 U	3 U
Magnesium (Dissolved)	ug/L	42,100 J	38,400 J	30,100 J	38,100
Manganese (Dissolved)	ug/L	108	132	642	109
Mercury	ug/L	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area TW-222S2 01/31/95	Previously Proposed Type III Landfill Area TW-222S3 01/31/95	Previously Proposed Type III Landfill Area TW-222WT 01/31/95	Previously Proposed Type III Landfill Area TW-227WT 02/03/95
Inorganics-Dissolved (Cont'd.)					
Mercury (Dissolved)	ug/L	0.2 UJ	0.2 UJ	0.2 UJ	0.2 U
Nickel (Dissolved)	ug/L	50 U	50 U	50 U	50 U
Potassium (Dissolved)	ug/L	5,000 U	5,000 U	5,000 U	5,000 U
Selenium	ug/L	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 U	5 U	5 UJ	5 U
Silver (Dissolved)	ug/L	0.5 U	0.5 U	0.5 U	0.5 U
Sodium (Dissolved)	ug/L	126,000 J	103,000 J	71,100 J	18,300
Thallium (Dissolved)	ug/L	2 UJW	2 UJW	2 UJW	2 UJ
Tin (Dissolved)	ug/L	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	20 U	20 U	20 U	20 U
Zinc (Dissolved)	ug/L	R	R	420	20
Miscellaneous					
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	NA	NA	NA
Nitrite (as N)	ug/L	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA
Sulfate	ug/L	NA	NA	NA	NA
Sulfide	ug/L	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA

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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area TW-222S2 01/31/95	Previously Proposed Type III Landfill Area TW-222S3 01/31/95	Previously Proposed Type III Landfill Area TW-222WT 01/31/95	Previously Proposed Type III Landfill Area TW-227WT 02/03/95
Gases					
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA

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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area X-13AR 2 - 12 07/18/95	Previously Proposed Type III Landfill Area X-13B 19.9 - 22.9 07/18/95	Previously Proposed Type III Landfill Area X-13CAUG 36.2 - 41.2 07/18/95	Previously Proposed Type III Landfill Area X-14A 2.8 - 5.8 07/18/95
Inorganics					
Aluminum	ug/L	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA
Cyanide (total)	ug/L	5.00 U	5.00 U	5.00 U	5.00 U
Ferrous Iron	ug/L	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA
Inorganics-Dissolved					
Aluminum (Dissolved)	ug/L	100 U	100 U	100 U	100 U
Antimony (Dissolved)	ug/L	5 U	5 U	5 U	5 U
Arsenic (Dissolved)	ug/L	1 U	22.1	17.6	4.2
Barium (Dissolved)	ug/L	320	450	496	200 U
Beryllium (Dissolved)	ug/L	5 U	5 U	5 U	5 U
Cadmium (Dissolved)	ug/L	0.2 U	1	0.2 U	0.2 U
Calcium (Dissolved)	ug/L	230,000	139,000	133,000	156,000
Chromium Total (Dissolved)	ug/L	50 U	50 U	50 U	50 U
Cobalt (Dissolved)	ug/L	50 U	50 U	50 U	50 U
Copper (Dissolved)	ug/L	25 U	25 U	25 U	25 U
Cyanide (Dissolved)	ug/L	NA	NA	NA	NA
Iron (Dissolved)	ug/L	9,960	8,160	4,110	11,800
Lead (Dissolved)	ug/L	3 U	3 U	3 U	3 U
Magnesium (Dissolved)	ug/L	72,800	43,000	43,800	39,500
Manganese (Dissolved)	ug/L	862	248	113	583
Mercury	ug/L	NA	NA	NA	NA

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area X-13AR 2 - 12 07/18/95	Previously Proposed Type III Landfill Area X-13B 19.9 - 22.9 07/18/95	Previously Proposed Type III Landfill Area X-13CAUG 36.2 - 41.2 07/18/95	Previously Proposed Type III Landfill Area X-14A 2.8 - 5.8 07/18/95
Inorganics-Dissolved (Cont'd.)					
Mercury (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U
Nickel (Dissolved)	ug/L	50 U	50 U	50 U	50 U
Potassium (Dissolved)	ug/L	5,000 U	5,000 U	5,000 U	5,000 U
Selenium	ug/L	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 U	5 U	5 U	5 U
Silver (Dissolved)	ug/L	1 U*	0.5 U	0.5 UJ	0.5 U
Sodium (Dissolved)	ug/L	70,500	99,600	175,000	81,900
Thallium (Dissolved)	ug/L	2 U	2 U	2 UJ	2 U
Tin (Dissolved)	ug/L	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	20 U	20 U	20 U	20 U
Zinc (Dissolved)	ug/L	20 U	20 U	20 U	20 U
Miscellaneous					
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	NA	NA	NA
Nitrite (as N)	ug/L	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA
Sulfate	ug/L	NA	NA	NA	NA
Sulfide	ug/L	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area X-13AR 2 - 12 07/18/95	Previously Proposed Type III Landfill Area X-13B 19.9 - 22.9 07/18/95	Previously Proposed Type III Landfill Area X-13CAUG 36.2 - 41.2 07/18/95	Previously Proposed Type III Landfill Area X-14A 2.8 - 5.8 07/18/95
Gases					
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area X-14B 21.3 - 24.3 07/18/95	Previously Proposed Type III Landfill Area X-14CAUG 26 - 31 07/18/95	Quench Pit MW-137WT 4 - 14 07/28/95	Quench Pit QPTW-6 3 - 13 04/12/97	Quench Pit QPTW-7 2.9 - 12.9 04/12/97	Quench Pit QPTW-8 3 - 13 04/12/97	Quench Pit QPTW-9 2.8 - 12.8 04/12/97	Quench Pit QPTW-11 2.9 - 12.9 04/12/97	Quench Pit QPTW-12 2.9 - 12.9 04/12/97	Quench Pit QPTW-13 3.1 - 13.1 04/12/97
Inorganics											
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	5.00 U	5.00 U	5.00 U	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved											
Aluminum (Dissolved)	ug/L	100 U	100 U	126	100 U	100 U	100 U	100 U	100 U	100 U	100 U
Antimony (Dissolved)	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Arsenic (Dissolved)	ug/L	15.9	19.9	9.1	15.8	63.5	8.1	22.5	14.5	9.1	5 U
Barium (Dissolved)	ug/L	200 U	200 U	200 U	200 U	202	200 U	339	200 U	220	200 U
Beryllium (Dissolved)	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Cadmium (Dissolved)	ug/L	0.2 U	0.2 U	0.2 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Calcium (Dissolved)	ug/L	140,000	130,000	22,300	108,000	164,000	129,000	231,000	129,000	132,000	104,000
Chromium Total (Dissolved)	ug/L	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Cobalt (Dissolved)	ug/L	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Copper (Dissolved)	ug/L	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Cyanide (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron (Dissolved)	ug/L	13,400	8,390	100 U	166	20,000	2,520	29,900	4,210	100 U	14,500
Lead (Dissolved)	ug/L	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
Magnesium (Dissolved)	ug/L	42,600	46,400	5,000 U	23,000	32,000	21,600	40,400	23,700	26,500	24,800
Manganese (Dissolved)	ug/L	347	156	20 U	758	1,860	1,380	1,370	2,050	770	625
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area X-14B 21.3 - 24.3 07/18/95	Previously Proposed Type III Landfill Area X-14CAUG 26 - 31 07/18/95	Quench Pit MW-137WT 4 - 14 07/28/95	Quench Pit QPTW-6 3 - 13 04/12/97	Quench Pit QPTW-7 2.9 - 12.9 04/12/97	Quench Pit QPTW-8 3 - 13 04/12/97	Quench Pit QPTW-9 2.8 - 12.8 04/12/97	Quench Pit QPTW-11 2.9 - 12.9 04/12/97	Quench Pit QPTW-12 2.9 - 12.9 04/12/97	Quench Pit QPTW-13 3.1 - 13.1 04/12/97
Inorganics-Dissolved (Cont'd.)											
Mercury (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	NA	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Potassium (Dissolved)	ug/L	5,000 U	5,000 U	20,900	5,000 U	5,060	11,700	8,020	7,940	5,000 U	10,300
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Silver (Dissolved)	ug/L	0.5 U	0.5 U	0.5 U	NA	NA	NA	NA	NA	NA	NA
Sodium (Dissolved)	ug/L	100,000	131,000	796,000	40,900	98,100	30,000	43,200	35,900	43,400	77,300
Thallium (Dissolved)	ug/L	2 UJ	2 UJ	2 UJ	NA	NA	NA	NA	NA	NA	NA
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	20 U	20 U	34	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Zinc (Dissolved)	ug/L	R	20 U	20 U	20 U	20 U	20 U	28.1	20 U	20 U	20 U
Miscellaneous											
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Previously Proposed Type III Landfill Area X-14B 21.3 - 24.3 07/18/95	Previously Proposed Type III Landfill Area X-14CAUG 26 - 31 07/18/95	Quench Pit MW-137WT 4 - 14 07/28/95	Quench Pit QPTW-6 3 - 13 04/12/97	Quench Pit QPTW-7 2.9 - 12.9 04/12/97	Quench Pit QPTW-8 3 - 13 04/12/97	Quench Pit QPTW-9 2.8 - 12.8 04/12/97	Quench Pit QPTW-11 2.9 - 12.9 04/12/97	Quench Pit QPTW-12 2.9 - 12.9 04/12/97	Quench Pit QPTW-13 3.1 - 13.1 04/12/97
Gases											
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Quench Pit TW-228S1 01/31/95	Quench Pit TW-228WT 01/31/95	Quench Pit TW-229S1 02/02/95	Quench Pit TW-229WT 01/31/95	Quench Pit TW-231WT 4 - 7 01/31/95	Railyard Area MW-138WT 14 - 24 07/28/95	Railyard Area MW-138WT 14 - 24 06/10/96	Railyard Area MW-138WT 14 - 24 03/12/97	Railyard Area MW-138WT 14 - 24 05/19/00	Railyard Area MW-138WT 14 - 24 06/03/08	Railyard Area TW-240WT 02/06/95	Saginaw River Area B-7BAUG 37.5 - 42.5 07/17/95
Inorganics													
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	5.00 U	5.00 U	5.00 UJ	5.00 U	5.00 U	5.00 U	NA	NA	NA	NA	5.00 U [5.00 U]	5.00 U
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	29,800	40.0	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	1,600	7.00	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved													
Aluminum (Dissolved)	ug/L	100 U	174	100 U	100 U	100 U	110	100 U	NA	NA	NA	100 U [100 U]	354
Antimony (Dissolved)	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA	NA	NA	5 U [5 U]	5 U
Arsenic (Dissolved)	ug/L	5.1	1.6	4.8 J	1.1	1 U	1 U	5 U	NA	NA	NA	1 UJ [1 UJ]	1 U
Barium (Dissolved)	ug/L	200 U	200 U	200	200 U	200 U	200 U	200 U	NA	NA	NA	200 U [200 U]	200 U
Beryllium (Dissolved)	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA	NA	NA	5 U [5 U]	5 U
Cadmium (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.8	0.2 UJ	0.5 U	NA	NA	NA	0.2 U [0.2 U]	0.2 U
Calcium (Dissolved)	ug/L	79,800	27,600	150,000	109,000	46,500	73,700	80,800	NA	NA	NA	124,000 [117,000]	69,700
Chromium Total (Dissolved)	ug/L	50 U	50 U	50 UJ	50 U	50 U	50 U	50 U	NA	NA	NA	50 UJ [50 UJ]	50 U
Cobalt (Dissolved)	ug/L	50 U	50 U	50 U	50 U	50 U	50 U	50 U	NA	NA	NA	50 U [50 U]	50 U
Copper (Dissolved)	ug/L	25 U	25 U	25 U	25 U	25 U	25 U	25 U	NA	NA	NA	25 U [25 U]	25 U
Cyanide (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
Iron (Dissolved)	ug/L	9,780	423	100 U	126	100 U	100 U	100 U	20	140	NA	100 U [100 U]	786 J
Lead (Dissolved)	ug/L	3 U	3 U	3 U	3 U	3 U	3 U	3 U	NA	NA	NA	3 U [3 U]	3 U
Magnesium (Dissolved)	ug/L	16,400 J	5,300 J	32,000	20,400 J	9,620 J	78,200	99,500	NA	NA	NA	118,000 [114,000]	28,000
Manganese (Dissolved)	ug/L	638	343	483	358	180	86	23.3	7	10	NA	315 [294]	332
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	Quench Pit TW-228S1 01/31/95	Quench Pit TW-228WT 01/31/95	Quench Pit TW-229S1 02/02/95	Quench Pit TW-229WT 01/31/95	Quench Pit TW-231WT 4 - 7 01/31/95	Railyard Area MW-138WT 14 - 24 07/28/95	Railyard Area MW-138WT 14 - 24 06/10/96	Railyard Area MW-138WT 14 - 24 03/12/97	Railyard Area MW-138WT 14 - 24 05/19/00	Railyard Area MW-138WT 14 - 24 06/03/08	Railyard Area TW-240WT 02/06/95	Saginaw River Area B-7BAUG 37.5 - 42.5 07/17/95
Inorganics-Dissolved (Cont'd.)													
Mercury (Dissolved)	ug/L	0.2 UJ	0.2 UJ	0.2 U	0.2 UJ	0.2 UJ	0.2 U	0.2 U	NA	NA	NA	0.2 U [0.2 U]	0.2 U
Nickel (Dissolved)	ug/L	50 U	50 U	50 U	50 U	50 U	50 U	50 U	NA	NA	NA	50 U [50 U]	50 U
Potassium (Dissolved)	ug/L	14,300	12,600	9,500	10,100	23,600	5,000 U	5,000 U	NA	NA	NA	5,000 U [5,100]	5,000 U
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 UJ	5 UJ	5 U	5 UJ	5 UJ	5 U	5 U	NA	NA	NA	5 U [5 U]	5 U
Silver (Dissolved)	ug/L	0.5 U	0.5 UJW	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	NA	0.5 U [0.5 U]	0.5 U
Sodium (Dissolved)	ug/L	91,400 J	138,000 J	66,800	49,500 J	354,000 J	64,300	63,900	NA	NA	NA	91,500 [93,000]	309,000
Thallium (Dissolved)	ug/L	2 UJW	2 UJW	2 UJ	2 UJ	2 UJW	2 UJ	8 UJ	NA	NA	NA	2 UJ [2 UJ]	2 U
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	20 U	20 U	20 U	20 U	20 U	20 U	20 U	NA	NA	NA	20 U [20 U]	20 U
Zinc (Dissolved)	ug/L	R	R	41	335	R	20 U	20 U	NA	NA	NA	20 U [20 U]	20 U
Miscellaneous													
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	200	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	14.4	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	150	20 U	1,000 U	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	330	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	20	NA	NA	NA
Nitrate (as N)	ug/L	NA	NA	NA	NA	NA	NA	80 U	680	NA	NA	NA	NA
Nitrite (as N)	ug/L	NA	NA	NA	NA	NA	NA	70 U	70 U	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	50 U	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	NA	NA	NA	NA	NA	NA	5,000 U	210,000	170,000	NA	NA	NA
Sulfide	ug/L	NA	NA	NA	NA	NA	NA	200 U	1,300	2,000 U	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	810,000	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA	56,200	2,000 U	2,000 U	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	Quench Pit TW-228S1 01/31/95	Quench Pit TW-228WT 01/31/95	Quench Pit TW-229S1 02/02/95	Quench Pit TW-229WT 01/31/95	Quench Pit TW-231WT 4 - 7 01/31/95	Railyard Area MW-138WT 14 - 24 07/28/95	Railyard Area MW-138WT 14 - 24 06/10/96	Railyard Area MW-138WT 14 - 24 03/12/97	Railyard Area MW-138WT 14 - 24 05/19/00	Railyard Area MW-138WT 14 - 24 06/03/08	Railyard Area TW-240WT 02/06/95	Saginaw River Area B-7BAUG 37.5 - 42.5 07/17/95
Gases													
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA	44,900	44,100	23,240	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA	400 U	400 U	400 U	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA	5,900	2,370	7,400	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA	200 U	70 U	70 U	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	18,200	18,900	17,800	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area B-7BAUG 37.5 - 42.5 06/11/96	Saginaw River Area B-7CAUG 44.3 - 49.3 07/17/95	Saginaw River Area B-7CAUG 44.3 - 49.3 06/11/96	Saginaw River Area B-7CAUG 44.3 - 49.3 05/20/00	Saginaw River Area B-7R 5 - 15 07/17/95	Saginaw River Area B-7R 5 - 15 06/13/96	Saginaw River Area B-7R 5 - 15 06/29/99	Saginaw River Area B-7R 5 - 15 09/02/99	Saginaw River Area B-7R 5 - 15 05/20/00
Inorganics										
Aluminum	ug/L	NA	NA	NA	NA	NA	247 [312]	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	5.00 U	5.00 U [5.00 U]	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	9.40	11.5 [8.30]	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	200 U	200 U [200 U]	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	5.00 U	5.00 U [5.00 U]	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	0.200 UJ	0.500 U [0.500 U]	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	65,300 [64,700]	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	50.0 U	50.0 U [50.0 U]	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	50.0 U	50.0 U [50.0 U]	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	25.0 U	25.0 U [25.0 U]	NA	NA	NA
Cyanide (total)	ug/L	NA	38.0	NA	5.00 U [5.00 U]	5.00 U	5.00 U [5.00 U]	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	1,700 J [718 J]	290	NA	NA
Lead	ug/L	NA	NA	NA	NA	6.00	3.00 U [3.00 U]	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	11,000 [10,800]	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	512 [397]	340	NA	NA
Mercury	ug/L	NA	NA	NA	NA	0.200 U	0.200 U [0.200 U]	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	50.0 U	50.0 U [50.0 U]	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	5,000 U [5,000 U]	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	5.00 U	5.00 U [5.00 U]	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	0.500 U	0.500 U [0.500 UJ]	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	28,600 [29,600]	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	2.00 U	2.00 UJ [2.00 UJ]	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	100 U	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	20.0 U	20.0 U [20.0 U]	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	38.0	35.1 U [20.0 U]	NA	NA	NA
Inorganics-Dissolved										
Aluminum (Dissolved)	ug/L	100 U	279	332	NA	NA	100 U [100 U]	100 UJ	100 U	NA
Antimony (Dissolved)	ug/L	5 U	5 U	5 U	NA	5 U	5 U [5 U]	2 U	2.6	NA
Arsenic (Dissolved)	ug/L	5 U	1 UJ	5 U	NA	7.4	5.7 [5.3]	5.7	4.8	NA
Barium (Dissolved)	ug/L	200 U	200 U	200 U	NA	200 U	200 U [200 U]	81	73	NA
Beryllium (Dissolved)	ug/L	5 U	5 U	5 U	NA	5 U	5 U [5 U]	3 UM	1.6	NA
Cadmium (Dissolved)	ug/L	0.5 U	0.2 U	0.5 U	NA	0.2 UJ	0.5 U [0.5 U]	0.97	0.2 U	NA
Calcium (Dissolved)	ug/L	68,400	229,000	103,000	NA	NA	64,300 [58,100]	76,000	77,000 J	NA
Chromium Total (Dissolved)	ug/L	50 U	50 U	50 U	NA	50 U	50 U [50 U]	2 U	2 U	NA
Cobalt (Dissolved)	ug/L	50 U	50 U	50 U	NA	50 U	50 U [50 U]	20 U	20 U	NA
Copper (Dissolved)	ug/L	25 U	25 U	25 U	NA	25 U	25 U [25 U]	20 U	7 U	NA
Cyanide (Dissolved)	ug/L	5 U	NA	5 U	5 U [5 U]	NA	5 U [5 U]	5 U	5 U	NA
Iron (Dissolved)	ug/L	487	628 J	100 U	NA	NA	186 J [202 J]	R	530	370
Lead (Dissolved)	ug/L	3 U	3 U	3 U	NA	3 U	3 U [3 U]	1.2	22	NA
Magnesium (Dissolved)	ug/L	26,400	5,000 U	11,300	NA	NA	10,300 [9,340]	12,000	12,000 J	NA
Manganese (Dissolved)	ug/L	314	20 U	20 U	NA	NA	267 [234]	280	320	540
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area B-7BAUG 37.5 - 42.5 06/11/96	Saginaw River Area B-7CAUG 44.3 - 49.3 07/17/95	Saginaw River Area B-7CAUG 44.3 - 49.3 06/11/96	Saginaw River Area B-7CAUG 44.3 - 49.3 05/20/00	Saginaw River Area B-7R 5 - 15 07/17/95	Saginaw River Area B-7R 5 - 15 06/13/96	Saginaw River Area B-7R 5 - 15 06/29/99	Saginaw River Area B-7R 5 - 15 09/02/99	Saginaw River Area B-7R 5 - 15 05/20/00
Inorganics-Dissolved (Cont'd.)										
Mercury (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	NA
Nickel (Dissolved)	ug/L	50 U	50 U	50 U	NA	50 U	50 U [50 U]	5 U	50 U	NA
Potassium (Dissolved)	ug/L	5,000 U	17,700	8,230	NA	NA	5,000 U [5,000 U]	3,700 J	5,000	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 U	5 U	5 U	NA	5 U	5 U [5 U]	2 U	2 U	NA
Silver (Dissolved)	ug/L	0.5 UJ	0.5 U	0.5 UJ	NA	0.5 U	0.5 U [0.5 UJ]	0.5 UJ	0.5 UJ	NA
Sodium (Dissolved)	ug/L	293,000	416,000	351,000	NA	NA	30,200 [26,900]	83,000 J	72,000 J	NA
Thallium (Dissolved)	ug/L	4 UJ	2 UJ	4 UJ	NA	2 U	2 UJ [2 UJ]	1 U	2 U	NA
Tin (Dissolved)	ug/L	NA	NA	NA	NA	100 U	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	20 U	20 U	20 U	NA	20 U	20 U [20 U]	10 U	10 UJ	NA
Zinc (Dissolved)	ug/L	20 U	20 U	20 U	NA	20 U	43.8 U [20 U]	20 U	13	NA
Miscellaneous										
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	2,400	2,200	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA	2,000 U	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA	NA	1,000 U	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA	190,000	200,000	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA	28,000	NA	NA
Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	190,000 D	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	NA	NA	NA	NA	172.8	158.4	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1,000 U
Hardness	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	410
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	550
Nitrate (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA	10 U	NA
Nitrite (as N)	ug/L	NA	NA	NA	NA	NA	NA	10 U	10 U [10 U]	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	120
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	5,000 U	NA	NA
pH	S.U.	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA	300	NA	NA
Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	65,000	54,000
Sulfide	ug/L	NA	NA	NA	NA	500 U	NA	1,000 U	NA	2,000 U
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA	100 UJ [100 UJ]	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	NA	NA	NA	NA	NA	640,000 [640,000]	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	2,800	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA	7,100	6,200	7,500
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA	NA	4,000 [1,000]	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	Saginaw River Area B-7BAUG 37.5 - 42.5 06/11/96	Saginaw River Area B-7CAUG 44.3 - 49.3 07/17/95	Saginaw River Area B-7CAUG 44.3 - 49.3 06/11/96	Saginaw River Area B-7CAUG 44.3 - 49.3 05/20/00	Saginaw River Area B-7R 5 - 15 07/17/95	Saginaw River Area B-7R 5 - 15 06/13/96	Saginaw River Area B-7R 5 - 15 06/29/99	Saginaw River Area B-7R 5 - 15 09/02/99	Saginaw River Area B-7R 5 - 15 05/20/00
Gases										
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	19,520
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	400 U
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	660
Ethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	70 U
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	17,200

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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	Saginaw River Area B-7R 5 - 15 11/28/07	Saginaw River Area MW-6CAUG 37.5 - 42.5 07/13/95	Saginaw River Area MW-6CAUG 37.5 - 42.5 06/09/96	Saginaw River Area MW-6DAUG 47.8 - 52.8 07/13/95	Saginaw River Area MW-6DAUG 47.8 - 52.8 06/09/96	Saginaw River Area MW-107S1 12.5 - 17.5 07/12/95	Saginaw River Area MW-107S1 12.5 - 17.5 06/07/96	Saginaw River Area MW-107S1 12.5 - 17.5 06/06/08	Saginaw River Area MW-107S2 21.4 - 26.4 07/12/95
Inorganics										
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	5.00 U	NA	5.00 U	NA	5.00 U	NA	NA	5.00 U
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	878	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved										
Aluminum (Dissolved)	ug/L	NA	100 U	194 U	100 U	104 U	100 U	134 U	NA	100 U
Antimony (Dissolved)	ug/L	NA	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 U
Arsenic (Dissolved)	ug/L	NA	1 UJ	5 U	1 UJ	5 U	1.1	5 U	NA	1
Barium (Dissolved)	ug/L	NA	200 U	200 U	200 U	200 U	200 U	200 U	NA	200 U
Beryllium (Dissolved)	ug/L	NA	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 U
Cadmium (Dissolved)	ug/L	NA	0.2 U	0.5 UJ	0.2 U	0.5 UJ	0.2 U	0.5 UJ	NA	0.2 U
Calcium (Dissolved)	ug/L	NA	104,000	87,000	211,000	201,000	35,400	45,200	NA	113,000
Chromium Total (Dissolved)	ug/L	NA	50 U	50 U	50 U	50 U	50 U	50 U	NA	50 U
Cobalt (Dissolved)	ug/L	NA	50 U	50 U	50 U	50 U	50 U	50 U	NA	50 U
Copper (Dissolved)	ug/L	NA	25 U	25 U	25 U	25 U	25 U	25 U	NA	25 U
Cyanide (Dissolved)	ug/L	NA	NA	5 U	NA	5 U	NA	5 UJ	NA	NA
Iron (Dissolved)	ug/L	NA	129	133	100 U	274	1,010	819 U	NA	1,670
Lead (Dissolved)	ug/L	NA	3 U	3 U	3 U	3 U	3 U	3 U	NA	3 U
Magnesium (Dissolved)	ug/L	NA	5,000 U	20,700	42,900	55,300	8,530	10,800	NA	25,700
Manganese (Dissolved)	ug/L	NA	20 U	41.8	53	153 J	202	249	NA	823
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	Saginaw River Area B-7R 5 - 15 11/28/07	Saginaw River Area MW-6CAUG 37.5 - 42.5 07/13/95	Saginaw River Area MW-6CAUG 37.5 - 42.5 06/09/96	Saginaw River Area MW-6DAUG 47.8 - 52.8 07/13/95	Saginaw River Area MW-6DAUG 47.8 - 52.8 06/09/96	Saginaw River Area MW-107S1 12.5 - 17.5 07/12/95	Saginaw River Area MW-107S1 12.5 - 17.5 06/07/96	Saginaw River Area MW-107S1 12.5 - 17.5 06/06/08	Saginaw River Area MW-107S2 21.4 - 26.4 07/12/95
Inorganics-Dissolved (Cont'd.)										
Mercury (Dissolved)	ug/L	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U
Nickel (Dissolved)	ug/L	NA	50 U	50 U	50 U	50 U	50 U	50 U	NA	50 U
Potassium (Dissolved)	ug/L	NA	21,500	10,100	8,500	10,700	5,000 U	5,000 U	NA	5,000 U
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 U
Silver (Dissolved)	ug/L	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	NA	0.5 U
Sodium (Dissolved)	ug/L	NA	456,000	472,000	659,000	715,000	101,000	106,000	NA	105,000
Thallium (Dissolved)	ug/L	NA	2 UJ	16 UJ	2 UJ	16 UJ	2 UJ	2 UJ	NA	2 UJ
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	20 U	20 U	20 U	20 U	20 U	20 U	NA	20 U
Zinc (Dissolved)	ug/L	NA	21	20 U	20 U	20 U	20 U	20 U	NA	20 U
Miscellaneous										
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	1,700	NA	NA	NA	NA	NA	NA	1,200 J	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	122.4	NA	NA	NA	NA	NA	NA	86.4 J	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	200	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	440,000	NA	NA	NA	NA	NA	NA	800,000 J	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area B-7R 5 - 15 11/28/07	Saginaw River Area MW-6CAUG 37.5 - 42.5 07/13/95	Saginaw River Area MW-6CAUG 37.5 - 42.5 06/09/96	Saginaw River Area MW-6DAUG 47.8 - 52.8 07/13/95	Saginaw River Area MW-6DAUG 47.8 - 52.8 06/09/96	Saginaw River Area MW-107S1 12.5 - 17.5 07/12/95	Saginaw River Area MW-107S1 12.5 - 17.5 06/07/96	Saginaw River Area MW-107S1 12.5 - 17.5 06/06/08	Saginaw River Area MW-107S2 21.4 - 26.4 07/12/95
Gases										
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area MW-107S2 21.4 - 26.4 06/07/96	Saginaw River Area MW-107WT 4 - 9 07/12/95	Saginaw River Area MW-107WT 4 - 9 06/07/96	Saginaw River Area MW-107WT 4 - 9 04/03/08	Saginaw River Area MW-108S1 8.8 - 13.8 07/13/95	Saginaw River Area MW-108S1 8.8 - 13.8 06/08/96	Saginaw River Area MW-108S1 8.8 - 13.8 06/29/99	Saginaw River Area MW-108S1 8.8 - 13.8 09/02/99	Saginaw River Area MW-108S1 8.8 - 13.8 05/23/00
Inorganics										
Aluminum	ug/L	NA	2,020	234	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	5.00 U	5.00 U	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	2.30	5.00 U	0.950 J	NA	NA	NA	NA	NA
Barium	ug/L	NA	200 U	200 U	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	5.00 U	5.00 U	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	0.200 UJ	0.500 UJ	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	87,100	84,200	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	50.0 U	50.0 U	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	50.0 U	50.0 U	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	25.0 U	25.0 U	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	5.00 U	5.00 U	NA	5.00 U	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	5,310	511 J	NA	NA	NA	NA	NA	NA
Lead	ug/L	NA	3.20	3.00 U	NA	NA	NA	NA	NA	NA
Magnesium	ug/L	NA	15,800	13,000	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	446	38.3 J	379	NA	NA	NA	NA	NA
Mercury	ug/L	NA	0.200 U	0.200 U	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	50.0 U	50.0 U	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	7,380	6,190	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	5.00 U	5.00 U	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	0.500 U	0.500 U	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	69,000	56,600	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	2.00 UJ	2.00 UJ	1.00 U	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	20.0 U	20.0 U	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	R	20.0 U	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved										
Aluminum (Dissolved)	ug/L	100 U	110	100 U	NA	187	100 U	130 J	100 U	NA
Antimony (Dissolved)	ug/L	5 U	5 U	5 U	NA	5 U	5 U	2 U	2.8	NA
Arsenic (Dissolved)	ug/L	5 U	1.6	5 U	NA	11.4	5 U	7	6.7	NA
Barium (Dissolved)	ug/L	200 U	200 U	200 U	NA	200 U	200 U	56	42	NA
Beryllium (Dissolved)	ug/L	5 U	5 U	5 U	NA	5 U	5 U	9.5	1 U	NA
Cadmium (Dissolved)	ug/L	0.5 U	0.2 UJ	0.5 UJ	NA	0.2 U	0.5 U	0.28	0.2 U	NA
Calcium (Dissolved)	ug/L	109,000	87,800	83,800	NA	70,900	75,000	44,000	39,000 J	NA
Chromium Total (Dissolved)	ug/L	50 U	50 U	50 U	NA	50 U	50 U	2 U	2 U	NA
Cobalt (Dissolved)	ug/L	50 U	50 U	50 U	NA	50 U	50 U	20 U	20 U	NA
Copper (Dissolved)	ug/L	25 U	25 U	25 U	NA	25 U	25 U	20 U	8 U	NA
Cyanide (Dissolved)	ug/L	5 UJ	NA	5 UJ	NA	NA	5 UJ	5 U	5 U	NA
Iron (Dissolved)	ug/L	R	109	100 U	NA	2,770	4,300	3,200	2,200	6,500
Lead (Dissolved)	ug/L	3 U	3 U	3 U	NA	3 U	3 U	1 U	1 U	NA
Magnesium (Dissolved)	ug/L	29,400	15,300	12,900	NA	13,000	12,600	9,300	6,900 J	NA
Manganese (Dissolved)	ug/L	738	295	20 U	NA	1,230	923	1,100	1,400	1,100
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	Saginaw River Area MW-107S2 21.4 - 26.4 06/07/96	Saginaw River Area MW-107WT 4 - 9 07/12/95	Saginaw River Area MW-107WT 4 - 9 06/07/96	Saginaw River Area MW-107WT 4 - 9 04/03/08	Saginaw River Area MW-108S1 8.8 - 13.8 07/13/95	Saginaw River Area MW-108S1 8.8 - 13.8 06/08/96	Saginaw River Area MW-108S1 8.8 - 13.8 06/29/99	Saginaw River Area MW-108S1 8.8 - 13.8 09/02/99	Saginaw River Area MW-108S1 8.8 - 13.8 05/23/00
Inorganics-Dissolved (Cont'd.)										
Mercury (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	NA
Nickel (Dissolved)	ug/L	50 U	50 U	50 U	NA	50 U	50 U	5 U	50 U	NA
Potassium (Dissolved)	ug/L	5,000 U	7,380	5,820	NA	6,110	8,230	7,700 J	9,100	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 U	5 U	5 U	NA	5 U	5 U	2 U	2 U	NA
Silver (Dissolved)	ug/L	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 UJ	0.5 UJ	NA
Sodium (Dissolved)	ug/L	109,000	70,300	55,100	NA	41,600	48,000	88,000 J	59,000 J	NA
Thallium (Dissolved)	ug/L	4 UJ	2 UJ	4 UJ	NA	2 UJ	2 UJ	1 U	1 U	NA
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	20 U	20 U	20 U	NA	20 U	20 U	10 U	10 UJ	NA
Zinc (Dissolved)	ug/L	20 U	20 U	20 U	NA	20 U	20 UJ	20 U	22 JM	NA
Miscellaneous										
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	NA	300	NA	NA	1,000	910	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA	NA	1,000 U	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA	85,000	110,000	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	150,000 D	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	NA	21.6	NA	NA	72	65.52	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	7,100
Hardness	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	6,800
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1,100
Nitrate (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA	15	NA
Nitrite (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	50 U
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	30 J	NA	NA	NA	NA	NA
Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	46,000	100,000
Sulfide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	2,000
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA	5,100	4,200	4,500
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	Saginaw River Area MW-107S2 21.4 - 26.4 06/07/96	Saginaw River Area MW-107WT 4 - 9 07/12/95	Saginaw River Area MW-107WT 4 - 9 06/07/96	Saginaw River Area MW-107WT 4 - 9 04/03/08	Saginaw River Area MW-108S1 8.8 - 13.8 07/13/95	Saginaw River Area MW-108S1 8.8 - 13.8 06/08/96	Saginaw River Area MW-108S1 8.8 - 13.8 06/29/99	Saginaw River Area MW-108S1 8.8 - 13.8 09/02/99	Saginaw River Area MW-108S1 8.8 - 13.8 05/23/00
Gases										
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	14,360
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	400 U
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1,230
Ethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	0.676
Ethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	0.479
Methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	37.34
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	21,970

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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area MW-108S1 8.8 - 13.8 06/03/08	Saginaw River Area MW-108S2 22 - 27 07/13/95	Saginaw River Area MW-108S2 22 - 27 06/08/96	Saginaw River Area MW-108S2 22 - 27 06/06/08	Saginaw River Area MW-108S3 39.8 - 44.8 07/13/95	Saginaw River Area MW-108S3 39.8 - 44.8 06/08/96	Saginaw River Area MW-108S4 45 - 50 07/13/95	Saginaw River Area MW-108S4 45 - 50 06/08/96	Saginaw River Area MW-108S4 45 - 50 05/21/00
Inorganics										
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	100 U
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5.00 U
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	3.40 B
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	670
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	4.00 U
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1.00 U
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	402,000
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5.00 U
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	10.0 U
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	25.0 U
Cyanide (total)	ug/L	NA	5.00 U	NA	NA	5.00 U	NA	5.00 U	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	104 U
Lead	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	3.00 U
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	500 J
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	15.0 U
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	0.200 U
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	40.0 U
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	156,000
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5.00 U
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5.00 U
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	408,000
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	3.80 B
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	20.0 U
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	20.0 U
Inorganics-Dissolved										
Aluminum (Dissolved)	ug/L	NA	100 U	225	NA	100 U	150	192	163 U	100 U
Antimony (Dissolved)	ug/L	NA	5 U	5 U	NA	5 U	5 U	5 U	5 U	5 U
Arsenic (Dissolved)	ug/L	NA	1 UJ	5 U	NA	1 UJ	5 U	1 UJ	5 U	10 U
Barium (Dissolved)	ug/L	NA	200 U	200 U	NA	208	257	216	244	731
Beryllium (Dissolved)	ug/L	NA	5 U	5 U	NA	5 U	5 U	5 U	5 U	4 U
Cadmium (Dissolved)	ug/L	NA	0.2 U	0.5 UJ	NA	0.2 U	0.5 UJ	0.2 U	0.5 UJ	1 U
Calcium (Dissolved)	ug/L	NA	44,200	50,500	NA	181,000	231,000	315,000	267,000	449,000
Chromium Total (Dissolved)	ug/L	NA	50 U	50 U	NA	50 U	50 U	50 U	50 U	4.4 BMBE
Cobalt (Dissolved)	ug/L	NA	50 U	50 U	NA	50 U	50 U	50 U	50 U	10 U
Copper (Dissolved)	ug/L	NA	25 U	25 U	NA	25 U	25 U	31	25 U	25 U
Cyanide (Dissolved)	ug/L	NA	NA	5 UJ	NA	NA	5 UJ	NA	5 U	NA
Iron (Dissolved)	ug/L	NA	1,060	1,380	NA	1,440	1,950	2,970	1,770 J	100 U
Lead (Dissolved)	ug/L	NA	3 U	3 U	NA	3 U	3 U	3 U	3 U	3 U
Magnesium (Dissolved)	ug/L	NA	13,300	13,800	NA	69,000	82,200	133,000	126,000	100 U
Manganese (Dissolved)	ug/L	NA	200	233	NA	732	917	695	702 J	15 U
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area MW-108S1 8.8 - 13.8 06/03/08	Saginaw River Area MW-108S2 22 - 27 07/13/95	Saginaw River Area MW-108S2 22 - 27 06/08/96	Saginaw River Area MW-108S2 22 - 27 06/06/08	Saginaw River Area MW-108S3 39.8 - 44.8 07/13/95	Saginaw River Area MW-108S3 39.8 - 44.8 06/08/96	Saginaw River Area MW-108S4 45 - 50 07/13/95	Saginaw River Area MW-108S4 45 - 50 06/08/96	Saginaw River Area MW-108S4 45 - 50 05/21/00
Inorganics-Dissolved (Cont'd.)										
Mercury (Dissolved)	ug/L	NA	0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Nickel (Dissolved)	ug/L	NA	50 U	50 U	NA	50 U	50 U	50 U	50 U	40 U
Potassium (Dissolved)	ug/L	NA	5,000 U	5,000 U	NA	5,640	6,360	29,600	16,200	171,000 J
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	5 U	5 U	NA	5 U	5 U	5 U	5 U	5 U
Silver (Dissolved)	ug/L	NA	0.5 U	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	5 U
Sodium (Dissolved)	ug/L	NA	306,000	234,000	NA	725,000	837,000	1,340,000	1,010,000	431,000
Thallium (Dissolved)	ug/L	NA	2 UJ	2 UJ	NA	2 UJ	16 UJ	4 UJ	16 UJ	10 U
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	20 U	20 U	NA	20 U	20 U	20 U	20 U	20 U
Zinc (Dissolved)	ug/L	NA	20 U	21.7 U	NA	20 U	20 U	66	20 U	20 U
Miscellaneous										
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	NA	3,500 J	NA	NA	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	NA	252 J	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	1,100,000	NA	NA	910,000 J	NA	NA	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area MW-108S1 8.8 - 13.8 06/03/08	Saginaw River Area MW-108S2 22 - 27 07/13/95	Saginaw River Area MW-108S2 22 - 27 06/08/96	Saginaw River Area MW-108S2 22 - 27 06/06/08	Saginaw River Area MW-108S3 39.8 - 44.8 07/13/95	Saginaw River Area MW-108S3 39.8 - 44.8 06/08/96	Saginaw River Area MW-108S4 45 - 50 07/13/95	Saginaw River Area MW-108S4 45 - 50 06/08/96	Saginaw River Area MW-108S4 45 - 50 05/21/00
Gases										
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area MW-108WT 2.5 - 7.5 07/13/95	Saginaw River Area MW-108WT 2.5 - 7.5 06/08/96	Saginaw River Area MW-108WT 2.5 - 7.5 05/21/00	Saginaw River Area MW-108WT 2.5 - 7.5 06/02/04	Saginaw River Area MW-109WT 3 - 8 07/13/95	Saginaw River Area MW-109WT 3 - 8 06/12/96	Saginaw River Area MW-109WT 3 - 8 05/21/00	Saginaw River Area MW-110WT 06/12/96	Saginaw River Area MW-110WT 12/10/97
Inorganics										
Aluminum	ug/L	6,930	100 U	144	NA	16,400	100 U	100 U	111	NA
Antimony	ug/L	5.00 U	5.00 U	5.00 U	NA	5.00 U	5.00 U	5.00 U	5.00 U	NA
Arsenic	ug/L	8.30 J	5.00 U	10.0 U	NA	15.6 J	5.00 U	10.0 U	7.30	NA
Barium	ug/L	200 U	200 U	45.6 B	NA	200 U	200 U	24.9 B	200 U	NA
Beryllium	ug/L	5.00 U	5.00 U	4.00 U	NA	5.00 U	5.00 U	4.00 U	5.00 U	NA
Cadmium	ug/L	1.10	0.500 UJ	1.00 U	NA	0.550	0.500 U	1.00 U	0.500 U	NA
Calcium	ug/L	99,700	86,700	67,900	NA	98,100	68,100	66,800	65,300	NA
Chromium Total	ug/L	50.0 UJ	50.0 U	5.00 U	NA	60.0 J	50.0 U	5.00 U	50.0 U	NA
Cobalt	ug/L	50.0 U	50.0 U	10.0 U	NA	50.0 U	50.0 U	10.0 U	50.0 U	NA
Copper	ug/L	25.0 U	25.0 U	25.0 U	NA	42.0	25.0 U	25.0 U	25.0 U	NA
Cyanide (total)	ug/L	5.00 U	5.00 U	NA	NA	5.00 U	5.00 U	NA	5.00 U	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	58,300	2,380	3,810	NA	29,900	298 J	100 U	3,090 J	NA
Lead	ug/L	41.5	3.00 U	3.00 U	NA	54.1	3.00 U	3.00 U	3.00 U	NA
Magnesium	ug/L	17,100	14,600	13,900	NA	24,600	11,500	12,600	11,900	NA
Manganese	ug/L	4,800	933	1,230	NA	2,830	1,020	15.0 U	460	NA
Mercury	ug/L	0.200 U	0.200 U	0.200 U	NA	0.200 U	0.200 U	0.200 U	0.200 U	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	50.0 U	50.0 U	40.0 U	NA	51.0	50.0 U	40.0 U	50.0 U	NA
Potassium	ug/L	9,540	10,300	8,810 J	NA	8,950	7,110	10,100 J	5,000 U	NA
Selenium	ug/L	5.00 U	5.00 U	5.00 U	NA	5.00 U	5.00 U	5.00 U	5.00 U	NA
Silver	ug/L	0.500 U	0.500 U	5.00 U	NA	0.500 U	0.500 UJ	5.00 U	0.500 U	NA
Sodium	ug/L	59,600	57,700	102,000	NA	34,900	38,900	78,000	33,700	NA
Thallium	ug/L	2.00 U	4.00 UJ	10.0 U	1.00 U	2.00 UJ	2.00 UJ	10.0 U	2.00 UJ	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	20.0 UJ	20.0 U	20.0 U	NA	31.0	20.0 U	20.0 U	20.0 U	NA
Zinc	ug/L	77.0	20.0 UJ	20.0 U	NA	115	20.0 U	20.0 U	96.2 U	NA
Inorganics-Dissolved										
Aluminum (Dissolved)	ug/L	100 U	100 U	100 U	NA	100 U	100 U	100 U	100 U	NA
Antimony (Dissolved)	ug/L	5 U	5 U	1.7 B	NA	5 U	5 U	2.2 B	5 U	NA
Arsenic (Dissolved)	ug/L	1 UJ	5 U	10 U	NA	16.9	5 U	10 U	5.6	5 U
Barium (Dissolved)	ug/L	200 U	200 U	44.8 B	NA	200 U	200 U	24.3 B	200 U	540
Beryllium (Dissolved)	ug/L	5 U	5 U	4 U	NA	5 U	5 U	4 U	5 U	NA
Cadmium (Dissolved)	ug/L	0.2 U	0.5 UJ	1 U	NA	0.2 U	0.5 U	1 U	0.5 U	0.5 U
Calcium (Dissolved)	ug/L	95,800	90,200	67,500	NA	67,500	72,400	65,200	66,600	NA
Chromium Total (Dissolved)	ug/L	50 U	50 U	5 U	NA	50 U	50 U	1.2 BMBE	50 U	50 U
Cobalt (Dissolved)	ug/L	50 U	50 U	10 U	NA	50 U	50 U	10 U	50 U	NA
Copper (Dissolved)	ug/L	25 U	25 U	25 U	NA	25 U	25 U	25 U	25 U	25 U
Cyanide (Dissolved)	ug/L	NA	5 UJ	NA	NA	NA	5 U	NA	5 U	NA
Iron (Dissolved)	ug/L	1,900	2,210	3,580	NA	130	363 J	100 U	2,530 J	3,500
Lead (Dissolved)	ug/L	3 U	3 U	3 U	NA	14.6	3 U	3 U	3 U	3 U
Magnesium (Dissolved)	ug/L	17,400	15,200	13,900	NA	11,600	12,300	12,300	12,000	NA
Manganese (Dissolved)	ug/L	1,260	968	1,220	NA	734	1,000	15 U	459	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area MW-108WT 2.5 - 7.5 07/13/95	Saginaw River Area MW-108WT 2.5 - 7.5 06/08/96	Saginaw River Area MW-108WT 2.5 - 7.5 05/21/00	Saginaw River Area MW-108WT 2.5 - 7.5 06/02/04	Saginaw River Area MW-109WT 3 - 8 07/13/95	Saginaw River Area MW-109WT 3 - 8 06/12/96	Saginaw River Area MW-109WT 3 - 8 05/21/00	Saginaw River Area MW-110WT 06/12/96	Saginaw River Area MW-110WT 12/10/97
Inorganics-Dissolved (Cont'd.)										
Mercury (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Nickel (Dissolved)	ug/L	50 U	50 U	40 U	NA	50 U	50 U	40 U	50 U	50 U
Potassium (Dissolved)	ug/L	9,780	10,800	8,750 J	NA	6,430	7,340	9,950 J	5,000 U	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 U	5 U	5 U	NA	5 U	5 U	5 U	5 U	5.6
Silver (Dissolved)	ug/L	0.5 U	0.5 U	5 U	NA	0.5 U	0.5 UJ	5 U	0.5 U	0.5 U
Sodium (Dissolved)	ug/L	61,800	60,100	101,000	NA	32,100	40,000	76,700	34,800	NA
Thallium (Dissolved)	ug/L	2 U	4 UJ	5.3 B	NA	2 U	2 UJ	10 U	2 UJ	NA
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	20 U	20 U	20 U	NA	20 U	20 U	20 U	20 U	NA
Zinc (Dissolved)	ug/L	20 U	20 UJ	20 U	NA	20 U	72.9 U	20 U	22 U	21
Miscellaneous										
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area MW-108WT 2.5 - 7.5 07/13/95	Saginaw River Area MW-108WT 2.5 - 7.5 06/08/96	Saginaw River Area MW-108WT 2.5 - 7.5 05/21/00	Saginaw River Area MW-108WT 2.5 - 7.5 06/02/04	Saginaw River Area MW-109WT 3 - 8 07/13/95	Saginaw River Area MW-109WT 3 - 8 06/12/96	Saginaw River Area MW-109WT 3 - 8 05/21/00	Saginaw River Area MW-110WT 06/12/96	Saginaw River Area MW-110WT 12/10/97
Gases										
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area MW-110WTR 10 - 15 04/02/08	Saginaw River Area MW-111S1 12 - 17 07/14/95	Saginaw River Area MW-111S1 12 - 17 06/12/96	Saginaw River Area MW-111S2 25 - 30 07/13/95	Saginaw River Area MW-111S2 25 - 30 06/10/96	Saginaw River Area MW-111S2 25 - 30 06/06/08	Saginaw River Area MW-111S3 36 - 41 07/13/95	Saginaw River Area MW-111S3 36 - 41 06/10/96	Saginaw River Area MW-111S4 46 - 51 07/14/95
Inorganics										
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	5.00 U	NA	5.00 U [5.00 U]	NA	NA	5.00 U	NA	5.00 U
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	2,680	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved										
Aluminum (Dissolved)	ug/L	NA	100 U	100 U	100 U [100 U]	142 U	NA	138	1,300	158
Antimony (Dissolved)	ug/L	NA	5 U	5 U	5 U [5 U]	5 U	NA	5 U	5 U	5 U
Arsenic (Dissolved)	ug/L	NA	18.5	6.5	1 UJ [1 J]	5 U	NA	1 UJ	5 U	1 U
Barium (Dissolved)	ug/L	NA	214	200 U	200 U [200 U]	200 U	NA	438	200 U	381
Beryllium (Dissolved)	ug/L	NA	5 U	5 U	5 U [5 U]	5 U	NA	5 U	5 U	5 U
Cadmium (Dissolved)	ug/L	NA	0.2 U	0.5 U	0.2 U [0.2 U]	0.5 UJ	NA	0.2 U	0.5 UJ	0.2 U
Calcium (Dissolved)	ug/L	NA	148,000	62,800	64,100 [59,000]	75,500	NA	572,000	168,000	603,000
Chromium Total (Dissolved)	ug/L	NA	50 U	50 U	50 U [50 U]	50 U	NA	50 U	50 U	50 U
Cobalt (Dissolved)	ug/L	NA	50 U	50 U	50 U [50 U]	50 U	NA	50 U	50 U	50 U
Copper (Dissolved)	ug/L	NA	25 U	25 U	25 U [25 U]	25 U	NA	25 U	25 U	25 U
Cyanide (Dissolved)	ug/L	NA	NA	5 U	NA	5 U	NA	NA	5 U	NA
Iron (Dissolved)	ug/L	NA	11,500	3,610 J	3,240 [3,070]	4,390 J	NA	100 U	179	100 U
Lead (Dissolved)	ug/L	NA	5.6	3 U	3 U [3 U]	3 U	NA	3 U	3 U	3 U
Magnesium (Dissolved)	ug/L	NA	25,600	11,300	17,600 [16,200]	20,300	NA	5,000 U	5,000 U	5,000 U
Manganese (Dissolved)	ug/L	NA	1,900	597	340 [316]	404 J	NA	20 U	20 U	20 U
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area MW-110WTR 10 - 15 04/02/08	Saginaw River Area MW-111S1 12 - 17 07/14/95	Saginaw River Area MW-111S1 12 - 17 06/12/96	Saginaw River Area MW-111S2 25 - 30 07/13/95	Saginaw River Area MW-111S2 25 - 30 06/10/96	Saginaw River Area MW-111S2 25 - 30 06/06/08	Saginaw River Area MW-111S3 36 - 41 07/13/95	Saginaw River Area MW-111S3 36 - 41 06/10/96	Saginaw River Area MW-111S4 46 - 51 07/14/95
Inorganics-Dissolved (Cont'd.)										
Mercury (Dissolved)	ug/L	NA	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	NA	0.2 U	0.2 U	0.2 U
Nickel (Dissolved)	ug/L	NA	50 U	50 U	50 U [50 U]	50 U	NA	50 U	50 U	50 U
Potassium (Dissolved)	ug/L	NA	7,260	5,000 U	5,000 U [5,000 U]	5,000 U	NA	75,200	9,800	37,900
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	5 U	5 U	5 U [5 U]	5 U	NA	5 U	5 U	5 U
Silver (Dissolved)	ug/L	NA	0.5 U	0.5 UJ	0.5 U [0.5 U]	0.5 U	NA	0.5 U	0.5 U	0.5 U
Sodium (Dissolved)	ug/L	NA	71,700	28,700	54,000 [51,900]	50,000	NA	202,000	228,000	542,000
Thallium (Dissolved)	ug/L	NA	2 U	2 UJ	2 U [2 U]	8 UJ	NA	2 UJ	16 UJ	2 UJ
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	20 U	20 U	20 U [20 U]	20 U	NA	20 U	20 U	20 U
Zinc (Dissolved)	ug/L	NA	R	20 U	32 [41]	42.1 U	NA	20 U	28.8 U	R
Miscellaneous										
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	90 J	NA	NA	NA	NA	1,400 J	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	6.48 J	NA	NA	NA	NA	100.8 J	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	200	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	1,500,000	NA	NA	NA	NA	670,000 J	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area MW-110WTR 10 - 15 04/02/08	Saginaw River Area MW-111S1 12 - 17 07/14/95	Saginaw River Area MW-111S1 12 - 17 06/12/96	Saginaw River Area MW-111S2 25 - 30 07/13/95	Saginaw River Area MW-111S2 25 - 30 06/10/96	Saginaw River Area MW-111S2 25 - 30 06/06/08	Saginaw River Area MW-111S3 36 - 41 07/13/95	Saginaw River Area MW-111S3 36 - 41 06/10/96	Saginaw River Area MW-111S4 46 - 51 07/14/95
Gases										
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area MW-111S4 46 - 51 06/10/96	Saginaw River Area MW-111S4 46 - 51 07/02/99	Saginaw River Area MW-111S4 46 - 51 09/02/99	Saginaw River Area MW-111S4 46 - 51 05/23/00	Saginaw River Area MW-111WT 5.5 - 10.5 07/14/95	Saginaw River Area MW-111WT 5.5 - 10.5 06/12/96	Saginaw River Area MW-111WT 5.5 - 10.5 06/30/99	Saginaw River Area MW-111WT 5.5 - 10.5 09/02/99	Saginaw River Area MW-111WT 5.5 - 10.5 05/19/00
Inorganics										
Aluminum	ug/L	NA	NA	NA	NA	19,700	100 U	NA	NA	100 U
Antimony	ug/L	NA	NA	NA	NA	5.00 U	5.00 U	NA	NA	5.00 U
Arsenic	ug/L	NA	NA	NA	NA	24.0 J	30.7	NA	NA	11.4
Barium	ug/L	NA	NA	NA	NA	401	614	NA	NA	356
Beryllium	ug/L	NA	NA	NA	NA	5.00 U	5.00 U	NA	NA	4.00 U
Cadmium	ug/L	NA	NA	NA	NA	2.30	0.500 UJ	NA	NA	1.00 U
Calcium	ug/L	NA	NA	NA	NA	309,000	375,000	NA	NA	321,000
Chromium Total	ug/L	NA	NA	NA	NA	117 J	50.0 U	NA	NA	5.00 U
Cobalt	ug/L	NA	NA	NA	NA	50.0 U	50.0 U	NA	NA	10.0 U
Copper	ug/L	NA	NA	NA	NA	39.6	25.0 U	NA	NA	25.0 U
Cyanide (total)	ug/L	NA	NA	NA	NA	5.00 U	5.00 U	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	100 U	NA	NA	54,600	40,200 J	18,000	NA	18,300
Lead	ug/L	NA	NA	NA	NA	27.8	3.00 U	NA	NA	3.00 U
Magnesium	ug/L	NA	NA	NA	NA	94,200	61,100	NA	NA	47,800
Manganese	ug/L	NA	9.30	NA	NA	3,740	4,440	2,100	NA	2,560
Mercury	ug/L	NA	NA	NA	NA	0.200 U	0.200 U	NA	NA	0.200 U
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	96.8	50.0 U	NA	NA	40.0 U
Potassium	ug/L	NA	NA	NA	NA	9,120	10,900	NA	NA	15,500
Selenium	ug/L	NA	NA	NA	NA	5.00 U	5.00 U	NA	NA	5.00 U
Silver	ug/L	NA	NA	NA	NA	0.500 U	0.500 U	NA	NA	5.00 U
Sodium	ug/L	NA	NA	NA	NA	67,100	160,000	NA	NA	171,000
Thallium	ug/L	NA	NA	NA	NA	2.00 UJ	8.00 UJ	NA	NA	7.90 B
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	45.2	20.0 U	NA	NA	20.0 U
Zinc	ug/L	NA	NA	NA	NA	R	20.0 U	NA	NA	20.0 U
Inorganics-Dissolved										
Aluminum (Dissolved)	ug/L	100 U	300 U	100 U	NA	100 U	100 U	100 UJ	100 U	100 U
Antimony (Dissolved)	ug/L	5 U	2.1	2 U	NA	5 U	5 U	2	2 U	5 U
Arsenic (Dissolved)	ug/L	5 U	1 U	1 U	NA	18	11.1	14	17	9.8 B
Barium (Dissolved)	ug/L	200 U	80	76	NA	202	451	260	300	376
Beryllium (Dissolved)	ug/L	5 U	7 U	1.1 JM	NA	5 U	5 U	1 U	3.1 JM	4 U
Cadmium (Dissolved)	ug/L	0.5 UJ	0.6 U	0.2 U	NA	0.2 U	0.5 U	0.2 U	0.2 U	1 U
Calcium (Dissolved)	ug/L	382,000	230,000	200,000 J	NA	141,000	330,000	150,000	180,000 J	379,000
Chromium Total (Dissolved)	ug/L	50 U	2 U	2 U	NA	50 U	50 U	2 U	2 U	5 U
Cobalt (Dissolved)	ug/L	50 U	20 U	20 U	NA	50 U	50 U	20 U	20 U	10 U
Copper (Dissolved)	ug/L	25 U	20 U	7 U	NA	25 U	25 U	20 U	7 U	25 U
Cyanide (Dissolved)	ug/L	5 U	5 U	5 U	NA	NA	5 U	5 U	5 U	NA
Iron (Dissolved)	ug/L	100 U	100 U	20 U	50 U	10,700	21,400 J	8,900 J	16,000	14,400
Lead (Dissolved)	ug/L	3 U	1 U	1 U	NA	3	3 U	1.8	1 U	3 U
Magnesium (Dissolved)	ug/L	5,000 U	9,100	12,000 J	NA	23,600	54,000	27,000	29,000 J	54,300
Manganese (Dissolved)	ug/L	20 U	3 U	20 U	10 U	1,800	3,910	2,000 J	2,200	2,340
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area MW-111S4 46 - 51 06/10/96	Saginaw River Area MW-111S4 46 - 51 07/02/99	Saginaw River Area MW-111S4 46 - 51 09/02/99	Saginaw River Area MW-111S4 46 - 51 05/23/00	Saginaw River Area MW-111WT 5.5 - 10.5 07/14/95	Saginaw River Area MW-111WT 5.5 - 10.5 06/12/96	Saginaw River Area MW-111WT 5.5 - 10.5 06/30/99	Saginaw River Area MW-111WT 5.5 - 10.5 09/02/99	Saginaw River Area MW-111WT 5.5 - 10.5 05/19/00
Inorganics-Dissolved (Cont'd.)										
Mercury (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Nickel (Dissolved)	ug/L	50 U	6.3	50 UJM	NA	50 U	50 U	5 U	50 U	40 U
Potassium (Dissolved)	ug/L	17,700	10,000	11,000	NA	6,550	9,910	5,600 J	8,100	18,500
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 U	3	2 U	NA	5 U	5 U	2 U	2 U	5 U
Silver (Dissolved)	ug/L	0.5 U	0.5 U	0.5 UJ	NA	0.5 U	0.5 UJ	0.5 UJ	0.5 U	5 U
Sodium (Dissolved)	ug/L	550,000	130,000	110,000 J	NA	65,300	142,000	74,000 J	69,000 J	196,000
Thallium (Dissolved)	ug/L	16 UJ	1 U	1 U	NA	2 U	2 UJ	1 U	1 U	7.6 B
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	20 U	10 U	10 UJ	NA	20 U	20 U	10 U	10 U	20 U
Zinc (Dissolved)	ug/L	20 U	67	13	NA	R	20 U	20 U	13	20 U
Miscellaneous										
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	9,000 D	8,600 D	NA	NA	NA	2,700	3,100	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	3,500 J	NA	NA	NA	NA	2,000 U	NA	NA
Bromide	ug/L	NA	NA	1,000 U	NA	NA	NA	NA	1,000	NA
Calcium Carbonate	ug/L	NA	72,000	80,000	NA	NA	NA	340,000	370,000	NA
Chemical Oxygen Demand (COD)	ug/L	NA	70,000	NA	NA	NA	NA	43,000	NA	NA
Chloride	ug/L	NA	NA	1,200,000 D	NA	NA	NA	NA	250,000 D	NA
Estimated Un-ionized Ammonia	ug/L	NA	648 D	619.2 D	NA	NA	NA	194.4	223.2	NA
Ferrous Iron	ug/L	NA	NA	NA	1,000 U	NA	NA	NA	NA	20,000
Hardness	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	50 U	NA	NA	NA	NA	20,000
Manganese	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA	2,500
Nitrate (as N)	ug/L	NA	NA	10 U	NA	NA	NA	NA	10 U	NA
Nitrite (as N)	ug/L	NA	NA	31	NA	NA	NA	10 U	21	NA
Nitrogen	ug/L	NA	24	NA	50 U	NA	NA	NA	NA	700
Oil and Grease	ug/L	NA	5,000 U	NA	NA	NA	NA	5,000 U	NA	NA
pH	S.U.	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	10	NA	NA	NA	NA	1,000	NA	NA
Sulfate	ug/L	NA	NA	72,000	95,000	NA	NA	NA	120,000 D	180,000
Sulfide	ug/L	NA	1,000 U	NA	5,000 U	NA	NA	1,000 U	NA	2,000 U
Surfactants	ug/L	NA	100 UJ	100 UJ	NA	NA	NA	NA	100 UJ	NA
Total Dissolved Solids (TDS)	ug/L	NA	2,700,000	2,700,000	NA	NA	NA	NA	1,100,000	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	8,700	NA	NA	NA	NA	2,900	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	5,700	5,400	7,300	NA	NA	11,000	13,000	12,000
Total Suspended Solids (TSS)	ug/L	NA	94,000	50,000	NA	NA	NA	NA	33,000	NA

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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area MW-111S4 46 - 51 06/10/96	Saginaw River Area MW-111S4 46 - 51 07/02/99	Saginaw River Area MW-111S4 46 - 51 09/02/99	Saginaw River Area MW-111S4 46 - 51 05/23/00	Saginaw River Area MW-111WT 5.5 - 10.5 07/14/95	Saginaw River Area MW-111WT 5.5 - 10.5 06/12/96	Saginaw River Area MW-111WT 5.5 - 10.5 06/30/99	Saginaw River Area MW-111WT 5.5 - 10.5 09/02/99	Saginaw River Area MW-111WT 5.5 - 10.5 05/19/00
Gases										
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	600 U	NA	NA	NA	NA	99,290
Carbon monoxide	ug/L	NA	NA	NA	400 U	NA	NA	NA	NA	400 U
Dissolved Oxygen	ug/L	NA	NA	NA	2,620	NA	NA	NA	NA	780
Ethane	ug/L	NA	NA	NA	0.905	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	0.865	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	83.47	NA	NA	NA	NA	100
Nitrogen	ug/L	NA	NA	NA	20,580	NA	NA	NA	NA	18,700

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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area MW-111WT 5.5 - 10.5 06/02/04	Saginaw River Area MW-111WT 5.5 - 10.5 08/26/05	Saginaw River Area MW-111WT 5.5 - 10.5 04/02/08	Saginaw River Area MW-112WT 3.5 - 8.5 07/17/95	Saginaw River Area MW-112WT 3.5 - 8.5 06/12/96	Saginaw River Area MW-112WT 3.5 - 8.5 06/30/99	Saginaw River Area MW-112WT 3.5 - 8.5 09/02/99	Saginaw River Area MW-112WT 3.5 - 8.5 05/20/00	Saginaw River Area MW-112WT 3.5 - 8.5 06/03/04
Inorganics										
Aluminum	ug/L	NA	NA	NA	11,500	100 U	NA	NA	100 U	NA
Antimony	ug/L	NA	NA	NA	5.00 U	5.00 U	NA	NA	5.00 U	NA
Arsenic	ug/L	NA	NA	NA	3.30	5.00 U	NA	NA	10.0 U	NA
Barium	ug/L	NA	NA	NA	200 U	200 U	NA	NA	55.5 B	NA
Beryllium	ug/L	NA	NA	NA	5.00 U	5.00 U	NA	NA	4.00 U	NA
Cadmium	ug/L	NA	NA	NA	0.590	0.500 U	NA	NA	1.00 U	NA
Calcium	ug/L	NA	NA	NA	166,000	259,000	NA	NA	128,000	NA
Chromium Total	ug/L	NA	NA	NA	81.0	50.0 U	NA	NA	5.00 U	NA
Cobalt	ug/L	NA	NA	NA	50.0 U	50.0 U	NA	NA	10.0 U	NA
Copper	ug/L	NA	NA	NA	54.0	25.0 U	NA	NA	25.0 U	NA
Cyanide (total)	ug/L	NA	NA	NA	5.00 U	5.00 U	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	69,400 J	3,630 J	NA	NA	7,000	NA
Lead	ug/L	NA	NA	NA	47.7	3.00 U	NA	NA	3.00 U	NA
Magnesium	ug/L	NA	NA	NA	28,600	45,600	NA	NA	27,500	NA
Manganese	ug/L	1,090	1,680 [1,520]	1,080 [1,140]	4,420	1,120	NA	NA	2,060	NA
Mercury	ug/L	NA	NA	NA	0.200 U	0.200 U	NA	NA	0.200 U	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	50.0 U	50.0 U	NA	NA	40.0 U	NA
Potassium	ug/L	NA	NA	NA	8,190	22,500	NA	NA	9,880 J	NA
Selenium	ug/L	NA	NA	NA	5.00 U	5.00 U	NA	NA	5.00 U	NA
Silver	ug/L	NA	NA	NA	0.500 U	0.500 UJ	NA	NA	5.00 U	NA
Sodium	ug/L	NA	NA	NA	71,000	174,000	NA	NA	281,000	NA
Thallium	ug/L	NA	NA	NA	2.00 U	2.00 UJ	NA	NA	4.00 B	1.00 U
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	26.0	20.0 U	NA	NA	20.0 U	NA
Zinc	ug/L	NA	NA	NA	R	20.0 U	NA	NA	20.0 U	NA
Inorganics-Dissolved										
Aluminum (Dissolved)	ug/L	NA	NA	NA	100 U	100 U	110 J	100 U	100 U	NA
Antimony (Dissolved)	ug/L	NA	NA	NA	5 U	5 U	2 U	2.9	5 U	NA
Arsenic (Dissolved)	ug/L	NA	NA	NA	1 U	5 U	1 U	1 U	4 B	NA
Barium (Dissolved)	ug/L	NA	NA	NA	200 U	200 U	52	38	57.7 B	NA
Beryllium (Dissolved)	ug/L	NA	NA	NA	5 U	5 U	3 UM	1 U	4 U	NA
Cadmium (Dissolved)	ug/L	NA	NA	NA	0.4 U	0.5 U	0.42	0.2 U	1 U	NA
Calcium (Dissolved)	ug/L	NA	NA	NA	142,000	263,000	80,000	64,000 J	135,000	NA
Chromium Total (Dissolved)	ug/L	NA	NA	NA	50 U	50 U	2 U	2 U	5 U	NA
Cobalt (Dissolved)	ug/L	NA	NA	NA	50 U	50 U	20 U	20 U	10 U	NA
Copper (Dissolved)	ug/L	NA	NA	NA	25 U	25 U	20 U	7 U	25 U	NA
Cyanide (Dissolved)	ug/L	NA	NA	NA	NA	5 U	5 U	5 U	NA	NA
Iron (Dissolved)	ug/L	NA	NA	NA	400 J	3,310 J	5,900	4,500	6,580	NA
Lead (Dissolved)	ug/L	NA	NA	NA	3 U	3 U	8.7	2	3 U	NA
Magnesium (Dissolved)	ug/L	NA	NA	NA	24,500	46,400	14,000	9,700 J	29,300	NA
Manganese (Dissolved)	ug/L	NA	1,610 [1,460]	NA	1,410	1,020	2,000	1,300	2,080	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area MW-111WT 5.5 - 10.5 06/02/04	Saginaw River Area MW-111WT 5.5 - 10.5 08/26/05	Saginaw River Area MW-111WT 5.5 - 10.5 04/02/08	Saginaw River Area MW-112WT 3.5 - 8.5 07/17/95	Saginaw River Area MW-112WT 3.5 - 8.5 06/12/96	Saginaw River Area MW-112WT 3.5 - 8.5 06/30/99	Saginaw River Area MW-112WT 3.5 - 8.5 09/02/99	Saginaw River Area MW-112WT 3.5 - 8.5 05/20/00	Saginaw River Area MW-112WT 3.5 - 8.5 06/03/04
Inorganics-Dissolved (Cont'd.)										
Mercury (Dissolved)	ug/L	NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA
Nickel (Dissolved)	ug/L	NA	NA	NA	50 U	50 U	5 U	50 U	40 U	NA
Potassium (Dissolved)	ug/L	NA	NA	NA	7,780	22,500	7,800 J	9,700	10,300 J	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	NA	NA	5 U	5 U	2 U	2 U	5 U	NA
Silver (Dissolved)	ug/L	NA	NA	NA	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	5 U	NA
Sodium (Dissolved)	ug/L	NA	NA	NA	72,200	177,000	93,000 J	67,000 J	298,000	NA
Thallium (Dissolved)	ug/L	NA	NA	NA	2 U	2 UJ	1 U	1 U	5.9 B	NA
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	NA	NA	20 U	20 U	10 U	10 UJ	20 U	NA
Zinc (Dissolved)	ug/L	NA	NA	NA	20 U	26.1 U	20 U	13	20 U	NA
Miscellaneous										
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	500 [500]	NA	NA	1,200	970	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA	1,000 U	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	210,000	220,000	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA	NA	NA	160,000 D	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	36 [36]	NA	NA	86.4	69.84	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	6,900	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	7,000	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	1,900	NA
Nitrate (as N)	ug/L	NA	NA	NA	NA	NA	NA	10 U	NA	NA
Nitrite (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	810	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	400 [400]	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	NA	NA	NA	NA	NA	NA	12,000	91,000	NA
Sulfide	ug/L	NA	NA	NA	NA	NA	NA	NA	2,000 U	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	580,000 [590,000]	NA	NA	NA	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	5,800	5,700	7,900	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area MW-111WT 5.5 - 10.5 06/02/04	Saginaw River Area MW-111WT 5.5 - 10.5 08/26/05	Saginaw River Area MW-111WT 5.5 - 10.5 04/02/08	Saginaw River Area MW-112WT 3.5 - 8.5 07/17/95	Saginaw River Area MW-112WT 3.5 - 8.5 06/12/96	Saginaw River Area MW-112WT 3.5 - 8.5 06/30/99	Saginaw River Area MW-112WT 3.5 - 8.5 09/02/99	Saginaw River Area MW-112WT 3.5 - 8.5 05/20/00	Saginaw River Area MW-112WT 3.5 - 8.5 06/03/04
Gases										
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA	NA	22,460	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	400 U	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA	1,470	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA	NA	70 U	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	19,800	NA

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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area MW-112WT 3.5 - 8.5 08/25/05	Saginaw River Area MW-112WT 3.5 - 8.5 11/27/07	Saginaw River Area MW-113WT 3.5 - 8.5 07/17/95	Saginaw River Area MW-113WT 3.5 - 8.5 06/13/96	Saginaw River Area MW-113WT 3.5 - 8.5 06/03/08	Saginaw River Area MW-114S1 10.7 - 15.7 07/17/95	Saginaw River Area MW-114S1 10.7 - 15.7 06/07/96	Saginaw River Area MW-114S2 22.5 - 27.5 07/17/95	Saginaw River Area MW-114S2 22.5 - 27.5 06/07/96
Inorganics										
Aluminum	ug/L	NA	NA	2,570 J	200	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	5.00 U	5.00 U	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	17.2 J	9.30 J	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	200 U	200 U	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	5.00 U	5.00 U	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	0.300 J	0.500 U	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	76,400	121,000	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	50.0 U	50.0 U	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	50.0 U	50.0 U	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	25.0 U	25.0 U	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	NA	5.00 U	5.00 U	NA	5.00 U	NA	5.00 U	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	7,180	943 J	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	16.7	3.00 U	NA	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	14,800	19,600	NA	NA	NA	NA	NA
Manganese	ug/L	NA	523	737	986	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	0.200 U	0.200 U	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	50.0 U	50.0 U	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	5,000 U	6,050	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	5.00 U	5.00 U	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	0.500 U	0.500 UJ	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	29,400	59,300	NA	NA	NA	NA	NA
Thallium	ug/L	1.00 U [1.00 U]	1.00 U	2.00 U	2.00 UJ	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	20.0 U	20.0 U	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	151	53.3 U	NA	NA	NA	NA	NA
Inorganics-Dissolved										
Aluminum (Dissolved)	ug/L	NA	NA	100 U	100 U	NA	100 U	117 U	100 U	100 U
Antimony (Dissolved)	ug/L	NA	NA	5 U	5 U	NA	5 U	5 U	5 U	5 U
Arsenic (Dissolved)	ug/L	NA	NA	11	12.5 J	NA	1 U	5 U	1 U	5 U
Barium (Dissolved)	ug/L	NA	NA	200 U	200 U	NA	200 U	200 U	200 U	200 U
Beryllium (Dissolved)	ug/L	NA	NA	5 U	5 U	NA	5 U	5 U	5 U	5 U
Cadmium (Dissolved)	ug/L	NA	NA	0.43	0.5 U	NA	0.2 U	0.5 U	0.2 U	0.5 UJ
Calcium (Dissolved)	ug/L	NA	NA	61,600	93,600	NA	48,400	49,000	61,000	53,100
Chromium Total (Dissolved)	ug/L	NA	NA	50 U	50 U	NA	50 U	50 U	50 U	50 U
Cobalt (Dissolved)	ug/L	NA	NA	50 U	50 U	NA	50 U	50 U	50 U	50 U
Copper (Dissolved)	ug/L	NA	NA	25 U	25 U	NA	25 U	25 U	25 U	25 U
Cyanide (Dissolved)	ug/L	NA	NA	NA	5 U	NA	NA	5 UJ	NA	5 UJ
Iron (Dissolved)	ug/L	NA	NA	330	648 J	NA	606	318 U	1,360	1,260 U
Lead (Dissolved)	ug/L	NA	NA	11	3 U	NA	3 U	3 U	3 U	3 U
Magnesium (Dissolved)	ug/L	NA	NA	9,790	15,400	NA	8,150	8,400	13,000	11,800
Manganese (Dissolved)	ug/L	NA	NA	571	823	NA	226	182	436	382
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area MW-112WT 3.5 - 8.5 08/25/05	Saginaw River Area MW-112WT 3.5 - 8.5 11/27/07	Saginaw River Area MW-113WT 3.5 - 8.5 07/17/95	Saginaw River Area MW-113WT 3.5 - 8.5 06/13/96	Saginaw River Area MW-113WT 3.5 - 8.5 06/03/08	Saginaw River Area MW-114S1 10.7 - 15.7 07/17/95	Saginaw River Area MW-114S1 10.7 - 15.7 06/07/96	Saginaw River Area MW-114S2 22.5 - 27.5 07/17/95	Saginaw River Area MW-114S2 22.5 - 27.5 06/07/96
Inorganics-Dissolved (Cont'd.)										
Mercury (Dissolved)	ug/L	NA	NA	0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U
Nickel (Dissolved)	ug/L	NA	NA	50 U	50 U	NA	50 U	50 U	50 U	50 U
Potassium (Dissolved)	ug/L	NA	NA	5,000 U	5,000 U	NA	5,000 U	5,000 U	5,000 U	5,000 U
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	NA	5 U	5 U	NA	5 U	5 U	5 U	5 U
Silver (Dissolved)	ug/L	NA	NA	0.5 U	0.5 UJ	NA	0.5 U	0.5 U	0.5 U	0.5 U
Sodium (Dissolved)	ug/L	NA	NA	27,500	47,000	NA	23,300	25,200	30,900	29,200
Thallium (Dissolved)	ug/L	1 U [1 U]	NA	2 U	2 UJ	NA	2 U	2 UJ	2 U	2 UJ
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	NA	20 U	20 U	NA	20 U	20 U	20 U	20 U
Zinc (Dissolved)	ug/L	NA	NA	20 U	40.6 U	NA	20 U	20 U	20 U	20 U
Miscellaneous										
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	600	NA	NA	700	NA	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	43.2	NA	NA	50.4	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	40 J	NA	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	400,000	NA	NA	NA	NA	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	Saginaw River Area MW-112WT 3.5 - 8.5 08/25/05	Saginaw River Area MW-112WT 3.5 - 8.5 11/27/07	Saginaw River Area MW-113WT 3.5 - 8.5 07/17/95	Saginaw River Area MW-113WT 3.5 - 8.5 06/13/96	Saginaw River Area MW-113WT 3.5 - 8.5 06/03/08	Saginaw River Area MW-114S1 10.7 - 15.7 07/17/95	Saginaw River Area MW-114S1 10.7 - 15.7 06/07/96	Saginaw River Area MW-114S2 22.5 - 27.5 07/17/95	Saginaw River Area MW-114S2 22.5 - 27.5 06/07/96
Gases										
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area MW-114S2 22.5 - 27.5 06/06/08	Saginaw River Area MW-114S3 35.5 - 40.5 07/17/95	Saginaw River Area MW-114S3 35.5 - 40.5 06/07/96	Saginaw River Area MW-114S4 47.8 - 52.8 07/17/95	Saginaw River Area MW-114S4 47.8 - 52.8 06/07/96	Saginaw River Area MW-114WT 3.5 - 8.5 06/08/96	Saginaw River Area MW-114WT 3.5 - 8.5 12/11/97	Saginaw River Area MW-114WT 3.5 - 8.5 05/22/00	Saginaw River Area MW-149WT 7 - 17 06/12/96
Inorganics										
Aluminum	ug/L	NA	NA	NA	NA	NA	193	NA	100 U	NA
Antimony	ug/L	NA	NA	NA	NA	NA	5.00 U	NA	5.00 U	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	5.00 U	NA	10.0 U	NA
Barium	ug/L	NA	NA	NA	NA	NA	570	NA	107	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	5.00 U	NA	4.00 U	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	4.00	NA	1.00 U	NA
Calcium	ug/L	NA	NA	NA	NA	NA	902,000	NA	595,000	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	50.0 U	NA	5.00 U	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	50.0 U	NA	10.0 U	NA
Copper	ug/L	NA	NA	NA	NA	NA	25.0 U	NA	25.0 U	NA
Cyanide (total)	ug/L	NA	5.00 U	NA	5.00 U	NA	5.00 U	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	367 U	NA	65.9 B	NA
Lead	ug/L	NA	NA	NA	NA	NA	3.00 U	NA	3.00 U	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	132,000	NA	67,300	NA
Manganese	ug/L	NA	NA	NA	NA	NA	2,260	NA	503	NA
Mercury	ug/L	NA	NA	NA	NA	NA	0.200 U	NA	0.200 U	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	50.0 U	NA	40.0 U	NA
Potassium	ug/L	NA	NA	NA	NA	NA	18,500	NA	16,100	NA
Selenium	ug/L	NA	NA	NA	NA	NA	5.00 U	NA	5.00 U	NA
Silver	ug/L	NA	NA	NA	NA	NA	0.500 U	NA	5.00 U	NA
Sodium	ug/L	NA	NA	NA	NA	NA	200,000	NA	218,000	NA
Thallium	ug/L	NA	NA	NA	NA	NA	4.00 UJ	NA	5.30 B	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	20.0 U	NA	20.0 U	NA
Zinc	ug/L	NA	NA	NA	NA	NA	20.0 U	NA	20.0 U	NA
Inorganics-Dissolved										
Aluminum (Dissolved)	ug/L	NA	100 U	100 U	231	196 U	122	NA	100 U	100 U
Antimony (Dissolved)	ug/L	NA	5 U	5 U	5 U	5 U	5 U	NA	5 U	5 U
Arsenic (Dissolved)	ug/L	NA	1 U	5 U	1 UJ	5 U	5 U	19	10 U	230
Barium (Dissolved)	ug/L	NA	200 U	200 U	200 U	200 U	570	250	92 B	200 U
Beryllium (Dissolved)	ug/L	NA	5 U	5 U	5 U	5 U	5 U	NA	4 U	5 U
Cadmium (Dissolved)	ug/L	NA	0.2 U	0.5 UJ	0.2 U	0.5 UJ	0.5 U	0.5 U	1 U	0.5 U
Calcium (Dissolved)	ug/L	NA	66,200	55,800	64,500	61,000	866,000	NA	609,000	100,000
Chromium Total (Dissolved)	ug/L	NA	50 U	50 U	50 U	50 U	50 U	75	5 U	50 U
Cobalt (Dissolved)	ug/L	NA	50 U	50 U	50 U	50 U	50 U	NA	10 U	50 U
Copper (Dissolved)	ug/L	NA	25 U	25 U	25 U	25 U	25 U	61	25 U	25 U
Cyanide (Dissolved)	ug/L	NA	NA	5 UJ	NA	5 UJ	5 UJ	NA	NA	5 U
Iron (Dissolved)	ug/L	NA	463	488 U	294	100 U	117	53,000	100 U	20,300 J
Lead (Dissolved)	ug/L	NA	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
Magnesium (Dissolved)	ug/L	NA	24,200	20,500	12,700	17,300	129,000	NA	65,700	17,000
Manganese (Dissolved)	ug/L	NA	214	186	20 U	54.6	1,620	NA	518	3,180
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area MW-114S2 22.5 - 27.5 06/06/08	Saginaw River Area MW-114S3 35.5 - 40.5 07/17/95	Saginaw River Area MW-114S3 35.5 - 40.5 06/07/96	Saginaw River Area MW-114S4 47.8 - 52.8 07/17/95	Saginaw River Area MW-114S4 47.8 - 52.8 06/07/96	Saginaw River Area MW-114WT 3.5 - 8.5 06/08/96	Saginaw River Area MW-114WT 3.5 - 8.5 12/11/97	Saginaw River Area MW-114WT 3.5 - 8.5 05/22/00	Saginaw River Area MW-149WT 7 - 17 06/12/96
Inorganics-Dissolved (Cont'd.)										
Mercury (Dissolved)	ug/L	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Nickel (Dissolved)	ug/L	NA	50 U	50 U	50 U	50 U	50 U	150	40 U	50 U
Potassium (Dissolved)	ug/L	NA	5,000 U	5,000 U	7,450	5,470	17,900	NA	17,000	5,000 U
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Silver (Dissolved)	ug/L	NA	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U
Sodium (Dissolved)	ug/L	NA	384,000	369,000	385,000	394,000	200,000	NA	218,000	29,600
Thallium (Dissolved)	ug/L	NA	2 UJ	4 UJ	2 U	4 UJ	10 UJ	NA	10 U	2 UJ
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	20 U	20 U	20 U	20 U	20 U	NA	20 U	20 U
Zinc (Dissolved)	ug/L	NA	20 U	20 U	20 U	20 U	28 U	310	20 U	109 U
Miscellaneous										
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	2,500 J	NA	NA	NA	NA	NA	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	180 J	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	560,000 J	NA	NA	NA	NA	NA	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area MW-114S2 22.5 - 27.5 06/06/08	Saginaw River Area MW-114S3 35.5 - 40.5 07/17/95	Saginaw River Area MW-114S3 35.5 - 40.5 06/07/96	Saginaw River Area MW-114S4 47.8 - 52.8 07/17/95	Saginaw River Area MW-114S4 47.8 - 52.8 06/07/96	Saginaw River Area MW-114WT 3.5 - 8.5 06/08/96	Saginaw River Area MW-114WT 3.5 - 8.5 12/11/97	Saginaw River Area MW-114WT 3.5 - 8.5 05/22/00	Saginaw River Area MW-149WT 7 - 17 06/12/96
Gases										
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area MW-149WT 7 - 17 05/21/00	Saginaw River Area MW-149WT 7 - 17 06/02/04	Saginaw River Area MW-149WT 7 - 17 04/03/08	Saginaw River Area MW-183WT 6 - 16 12/06/07	Saginaw River Area MW-183WT 6 - 16 01/09/08	Saginaw River Area MW-183WT 6 - 16 03/12/08	Saginaw River Area TW-210S1 02/15/95	Saginaw River Area TW-210S2 02/15/95	Saginaw River Area TW-210WT 02/14/95
Inorganics										
Aluminum	ug/L	98.4 B	NA	NA	NA	200 U [200 U]	200 U	NA	NA	NA
Antimony	ug/L	5.00 U	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	NA
Arsenic	ug/L	10.7	223 [227]	93.6 [92.3]	NA	5.00 U [5.00 U]	5.00 U	NA	NA	NA
Barium	ug/L	118	NA	NA	NA	44.1 J [44.3 J]	52.6 J	NA	NA	NA
Beryllium	ug/L	4.00 U	NA	NA	NA	1.00 U [1.00 U]	1.00 U	NA	NA	NA
Cadmium	ug/L	1.00 U	NA	NA	NA	1.00 U [1.00 U]	1.00 U	NA	NA	NA
Calcium	ug/L	117,000	NA	NA	NA	71,500 [73,100]	79,400	NA	NA	NA
Chromium Total	ug/L	5.00 U	NA	NA	NA	5.00 U [5.00 U]	5.00 U	NA	NA	NA
Cobalt	ug/L	10.0 U	NA	NA	NA	7.00 U [7.00 U]	7.00 U	NA	NA	NA
Copper	ug/L	25.0 U	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	NA
Cyanide (total)	ug/L	NA	NA	NA	NA	NA	NA	5.00 U	5.00 U	5.00 U
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	5,320	NA	NA	NA	1,200 J [669 J]	659	NA	NA	NA
Lead	ug/L	3.00 U	NA	NA	NA	3.00 U [3.00 U]	3.00 U	NA	NA	NA
Magnesium	ug/L	21,600	NA	NA	NA	13,400 [13,700]	14,500	NA	NA	NA
Manganese	ug/L	868	4,440 [4,560]	1,570	NA	514 [429 J]	611	NA	NA	NA
Mercury	ug/L	0.200 U	NA	NA	NA	0.200 U [0.200 U]	0.200 U	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	40.0 U	NA	NA	NA	20.0 U [20.0 U]	20.0 U	NA	NA	NA
Potassium	ug/L	24,600 J	NA	NA	NA	556 J [489 J]	1,000 U	NA	NA	NA
Selenium	ug/L	5.00 U	NA	NA	NA	5.00 U [5.00 U]	5.00 U	NA	NA	NA
Silver	ug/L	5.00 U	NA	NA	NA	0.200 U [0.200 U]	0.200 U	NA	NA	NA
Sodium	ug/L	79,800	NA	NA	NA	97,200 [99,800]	99,000	NA	NA	NA
Thallium	ug/L	6.70 B	1.00 U [1.00 U]	0.180 J [1.00 U]	NA	1.00 U [1.00 U]	1.00 U	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	20.0 U	NA	NA	NA	4.00 U [4.00 U]	4.00 U	NA	NA	NA
Zinc	ug/L	20.0 U	NA	NA	NA	20.0 U [20.0 U]	5.60 J	NA	NA	NA
Inorganics-Dissolved										
Aluminum (Dissolved)	ug/L	100 U	NA	NA	NA	200 U [200 U]	200 U	100 U	100 U	130
Antimony (Dissolved)	ug/L	5 U	NA	NA	NA	2 U [2 U]	2 U	5 U	5 U	5 U
Arsenic (Dissolved)	ug/L	6 B	NA	NA	NA	5 U [5 U]	3.3 J	1 UJ	1 UJ	1 UJ
Barium (Dissolved)	ug/L	112	NA	NA	NA	45.6 J [44.2 J]	51.4 J	200 U	200 U	200 U
Beryllium (Dissolved)	ug/L	4 U	NA	NA	NA	1 U [1 U]	1 U	5 U	5 U	5 U
Cadmium (Dissolved)	ug/L	1 U	NA	NA	NA	1 U [1 U]	1 U	0.2 U	0.2 UJW	0.2 U
Calcium (Dissolved)	ug/L	118,000	NA	NA	NA	74,300 [71,200]	80,500	57,300	27,400	47,400
Chromium Total (Dissolved)	ug/L	5 U	NA	NA	NA	5 U [5 U]	5 U	50 U	50 U	50 U
Cobalt (Dissolved)	ug/L	10 U	NA	NA	NA	7 U [7 U]	7 U	50 U	50 U	50 U
Copper (Dissolved)	ug/L	25 U	NA	NA	NA	2 U [2 U]	2 U	25 U	25 U	25 U
Cyanide (Dissolved)	ug/L	NA	NA	NA	NA	10 U [10 U]	10 U	NA	NA	NA
Iron (Dissolved)	ug/L	4,420	NA	NA	NA	714 J [1,280 J]	298	261 J	508 J	115 J
Lead (Dissolved)	ug/L	3 U	NA	NA	NA	3 U [3 U]	3 U	3 U	3 U	3 U
Magnesium (Dissolved)	ug/L	21,600	NA	NA	NA	13,900 [13,300]	14,700	8,980	7,640	8,450
Manganese (Dissolved)	ug/L	915	NA	NA	NA	440 [565 J]	608	566	113	287
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area MW-149WT 7 - 17 05/21/00	Saginaw River Area MW-149WT 7 - 17 06/02/04	Saginaw River Area MW-149WT 7 - 17 04/03/08	Saginaw River Area MW-183WT 6 - 16 12/06/07	Saginaw River Area MW-183WT 6 - 16 01/09/08	Saginaw River Area MW-183WT 6 - 16 03/12/08	Saginaw River Area TW-210S1 02/15/95	Saginaw River Area TW-210S2 02/15/95	Saginaw River Area TW-210WT 02/14/95
Inorganics-Dissolved (Cont'd.)										
Mercury (Dissolved)	ug/L	0.2 U	NA	NA	NA	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	0.2 U
Nickel (Dissolved)	ug/L	40 U	NA	NA	NA	20 U [20 U]	20 U	50 U	50 U	50 U
Potassium (Dissolved)	ug/L	24,000 J	NA	NA	NA	479 J [501 J]	1,000 U	5,000 U	5,000 U	5,000 U
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 U	NA	NA	NA	5 U [5 U]	5 U	5 UJ	5 UJ	5 UJ
Silver (Dissolved)	ug/L	5 U	NA	NA	NA	0.2 U [0.2 U]	0.2 U	0.5 U	0.5 U	0.5 U
Sodium (Dissolved)	ug/L	80,700	NA	NA	NA	102,000 [98,000]	100,000	27,600	249,000	25,600
Thallium (Dissolved)	ug/L	6.4 B	NA	NA	NA	1 U [1 U]	1 U	2 U	2 UJW	2 U
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	20 U	NA	NA	NA	4 U [4 U]	4 U	20 U	20 U	20 U
Zinc (Dissolved)	ug/L	20 U	NA	NA	NA	20 U [20 U]	71.5 J	286	315	180
Miscellaneous										
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	800	NA	400 [300]	300	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA	147,000 [148,000]	147,000	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	57.6	NA	28.8 [21.6]	21.6	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	NA	NA	NA	100 U [100 U]	100 U	NA	NA	NA
Nitrite (as N)	ug/L	NA	NA	NA	NA	100 U [100 U]	100 U	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA	7.3 [7.3]	7.3	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	300	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	NA	NA	NA	NA	1,000 [700 J]	2,600 U	NA	NA	NA
Sulfide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	NA	NA	440,000 [470,000]	520,000	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area MW-149WT 7 - 17 05/21/00	Saginaw River Area MW-149WT 7 - 17 06/02/04	Saginaw River Area MW-149WT 7 - 17 04/03/08	Saginaw River Area MW-183WT 6 - 16 12/06/07	Saginaw River Area MW-183WT 6 - 16 01/09/08	Saginaw River Area MW-183WT 6 - 16 03/12/08	Saginaw River Area TW-210S1 02/15/95	Saginaw River Area TW-210S2 02/15/95	Saginaw River Area TW-210WT 02/14/95
Gases										
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	Saginaw River Area TW-211S1 02/15/95	Saginaw River Area TW-211S2 02/16/95	Saginaw River Area TW-211WT 02/16/95	Saginaw River Area TW-212S1 02/15/95	Saginaw River Area TW-212S2 02/16/95	Saginaw River Area TW-212WT 02/15/95	Saginaw River Area TW-213S1 02/16/95	Saginaw River Area TW-213S2 02/17/95	Saginaw River Area TW-213WT 02/17/95
Inorganics										
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	5.00 U [5.00 U]	5.00 U	5.00 U	5.00 U	5.00 UJ	5.00 U	5.00 UJ	5.00 UJ	5.00 UJ
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved										
Aluminum (Dissolved)	ug/L	228 [148]	120	132	156	188	100 U	100 U	174	100 U
Antimony (Dissolved)	ug/L	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Arsenic (Dissolved)	ug/L	1 UJ [1 UJ]	1 UJ	13.4	1.4	1 UJ	1 UJ	1.4 J	1.9 J	4.7 J
Barium (Dissolved)	ug/L	200 U [200 U]	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U
Beryllium (Dissolved)	ug/L	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Cadmium (Dissolved)	ug/L	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Calcium (Dissolved)	ug/L	60,800 [69,300]	79,800	70,500	48,400	67,200	57,300	53,400	54,700	86,000
Chromium Total (Dissolved)	ug/L	50 U [50 U]	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Cobalt (Dissolved)	ug/L	50 U [50 U]	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Copper (Dissolved)	ug/L	25 U [25 U]	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Cyanide (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron (Dissolved)	ug/L	367 J [207 J]	294 J	418 J	114 J	678	100 U	100 U	R	100 U
Lead (Dissolved)	ug/L	3 U [3 U]	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
Magnesium (Dissolved)	ug/L	10,900 [12,800]	20,100	10,300	8,120	16,400	10,000	8,980	11,700	14,000
Manganese (Dissolved)	ug/L	360 [403]	494	758	192	381	1,180	334	352	1,200
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area TW-211S1 02/15/95	Saginaw River Area TW-211S2 02/16/95	Saginaw River Area TW-211WT 02/16/95	Saginaw River Area TW-212S1 02/15/95	Saginaw River Area TW-212S2 02/16/95	Saginaw River Area TW-212WT 02/15/95	Saginaw River Area TW-213S1 02/16/95	Saginaw River Area TW-213S2 02/17/95	Saginaw River Area TW-213WT 02/17/95
Inorganics-Dissolved (Cont'd.)										
Mercury (Dissolved)	ug/L	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Nickel (Dissolved)	ug/L	50 U [50 U]	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Potassium (Dissolved)	ug/L	6,240 [6,470]	5,000 U	9,320	5,000 U	5,000 UJ	5,000 U	5,000 UJ	5,870 J	6,730 J
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 UJ [5 UJ]	5 UJ	5 UJ	5 U	5 UJ	5 UJ	5 U	5 U	5 U
Silver (Dissolved)	ug/L	0.5 U [0.5 U]	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Sodium (Dissolved)	ug/L	27,500 [30,800]	81,200	26,000	25,000	35,100	27,800	25,400	32,200	37,200
Thallium (Dissolved)	ug/L	2 U [2 U]	2 UJW	2 U	2 U	2 UJ	2 U	2 UJ	2 UJ	2 UJ
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	20 U [20 U]	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Zinc (Dissolved)	ug/L	328 [356]	909	249	227	301 J	20 U	209 J	R	R
Miscellaneous										
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area TW-211S1 02/15/95	Saginaw River Area TW-211S2 02/16/95	Saginaw River Area TW-211WT 02/16/95	Saginaw River Area TW-212S1 02/15/95	Saginaw River Area TW-212S2 02/16/95	Saginaw River Area TW-212WT 02/15/95	Saginaw River Area TW-213S1 02/16/95	Saginaw River Area TW-213S2 02/17/95	Saginaw River Area TW-213WT 02/17/95
Gases										
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area X-4AR 3.3 - 8.3 07/24/95	Saginaw River Area X-4AR 3.3 - 8.3 06/09/96	Saginaw River Area X-4AR 3.3 - 8.3 05/21/00	Saginaw River Area X-4AR 3.3 - 8.3 06/03/04	Saginaw River Area X-4CAUG 18 - 23 07/24/95	Saginaw River Area X-4CAUG 18 - 23 06/08/96	Saginaw River Area X-4CAUGR 14 - 19 01/09/08	Saginaw River Area X-4CAUGR 14 - 19 03/12/08	Saginaw River Area X-9AR 3 - 13 07/24/95
Inorganics										
Aluminum	ug/L	42,600	315 U	134	NA	NA	NA	200 U	200 U	797
Antimony	ug/L	5.00 U	5.00 U	5.00 U	NA	NA	NA	2.00 U	2.00 U	5.00 U
Arsenic	ug/L	12.7	5.00 U	10.0 U	NA	NA	NA	5.00 U	5.00 U	1.60
Barium	ug/L	431	200 U	73.3 B	NA	NA	NA	114	129	200 U
Beryllium	ug/L	5.00 U	5.00 U	4.00 U	NA	NA	NA	1.00 U	1.00 U	5.00 U
Cadmium	ug/L	2.00 J	0.500 U	1.00 U	NA	NA	NA	1.00 U	1.00 U	0.200 UJ
Calcium	ug/L	481,000	173,000	159,000	NA	NA	NA	93,300	116,000	164,000
Chromium Total	ug/L	70.0	50.0 U	5.00 U	NA	NA	NA	5.00 U	5.00 U	50.0 U
Cobalt	ug/L	50.0 U	50.0 U	10.0 U	NA	NA	NA	7.00 U	7.00 U	50.0 U
Copper	ug/L	60.0	25.0 U	25.0 U	NA	NA	NA	2.00 U	2.00 U	25.0 U
Cyanide (total)	ug/L	5.00 U	5.00 U	NA	NA	5.00 U	NA	NA	NA	5.00 U
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	72,400	399	193 U	NA	NA	NA	4,600	5,060	11,100
Lead	ug/L	27.4	3.00 U	3.00 U	NA	NA	NA	3.00 U	3.00 U	3.00 U
Magnesium	ug/L	141,000	32,100	29,000	NA	NA	NA	26,000	31,300	42,600
Manganese	ug/L	1,500	41.9	15.0 U	NA	NA	NA	397	495	770
Mercury	ug/L	0.200 UJ	0.200 U	0.200 U	NA	NA	NA	0.200 U	0.200 U	0.200 UJ
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	53.0	50.0 U	40.0 U	NA	NA	NA	20.0 U	20.0 U	50.0 U
Potassium	ug/L	7,510	5,000 U	1,800 BJ	NA	NA	NA	552 J	1,000 U	5,000 U
Selenium	ug/L	5.00 U	5.00 U	5.00 U	NA	NA	NA	5.00 U	5.00 U	5.00 U
Silver	ug/L	0.500 UJ	0.500 U	5.00 U	NA	NA	NA	0.200 U	0.200 U	0.500 UJ
Sodium	ug/L	20,700	21,900	20,700	NA	NA	NA	73,900	55,400	340,000
Thallium	ug/L	2.00 UJ	2.00 UJ	7.30 B	1.00 U	NA	NA	1.00 U	1.00 U	2.00 UJ
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	83.2	20.0 U	20.0 U	NA	NA	NA	4.00 U	4.00 U	20.0 U
Zinc	ug/L	4,170	67.7 U	20.0 U	NA	NA	NA	20.0 U	20.0 U	84.0
Inorganics-Dissolved										
Aluminum (Dissolved)	ug/L	113	151 U	100 U	NA	103	100 U	200 U	200 U	110
Antimony (Dissolved)	ug/L	5 U	5 U	5 U	NA	5 U	5 U	2 U	2 U	5 U
Arsenic (Dissolved)	ug/L	1.2	5 U	10 U	NA	1 UJ	5 U	5 U	5 U	2.1
Barium (Dissolved)	ug/L	200 U	200 U	73.9 B	NA	200 U	200 U	123	137	200 U
Beryllium (Dissolved)	ug/L	5 U	5 U	4 U	NA	5 U	5 U	1 U	1 U	5 U
Cadmium (Dissolved)	ug/L	0.2 U	0.5 UJ	1 U	NA	0.2 U	0.63	1 U	1 U	0.2 U
Calcium (Dissolved)	ug/L	149,000	176,000	162,000	NA	88,500	89,000	101,000	126,000	145,000
Chromium Total (Dissolved)	ug/L	50 U	50 U	5 U	NA	50 U	50 U	5 U	5 U	50 U
Cobalt (Dissolved)	ug/L	50 U	50 U	10 U	NA	50 U	50 U	7 U	7 U	50 U
Copper (Dissolved)	ug/L	25 U	25 U	25 U	NA	25 U	25 U	2 U	2 U	25 U
Cyanide (Dissolved)	ug/L	NA	5 U	NA	NA	NA	5 UJ	10 U	10 U	NA
Iron (Dissolved)	ug/L	1,080	289	100 U	NA	1,970	1,980	4,940	5,020	9,170
Lead (Dissolved)	ug/L	3 U	3 U	3 U	NA	3 U	3 U	3 U	3 U	3 U
Magnesium (Dissolved)	ug/L	29,900	32,900	29,500	NA	23,900	23,500	28,300	34,100	38,700
Manganese (Dissolved)	ug/L	248	44.4	15 U	NA	447	464	427	535	674
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area X-4AR 3.3 - 8.3 07/24/95	Saginaw River Area X-4AR 3.3 - 8.3 06/09/96	Saginaw River Area X-4AR 3.3 - 8.3 05/21/00	Saginaw River Area X-4AR 3.3 - 8.3 06/03/04	Saginaw River Area X-4CAUG 18 - 23 07/24/95	Saginaw River Area X-4CAUG 18 - 23 06/08/96	Saginaw River Area X-4CAUGR 14 - 19 01/09/08	Saginaw River Area X-4CAUGR 14 - 19 03/12/08	Saginaw River Area X-9AR 3 - 13 07/24/95
Inorganics-Dissolved (Cont'd.)										
Mercury (Dissolved)	ug/L	0.2 UJ	0.2 U	0.2 U	NA	0.2 UJ	0.2 U	0.2 U	0.2 U	0.2 UJ
Nickel (Dissolved)	ug/L	50 U	50 U	40 U	NA	50 U	50 U	20 U	20 U	50 U
Potassium (Dissolved)	ug/L	5,000 U	5,000 U	1,740 BJ	NA	5,000 U	5,000 U	605 J	1,000 U	5,000 U
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 U	5 U	5 U	NA	5 U	5 U	5 U	5 U	5 U
Silver (Dissolved)	ug/L	0.5 UJ	0.5 U	5 U	NA	0.5 UJ	0.5 U	0.2 U	0.2 U	0.5 UJ
Sodium (Dissolved)	ug/L	18,100	22,900	20,900	NA	65,400	79,100	79,600	58,000	37,600
Thallium (Dissolved)	ug/L	2 U	2 UJ	4.6 B	NA	2 UJ	4 UJ	1 U	1 U	2 UJ
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	20 U	20 U	20 U	NA	20 U	20 U	4 U	4 U	20 U
Zinc (Dissolved)	ug/L	341	70.6 U	20 U	NA	20	20 UJ	20 U	20 U	51
Miscellaneous										
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	1,500	2,000	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA	NA	NA	160,000	108,000	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	NA	NA	NA	NA	108	144	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	NA	NA	NA	NA	NA	100 U	100 U	NA
Nitrite (as N)	ug/L	NA	NA	NA	NA	NA	NA	100 U	100 U	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA	NA	NA	7.2	7.3	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	NA	NA	NA	NA	NA	NA	1,000 U	1,000 U	NA
Sulfide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	NA	NA	NA	NA	550,000	580,000	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area X-4AR 3.3 - 8.3 07/24/95	Saginaw River Area X-4AR 3.3 - 8.3 06/09/96	Saginaw River Area X-4AR 3.3 - 8.3 05/21/00	Saginaw River Area X-4AR 3.3 - 8.3 06/03/04	Saginaw River Area X-4CAUG 18 - 23 07/24/95	Saginaw River Area X-4CAUG 18 - 23 06/08/96	Saginaw River Area X-4CAUGR 14 - 19 01/09/08	Saginaw River Area X-4CAUGR 14 - 19 03/12/08	Saginaw River Area X-9AR 3 - 13 07/24/95
Gases										
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area X-9AR 3 - 13 06/09/96	Saginaw River Area X-9AR 3 - 13 12/15/06	Saginaw River Area X-9AR 3 - 13 01/10/08	Saginaw River Area X-9AR 3 - 13 03/11/08	Saginaw River Area X-9AR 3 - 13 06/05/08	Saginaw River Area X-9BR 26 - 31 07/24/95	Saginaw River Area X-9BR 26 - 31 06/08/96	Saginaw River Area X-9BR 26 - 31 12/15/06	Saginaw River Area X-9BR 26 - 31 01/08/08
Inorganics										
Aluminum	ug/L	430 U	200 U	200 U	200 U	NA	NA	NA	200 U [200 U]	200 U
Antimony	ug/L	5.00 U	2.00 U	2.00 U	2.00 U	NA	NA	NA	2.00 U [2.00 U]	2.00 U
Arsenic	ug/L	5.00 U	5.00 U	5.00 U	5.00 U	NA	NA	NA	5.00 U [5.00 U]	5.00 U
Barium	ug/L	200 U	94.0 J	108	51.8 J	NA	NA	NA	143 [148]	155
Beryllium	ug/L	5.00 U	1.00 U	1.00 U	1.00 U	NA	NA	NA	1.00 U [1.00 U]	1.00 U
Cadmium	ug/L	0.500 UJ	1.00 U	1.00 U	1.00 U	NA	NA	NA	1.00 U [1.00 U]	1.00 U
Calcium	ug/L	146,000	168,000	164,000	139,000	NA	NA	NA	117,000 [121,000]	121,000
Chromium Total	ug/L	50.0 U	5.00 U	5.00 U	5.00 U	NA	NA	NA	5.00 U [5.00 U]	5.00 U
Cobalt	ug/L	50.0 U	7.00 U	7.00 U	7.00 U	NA	NA	NA	7.00 U [7.00 U]	7.00 U
Copper	ug/L	25.0 U	1.80 J	2.00 U	2.00 U	NA	NA	NA	2.00 U [0.580 J]	2.00 U
Cyanide (total)	ug/L	5.00 U	NA	NA	NA	NA	5.00 U	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	2,900	1,090	5,510	100 U	NA	NA	NA	3,070 [3,120]	4,160
Lead	ug/L	3.00 U	3.00 U	3.00 U	3.00 U	NA	NA	NA	3.00 U [3.00 U]	3.00 U
Magnesium	ug/L	37,200	43,400	45,300	36,800	NA	NA	NA	36,400 [37,600]	37,600
Manganese	ug/L	348	157	318	6.80 J	NA	NA	NA	777 [801]	833
Mercury	ug/L	0.200 U	0.200 U	0.200 U	0.130 J	0.200 U [0.200 U]	NA	NA	0.200 U [0.200 U]	0.200 U
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	50.0 U	20.0 U	20.0 U	20.0 U	NA	NA	NA	20.0 U [20.0 U]	20.0 U
Potassium	ug/L	5,000 U	1,000 U	121 J	1,000 U	NA	NA	NA	1,370 [1,370]	1,550
Selenium	ug/L	5.00 U	5.00 U	5.00 U	8.20	4.60 B [5.00 U]	NA	NA	5.00 U [5.00 U]	5.00 U
Silver	ug/L	0.500 U	0.200 U	0.200 U	0.200 U	NA	NA	NA	0.200 U [0.200 U]	0.200 U
Sodium	ug/L	57,200	55,000	58,600	34,300	NA	NA	NA	102,000 [102,000]	122,000
Thallium	ug/L	2.00 UJ	1.00 U	1.00 U	1.00 U	NA	NA	NA	1.00 U [1.00 U]	1.00 U
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	20.0 U	4.00 U	4.00 U	4.00 U	NA	NA	NA	4.00 U [4.00 U]	4.00 U
Zinc	ug/L	20.0 U	20.0 U	20.0 U	20.0 U	NA	NA	NA	20.0 U [20.0 U]	20.0 U
Inorganics-Dissolved										
Aluminum (Dissolved)	ug/L	100 U	200 U	200 U	200 U	NA	100 U	101	200 U	200 U
Antimony (Dissolved)	ug/L	5 U	2 U	2 U	2 U	NA	5 U	5 U	2 U	2 U
Arsenic (Dissolved)	ug/L	5 U	5 U	5 U	5 U	NA	1 UJ	5 U	5 U	5 U
Barium (Dissolved)	ug/L	200 U	91.2 J	110	51.2 J	NA	200 U	200 U	153	103
Beryllium (Dissolved)	ug/L	5 U	1 U	1 U	1 U	NA	5 U	5 U	1 U	1 U
Cadmium (Dissolved)	ug/L	0.5 UJ	1 U	1 U	1 U	NA	0.2 U	0.5 UJ	1 U	1 U
Calcium (Dissolved)	ug/L	144,000	166,000	168,000	141,000	NA	118,000	130,000	112,000	79,200
Chromium Total (Dissolved)	ug/L	50 U	5 U	5 U	5 U	NA	50 U	50 U	5 U	5 U
Cobalt (Dissolved)	ug/L	50 U	7 U	7 U	7 U	NA	50 U	50 U	7 U	7 U
Copper (Dissolved)	ug/L	25 U	0.59 J	2 U	2 U	NA	25 U	25 U	2 U	2 U
Cyanide (Dissolved)	ug/L	5 UJ	10 U	10 U	10 U	NA	NA	5 UJ	10 U	10 U
Iron (Dissolved)	ug/L	3,190	965	5,620	134	NA	3,360	2,490	4,450	2,790
Lead (Dissolved)	ug/L	3 U	3 U	3 U	3 U	NA	3 U	3 U	3 U	3 U
Magnesium (Dissolved)	ug/L	36,300	42,900	46,300	37,500	NA	37,600	42,600	34,500	24,300
Manganese (Dissolved)	ug/L	382	153	325	3.1 J	NA	763	813	717	541
Mercury	ug/L	NA	NA	NA	NA	0.2 U [0.2 U]	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area X-9AR 3 - 13 06/09/96	Saginaw River Area X-9AR 3 - 13 12/15/06	Saginaw River Area X-9AR 3 - 13 01/10/08	Saginaw River Area X-9AR 3 - 13 03/11/08	Saginaw River Area X-9AR 3 - 13 06/05/08	Saginaw River Area X-9BR 26 - 31 07/24/95	Saginaw River Area X-9BR 26 - 31 06/08/96	Saginaw River Area X-9BR 26 - 31 12/15/06	Saginaw River Area X-9BR 26 - 31 01/08/08
Inorganics-Dissolved (Cont'd.)										
Mercury (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 UJ	0.2 U	0.2 U	0.2 U
Nickel (Dissolved)	ug/L	50 U	20 U	20 U	20 U	NA	50 U	50 U	20 U	20 U
Potassium (Dissolved)	ug/L	5,000 U	1,000 U	137 J	1,000 U	NA	5,000 U	5,000 U	1,480	1,060
Selenium	ug/L	NA	NA	NA	NA	5 U [5 U]	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 U	5 U	5 U	9.8	NA	5 U	5 U	5.7 U	5 U
Silver (Dissolved)	ug/L	0.5 U	0.2 UJ	0.2 U	0.2 U	NA	0.5 UJ	0.5 U	0.2 UJ	0.2 U
Sodium (Dissolved)	ug/L	57,000	54,500	60,500	33,600	NA	64,000	48,800	125,000	81,500
Thallium (Dissolved)	ug/L	4 UJ	1 U	1 U	1 U	NA	2 UJ	4 UJ	1 U	1 U
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	20 U	4 U	4 U	4 U	NA	20 U	20 U	4 U	4 U
Zinc (Dissolved)	ug/L	35.5 U	20 U	20 U	20 U	NA	25	20 UJ	20 U	20 U
Miscellaneous										
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	200 U	300	200 U	NA	NA	NA	5,900	5,200
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	ug/L	NA	29,700	58,000	10,700	NA	NA	NA	191,000	200,000
Estimated Un-ionized Ammonia	ug/L	NA	14.4 U	21.6	14.4 U	NA	NA	NA	424.8	374.4
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	100 U	100 U	100 U	NA	NA	NA	100	100 U
Nitrite (as N)	ug/L	NA	100 U	100 U	100 U	NA	NA	NA	180	100 U
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	NA	7.2 J	7.1	7.4	NA	NA	NA	7.2 J	7.2
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	NA	29,200	400 J	35,500	NA	NA	NA	1,000 U	1,000 U
Sulfide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	790,000	770,000	600,000	NA	NA	NA	830,000	810,000
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	Saginaw River Area X-9AR 3 - 13 06/09/96	Saginaw River Area X-9AR 3 - 13 12/15/06	Saginaw River Area X-9AR 3 - 13 01/10/08	Saginaw River Area X-9AR 3 - 13 03/11/08	Saginaw River Area X-9AR 3 - 13 06/05/08	Saginaw River Area X-9BR 26 - 31 07/24/95	Saginaw River Area X-9BR 26 - 31 06/08/96	Saginaw River Area X-9BR 26 - 31 12/15/06	Saginaw River Area X-9BR 26 - 31 01/08/08
Gases										
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area X-9BR 26 - 31 03/11/08	Saginaw River Area X-9CAUG 20 - 25 07/24/95	Saginaw River Area X-9CAUG 20 - 25 06/08/96	Saginaw River Area X-9CAUG 20 - 25 12/15/06	Saginaw River Area X-9CAUG 20 - 25 01/08/08	Saginaw River Area X-9CAUG 20 - 25 03/11/08	Secondary Settling Pond MW-115S1 20 - 25 07/15/95	Secondary Settling Pond MW-115S1 20 - 25 06/07/96
Inorganics									
Aluminum	ug/L	200 U	NA	NA	200 U	200 U	200 U	NA	NA
Antimony	ug/L	2.00 U	NA	NA	2.00 U	2.00 U	2.00 U	NA	NA
Arsenic	ug/L	5.00 U	NA	NA	5.00 U	5.00 U	5.00 U	NA	NA
Barium	ug/L	147	NA	NA	176	381	167	NA	NA
Beryllium	ug/L	1.00 U	NA	NA	1.00 U	1.00 U	1.00 U	NA	NA
Cadmium	ug/L	1.00 U	NA	NA	1.00 U	1.00 U	1.00 U	NA	NA
Calcium	ug/L	134,000	NA	NA	126,000	120,000	127,000	NA	NA
Chromium Total	ug/L	5.00 U	NA	NA	5.00 U	5.00 U	5.00 U	NA	NA
Cobalt	ug/L	7.00 U	NA	NA	7.00 U	7.00 U	7.00 U	NA	NA
Copper	ug/L	2.00 U	NA	NA	2.00 U	2.00 U	2.00 U	NA	NA
Cyanide (total)	ug/L	NA	5.00 U	NA	NA	NA	NA	5.00 U	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	2,590	NA	NA	6,920	2,980	6,410	NA	NA
Lead	ug/L	3.00 U	NA	NA	3.00 U	3.00 U	3.00 U	NA	NA
Magnesium	ug/L	41,500	NA	NA	38,700	40,400	38,600	NA	NA
Manganese	ug/L	903	NA	NA	632	616	679	NA	NA
Mercury	ug/L	0.200 U	NA	NA	0.200 U	0.200 U	0.200 U	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	20.0 U	NA	NA	20.0 U	20.0 U	20.0 U	NA	NA
Potassium	ug/L	1,310	NA	NA	760 J	39,700	2,990	NA	NA
Selenium	ug/L	5.00 U	NA	NA	5.00 U	5.00 U	5.00 U	NA	NA
Silver	ug/L	0.200 U	NA	NA	0.200 U	0.200 U	0.200 U	NA	NA
Sodium	ug/L	81,200	NA	NA	59,400	72,800	59,900	NA	NA
Thallium	ug/L	1.00 U	NA	NA	1.00 U	1.00 U	1.00 U	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	4.00 U	NA	NA	4.00 U	4.00 U	4.00 U	NA	NA
Zinc	ug/L	20.0 U	NA	NA	20.0 U	20.0 U	20.0 U	NA	NA
Inorganics-Dissolved									
Aluminum (Dissolved)	ug/L	200 U	156	100 U	200 U	200 U	200 U	100 U	NA
Antimony (Dissolved)	ug/L	2 U	5 U	5 U	2 U	2 U	2 U	5 U	NA
Arsenic (Dissolved)	ug/L	5 U	1 UJ	5 U	5 U	5 U	5 U	5.2	NA
Barium (Dissolved)	ug/L	136	200 U	200 U	173	360	174	200 U	NA
Beryllium (Dissolved)	ug/L	1 U	5 U	5 U	1 U	1 U	1 U	5 U	NA
Cadmium (Dissolved)	ug/L	1 U	0.2 U	0.5 U	1 U	1 U	1 U	0.2 U	NA
Calcium (Dissolved)	ug/L	123,000	122,000	132,000	124,000	116,000	133,000	62,300	NA
Chromium Total (Dissolved)	ug/L	5 U	50 U	50 U	5 U	5 U	5 U	50 U	NA
Cobalt (Dissolved)	ug/L	7 U	50 U	50 U	7 U	7 U	7 U	50 U	NA
Copper (Dissolved)	ug/L	2 U	25 U	25 U	2 U	2 U	2 U	25 U	NA
Cyanide (Dissolved)	ug/L	10 U	NA	5 UJ	10 U	10 U	10 U	NA	NA
Iron (Dissolved)	ug/L	2,560	7,500	8,900	6,730	2,810	6,730	2,870 J	2,860
Lead (Dissolved)	ug/L	3 U	3 U	3 U	3 U	3 U	3 U	3 U	NA
Magnesium (Dissolved)	ug/L	38,000	38,500	40,000	38,100	38,700	40,400	14,500	NA
Manganese (Dissolved)	ug/L	828	628	615	630	586	699	550	495
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area X-9BR 26 - 31 03/11/08	Saginaw River Area X-9CAUG 20 - 25 07/24/95	Saginaw River Area X-9CAUG 20 - 25 06/08/96	Saginaw River Area X-9CAUG 20 - 25 12/15/06	Saginaw River Area X-9CAUG 20 - 25 01/08/08	Saginaw River Area X-9CAUG 20 - 25 03/11/08	Secondary Settling Pond MW-115S1 20 - 25 07/15/95	Secondary Settling Pond MW-115S1 20 - 25 06/07/96
Inorganics-Dissolved (Cont'd.)									
Mercury (Dissolved)	ug/L	0.2 U	0.2 UJ	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA
Nickel (Dissolved)	ug/L	20 U	50 U	50 U	20 U	20 U	20 U	50 U	NA
Potassium (Dissolved)	ug/L	1,290	5,000 U	5,000 U	755 J	38,000	3,370	5,000 U	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA
Silver (Dissolved)	ug/L	0.2 U	0.5 U	0.5 U	0.2 UJ	0.2 U	0.2 U	0.5 U	NA
Sodium (Dissolved)	ug/L	84,500	47,200	47,000	58,200	68,600	62,000	32,200	32,500
Thallium (Dissolved)	ug/L	1 U	2 U	2 UJ	1 U	1 U	1 U	2 U	NA
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	4 U	20 U	20 U	4 U	4 U	4 U	20 U	NA
Zinc (Dissolved)	ug/L	20 U	20 U	20 U	20 U	8 J	5.8 J	20 U	63.6
Miscellaneous									
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	5,000	NA	NA	2,900	3,200	3,300	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	ug/L	181,000	NA	NA	130,000	145,000	130,000	NA	NA
Estimated Un-ionized Ammonia	ug/L	360	NA	NA	208.8	230.4	237.6	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	100 U	NA	NA	100 U	200	100 U	NA	NA
Nitrite (as N)	ug/L	100 U	NA	NA	110	100 U	100 U	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	7.1	NA	NA	7.1 J	7.4	7.1	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	1,000 U	NA	NA	1,000 U	300 J	1,000 U	NA	NA
Sulfide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	760,000	NA	NA	690,000	700,000	680,000	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Saginaw River Area X-9BR 26 - 31 03/11/08	Saginaw River Area X-9CAUG 20 - 25 07/24/95	Saginaw River Area X-9CAUG 20 - 25 06/08/96	Saginaw River Area X-9CAUG 20 - 25 12/15/06	Saginaw River Area X-9CAUG 20 - 25 01/08/08	Saginaw River Area X-9CAUG 20 - 25 03/11/08	Secondary Settling Pond MW-115S1 20 - 25 07/15/95	Secondary Settling Pond MW-115S1 20 - 25 06/07/96
Gases									
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Secondary Settling Pond MW-115S2 32.5 - 37.5 07/15/95	Secondary Settling Pond MW-115S2 32.5 - 37.5 06/07/96	Secondary Settling Pond MW-115S3 41.5 - 46.5 07/15/95	Secondary Settling Pond MW-115S3 41.5 - 46.5 06/07/96	Secondary Settling Pond MW-115WT 2.5 - 7.5 07/15/95	Secondary Settling Pond MW-115WT 2.5 - 7.5 06/07/96	Secondary Settling Pond MW-116S1 27 - 32 07/15/95
Inorganics								
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	5.00 U	NA	5.00 U	NA	5.00 U	NA	5.00 U
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved								
Aluminum (Dissolved)	ug/L	118	NA	478	NA	100 U	NA	100 U
Antimony (Dissolved)	ug/L	5 U	NA	5 U	NA	5 U	NA	5 U
Arsenic (Dissolved)	ug/L	1 U	NA	1.2	NA	4.6	NA	2.1
Barium (Dissolved)	ug/L	219	NA	200 U	NA	200 U	NA	594
Beryllium (Dissolved)	ug/L	5 U	NA	5 U	NA	5 U	NA	5 U
Cadmium (Dissolved)	ug/L	0.2 U	NA	0.2 U	NA	0.2 U	NA	0.2 U
Calcium (Dissolved)	ug/L	107,000	NA	95,500	NA	53,000	NA	169,000
Chromium Total (Dissolved)	ug/L	50 U	NA	50 U	NA	50 U	NA	50 U
Cobalt (Dissolved)	ug/L	50 U	NA	50 U	NA	50 U	NA	50 U
Copper (Dissolved)	ug/L	25 U	NA	39	NA	25 U	NA	25 U
Cyanide (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA
Iron (Dissolved)	ug/L	1,460 J	1,630	1,560 J	1,390	1,260 J	2,560	11,100 J
Lead (Dissolved)	ug/L	3 U	NA	3 U	NA	3 U	NA	3 U
Magnesium (Dissolved)	ug/L	36,100	NA	37,000	NA	9,960	NA	51,000
Manganese (Dissolved)	ug/L	220	208	177	181	1,060	1,270	437
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Secondary Settling Pond MW-115S2 32.5 - 37.5 07/15/95	Secondary Settling Pond MW-115S2 32.5 - 37.5 06/07/96	Secondary Settling Pond MW-115S3 41.5 - 46.5 07/15/95	Secondary Settling Pond MW-115S3 41.5 - 46.5 06/07/96	Secondary Settling Pond MW-115WT 2.5 - 7.5 07/15/95	Secondary Settling Pond MW-115WT 2.5 - 7.5 06/07/96	Secondary Settling Pond MW-116S1 27 - 32 07/15/95
Inorganics-Dissolved (Cont'd.)								
Mercury (Dissolved)	ug/L	0.2 U	NA	0.2 U	NA	0.2 U	NA	0.2 U
Nickel (Dissolved)	ug/L	50 U	NA	50 U	NA	50 U	NA	50 U
Potassium (Dissolved)	ug/L	5,000 U	NA	5,000 U	NA	5,000 U	NA	5,000 U
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 U	NA	5 U	NA	5 U	NA	5 U
Silver (Dissolved)	ug/L	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U
Sodium (Dissolved)	ug/L	268,000	278,000	285,000	335,000	29,100	43,200	91,800
Thallium (Dissolved)	ug/L	2 UJ	NA	2 UJ	NA	2 U	NA	2 UJ
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	20 U	NA	20 U	NA	20 U	NA	20 U
Zinc (Dissolved)	ug/L	R	20 U	20 U	20 U	20 U	20 U	R
Miscellaneous								
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA
Nitrite (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA
Sulfide	ug/L	NA	NA	NA	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Secondary Settling Pond MW-115S2 32.5 - 37.5 07/15/95	Secondary Settling Pond MW-115S2 32.5 - 37.5 06/07/96	Secondary Settling Pond MW-115S3 41.5 - 46.5 07/15/95	Secondary Settling Pond MW-115S3 41.5 - 46.5 06/07/96	Secondary Settling Pond MW-115WT 2.5 - 7.5 07/15/95	Secondary Settling Pond MW-115WT 2.5 - 7.5 06/07/96	Secondary Settling Pond MW-116S1 27 - 32 07/15/95
Gases								
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Secondary Settling Pond MW-116S1 27 - 32 06/07/96	Secondary Settling Pond MW-116S2 44 - 49 07/15/95	Secondary Settling Pond MW-116S2 44 - 49 06/07/96	Secondary Settling Pond MW-116WT 2 - 7 07/15/95	Secondary Settling Pond MW-116WT 2 - 7 06/07/96	Secondary Settling Pond MW-131S1 42.5 - 45 07/27/95	Secondary Settling Pond MW-131S2 49.5 - 52 07/27/95
Inorganics								
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	5.00 U	NA	5.00 U	NA	5.00 U	5.00 U [5.00 U]
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved								
Aluminum (Dissolved)	ug/L	NA	100 U	NA	100 U	NA	100 U	166 [100 U]
Antimony (Dissolved)	ug/L	NA	5 U	NA	5 U	NA	5 U	5 U [5 U]
Arsenic (Dissolved)	ug/L	NA	9.9	NA	18.1	NA	3.6	15.7 [14.8]
Barium (Dissolved)	ug/L	NA	504	NA	253	NA	595	200 U [200 U]
Beryllium (Dissolved)	ug/L	NA	5 U	NA	5 U	NA	5 U	5 U [5 U]
Cadmium (Dissolved)	ug/L	NA	0.2 U	NA	0.2 U	NA	0.2 UJ	0.2 UJ [0.2 UJ]
Calcium (Dissolved)	ug/L	NA	114,000	NA	228,000	NA	114,000	157,000 [162,000]
Chromium Total (Dissolved)	ug/L	NA	50 U	NA	50 U	NA	50 U	50 U [50 U]
Cobalt (Dissolved)	ug/L	NA	50 U	NA	50 U	NA	50 U	50 U [50 U]
Copper (Dissolved)	ug/L	NA	25 U	NA	25 U	NA	25 U	25 U [25 U]
Cyanide (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA
Iron (Dissolved)	ug/L	10,900	4,420 J	5,520	9,520 J	9,000	6,040	4,510 [4,520]
Lead (Dissolved)	ug/L	NA	3 U	NA	3 U	NA	3 U	3 U [3 U]
Magnesium (Dissolved)	ug/L	NA	41,100	NA	51,100	NA	38,600	59,000 [60,400]
Manganese (Dissolved)	ug/L	413	81	63.7	1,500	1,520	153	148 [152]
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Secondary Settling Pond MW-116S1 27 - 32 06/07/96	Secondary Settling Pond MW-116S2 44 - 49 07/15/95	Secondary Settling Pond MW-116S2 44 - 49 06/07/96	Secondary Settling Pond MW-116WT 2 - 7 07/15/95	Secondary Settling Pond MW-116WT 2 - 7 06/07/96	Secondary Settling Pond MW-131S1 42.5 - 45 07/27/95	Secondary Settling Pond MW-131S2 49.5 - 52 07/27/95
Inorganics-Dissolved (Cont'd.)								
Mercury (Dissolved)	ug/L	NA	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U [0.2 U]
Nickel (Dissolved)	ug/L	NA	50 U	NA	50 U	NA	50 U	50 U [50 U]
Potassium (Dissolved)	ug/L	NA	5,000 U	NA	10,400	NA	5,000 U	10,800 [11,000]
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	5 U	NA	5 U	NA	5 U	5 U [5 U]
Silver (Dissolved)	ug/L	NA	0.5 U	NA	0.5 U	NA	0.5 U	0.5 U [0.5 U]
Sodium (Dissolved)	ug/L	90,000	230,000	254,000	199,000	207,000	153,000	362,000 [371,000]
Thallium (Dissolved)	ug/L	NA	2 U	NA	2 UJ	NA	2 U	2 UJ [2 UJ]
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	20 U	NA	20 U	NA	20 U	20 U [20 U]
Zinc (Dissolved)	ug/L	20 U	20 U	20 U	20 U	20 U	20 U	20 U [20 U]
Miscellaneous								
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA
Nitrite (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA
Sulfide	ug/L	NA	NA	NA	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Secondary Settling Pond MW-116S1 27 - 32 06/07/96	Secondary Settling Pond MW-116S2 44 - 49 07/15/95	Secondary Settling Pond MW-116S2 44 - 49 06/07/96	Secondary Settling Pond MW-116WT 2 - 7 07/15/95	Secondary Settling Pond MW-116WT 2 - 7 06/07/96	Secondary Settling Pond MW-131S1 42.5 - 45 07/27/95	Secondary Settling Pond MW-131S2 49.5 - 52 07/27/95
Gases								
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA

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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Secondary Settling Pond MW-131WT 2 - 12 07/27/95	Secondary Settling Pond MW-150WT 3 - 13 06/13/96	Secondary Settling Pond MW-184WT 3 - 13 08/17/00	Secondary Settling Pond MW-185WT 3 - 8 11/28/07	Secondary Settling Pond TW-214S1 01/27/95	Secondary Settling Pond TW-214S2 01/27/95	Secondary Settling Pond TW-214WT 01/26/95
Inorganics								
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	5.10 U	NA	NA	NA	5.00 UJ	5.00 UJ	5.00 UJ
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	291	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved								
Aluminum (Dissolved)	ug/L	100 U	100 U [100 U]	NA	NA	R	R	204
Antimony (Dissolved)	ug/L	5 U	5 U [5 U]	NA	NA	5 U	5 U	5 U
Arsenic (Dissolved)	ug/L	1 U	5 U [5 U]	4.1 B [4.6 B]	NA	6.4	1.2	2.3
Barium (Dissolved)	ug/L	200 U	200 U [200 U]	95.8 B [93.7 B]	NA	200 U	200 U	200 U
Beryllium (Dissolved)	ug/L	5 U	5 U [5 U]	NA	NA	5 U	5 U	5 U
Cadmium (Dissolved)	ug/L	0.2 UJ	0.5 UJ [0.5 U]	1 U [1 U]	NA	0.2 U	0.2 U	0.2 U
Calcium (Dissolved)	ug/L	55,400	178,000 [171,000]	NA	NA	56,100	55,900	64,600
Chromium Total (Dissolved)	ug/L	50 U	50 U [50 U]	5 U [5 U]	NA	50 U	50 U	50 U
Cobalt (Dissolved)	ug/L	50 U	50 U [50 U]	NA	NA	50 U	50 U	50 U
Copper (Dissolved)	ug/L	25 U	25 U [25 U]	25 U [25 U]	NA	25 U	25 U	25 U
Cyanide (Dissolved)	ug/L	NA	5 U [5 U]	10 U [10 U]	NA	NA	NA	NA
Iron (Dissolved)	ug/L	120	6,850 J [6,010 J]	10,300 [10,100]	NA	100 U	100 U	229
Lead (Dissolved)	ug/L	3 U	3 U [3 U]	3 U [3 U]	NA	3 U	3 U	3 U
Magnesium (Dissolved)	ug/L	7,920	36,600 [36,500]	NA	NA	9,540	12,500	11,300
Manganese (Dissolved)	ug/L	518	1,930 [1,850]	NA	NA	563	272	655
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Secondary Settling Pond MW-131WT 2 - 12 07/27/95	Secondary Settling Pond MW-150WT 3 - 13 06/13/96	Secondary Settling Pond MW-184WT 3 - 13 08/17/00	Secondary Settling Pond MW-185WT 3 - 8 11/28/07	Secondary Settling Pond TW-214S1 01/27/95	Secondary Settling Pond TW-214S2 01/27/95	Secondary Settling Pond TW-214WT 01/26/95
Inorganics-Dissolved (Cont'd.)								
Mercury (Dissolved)	ug/L	0.2 U	0.2 U [0.2 U]	0.2 U [0.2 U]	NA	0.2 U	0.2 U	0.2 U
Nickel (Dissolved)	ug/L	50 U	50 U [50 U]	40 U [40 U]	NA	50 U	50 U	50 U
Potassium (Dissolved)	ug/L	5,000 U	12,800 [14,400]	NA	NA	5,000 U	5,000 U	5,220 J
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 U	5 U [5 U]	5 U [5 U]	NA	5 UJ	5 UJ	5 UJ
Silver (Dissolved)	ug/L	0.5 U	0.5 UJ [0.5 UJ]	5 U [5 U]	NA	0.5 U	0.5 U	0.5 U
Sodium (Dissolved)	ug/L	26,000	84,500 [88,800]	NA	NA	23,200	30,100	29,200
Thallium (Dissolved)	ug/L	2 U	2 UJ [2 UJ]	NA	NA	2 U	2 U	2 U
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	20 U	20 U [20 U]	NA	NA	20 U	20 U	20 U
Zinc (Dissolved)	ug/L	20 U	34.8 U [20 U]	20 U [20 U]	NA	R	492	586
Miscellaneous								
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	NA	300 U [300 U]	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	NA	21.6 U [21.6 U]	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA
Nitrite (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	100 U [100 U]	NA	NA	NA
Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA
Sulfide	ug/L	NA	NA	NA	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	NA	400,000 [380,000]	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Secondary Settling Pond MW-131WT 2 - 12 07/27/95	Secondary Settling Pond MW-150WT 3 - 13 06/13/96	Secondary Settling Pond MW-184WT 3 - 13 08/17/00	Secondary Settling Pond MW-185WT 3 - 8 11/28/07	Secondary Settling Pond TW-214S1 01/27/95	Secondary Settling Pond TW-214S2 01/27/95	Secondary Settling Pond TW-214WT 01/26/95
Gases								
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Secondary Settling Pond TW-215S1 01/27/95	Secondary Settling Pond TW-215S2 01/27/95	Secondary Settling Pond TW-215S3 01/27/95	Secondary Settling Pond TW-215WT 01/26/95	Southern Drainage Channels MW-1A 07/17/95	Southern Drainage Channels MW-1B 07/15/95
Inorganics							
Aluminum	ug/L	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	5.00 UJ	5.00 UJ	5.00 UJ	5.00 UJ	5.00 U [5.00 U]	5.00 U
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved							
Aluminum (Dissolved)	ug/L	R	R	R	112	NA	100 U
Antimony (Dissolved)	ug/L	5 U	5 U	5 U	5 U	5.2 [5 U]	5 U
Arsenic (Dissolved)	ug/L	2.2	1.7	2.5	1.2	1.4 [1 U]	2.2
Barium (Dissolved)	ug/L	200 U	400	261	200 U	200 U [200 U]	200 U
Beryllium (Dissolved)	ug/L	5 U	5 U	5 U	5 U	5 U [5 U]	5 U
Cadmium (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 UJ [0.2 UJ]	0.84
Calcium (Dissolved)	ug/L	77,400	123,000	111,000	71,100	NA	114,000
Chromium Total (Dissolved)	ug/L	50 U	50 U	50 U	50 U	50 U [50 U]	50 U
Cobalt (Dissolved)	ug/L	50 U	50 U	50 U	50 U	50 U [50 U]	50 U
Copper (Dissolved)	ug/L	25 U	25 U	25 U	25 U	25 U [25 U]	25 U
Cyanide (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA
Iron (Dissolved)	ug/L	1,050	2,080	3,000	100 U	NA	9,590 J
Lead (Dissolved)	ug/L	3 U	3 U	3 U	3 U	3 U [3 U]	3 U
Magnesium (Dissolved)	ug/L	23,100	43,300	42,400	15,100	NA	38,300
Manganese (Dissolved)	ug/L	417	245	137	556	NA	463
Mercury	ug/L	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Secondary Settling Pond TW-215S1 01/27/95	Secondary Settling Pond TW-215S2 01/27/95	Secondary Settling Pond TW-215S3 01/27/95	Secondary Settling Pond TW-215WT 01/26/95	Southern Drainage Channels MW-1A 07/17/95	Southern Drainage Channels MW-1B 07/15/95
Inorganics-Dissolved (Cont'd.)							
Mercury (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U
Nickel (Dissolved)	ug/L	50 U	50 U	50 U	50 U	50 U [50 U]	50 U
Potassium (Dissolved)	ug/L	5,000 U	5,000 U	5,080 J	7,260 J	NA	5,000 U
Selenium	ug/L	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 UJ	5 UJ	5 UJ	5 UJ	5 U [5 U]	5 U
Silver (Dissolved)	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U [0.5 U]	0.5 U
Sodium (Dissolved)	ug/L	53,700	124,000	182,000	39,900	NA	115,000
Thallium (Dissolved)	ug/L	2 UJW	2 UJW	2 UJW	2 U	2 UJ [2 UJ]	2 U
Tin (Dissolved)	ug/L	NA	NA	NA	NA	100 U [100 U]	NA
Vanadium (Dissolved)	ug/L	20 U	20 U	20 U	20 U	20 U [20 U]	20 U
Zinc (Dissolved)	ug/L	586	319	925	R	20 U [20 U]	R
Miscellaneous							
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	NA	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	NA	NA	NA	NA	NA
Nitrite (as N)	ug/L	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	NA	NA	NA	NA	NA	NA
Sulfide	ug/L	NA	NA	NA	NA	500 U [500 U]	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	NA	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA

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TABLE A-2
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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Secondary Settling Pond TW-215S1 01/27/95	Secondary Settling Pond TW-215S2 01/27/95	Secondary Settling Pond TW-215S3 01/27/95	Secondary Settling Pond TW-215WT 01/26/95	Southern Drainage Channels MW-1A 07/17/95	Southern Drainage Channels MW-1B 07/15/95
Gases							
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA

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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels MW-1CAUG 07/15/95	Southern Drainage Channels MW-117S1 24.2 - 29.2 06/20/95	Southern Drainage Channels MW-117S1 24.2 - 29.2 07/14/95	Southern Drainage Channels MW-117S1 24.2 - 29.2 06/11/96	Southern Drainage Channels MW-117S1 24.2 - 29.2 05/19/00	Southern Drainage Channels MW-117S1 24.2 - 29.2 06/19/01
Inorganics							
Aluminum	ug/L	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	5.00 U	5.00 U	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	0.200 UJ
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved							
Aluminum (Dissolved)	ug/L	100 U	117	NA	120	100 U	100 U
Antimony (Dissolved)	ug/L	5 U	5 U	NA	5 U	5 U	5 U
Arsenic (Dissolved)	ug/L	1.3	1.2	NA	NA	10 U	10 U
Barium (Dissolved)	ug/L	200 U	1,410	NA	1,670	1,720	1,740
Beryllium (Dissolved)	ug/L	5 U	5 U	NA	NA	4 U	4 U
Cadmium (Dissolved)	ug/L	0.2 U	0.2 U	NA	NA	1 U	1 U
Calcium (Dissolved)	ug/L	129,000	133,000 J	NA	NA	163,000	157,000
Chromium Total (Dissolved)	ug/L	50 U	50 U	NA	NA	5 U	5 U
Cobalt (Dissolved)	ug/L	50 U	50 U	NA	NA	40 U	40 U
Copper (Dissolved)	ug/L	25 U	25 U	NA	NA	25 U	25 U
Cyanide (Dissolved)	ug/L	NA	NA	NA	NA	5 U	5 U
Iron (Dissolved)	ug/L	3,990 J	5,780	NA	8,260	8,730	9,120
Lead (Dissolved)	ug/L	3 U	3 UJ	NA	3 U	3 U	3 U
Magnesium (Dissolved)	ug/L	48,200	42,500	NA	50,400	52,100	51,700
Manganese (Dissolved)	ug/L	148	347	NA	330	341	340
Mercury	ug/L	NA	NA	NA	NA	NA	NA

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels MW-1CAUG 07/15/95	Southern Drainage Channels MW-117S1 24.2 - 29.2 06/20/95	Southern Drainage Channels MW-117S1 24.2 - 29.2 07/14/95	Southern Drainage Channels MW-117S1 24.2 - 29.2 06/11/96	Southern Drainage Channels MW-117S1 24.2 - 29.2 05/19/00	Southern Drainage Channels MW-117S1 24.2 - 29.2 06/19/01
Inorganics-Dissolved (Cont'd.)							
Mercury (Dissolved)	ug/L	0.2 U	0.2 UJ	NA	NA	0.2 U	NA
Nickel (Dissolved)	ug/L	50 U	50 U	NA	50 U	40 U	40 U
Potassium (Dissolved)	ug/L	5,000 U	5,000 U	NA	NA	2,330 B	2,270 BJ
Selenium	ug/L	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 U	5 UJ	NA	NA	5 U	5 U
Silver (Dissolved)	ug/L	0.5 U	0.5 U	NA	NA	5 U	5 U
Sodium (Dissolved)	ug/L	233,000	101,000	NA	108,000	120,000	121,000
Thallium (Dissolved)	ug/L	2 UJ	2 UJ	NA	NA	5 B	10 U
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	20 U	20 U	NA	NA	50 U	50 U
Zinc (Dissolved)	ug/L	20 U	R	NA	20 U	20 U	12.3 B
Miscellaneous							
Alkalinity, Carbonate	ug/L	NA	NA	20,000 U	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	1,000 UJ	NA	5,100	11,000
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	10,000	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	73,000	NA	NA	NA
Chloride	ug/L	NA	NA	230,000	NA	284,000 J	269,000
Estimated Un-ionized Ammonia	ug/L	NA	NA	72 UJ	NA	367.2	792
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA
Hardness	ug/L	NA	NA	650,000	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	NA	NA	NA	1,000 UG	500 U
Nitrite (as N)	ug/L	NA	NA	NA	NA	1,000 UG	R
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA	7	8
Phenolics (Total)	ug/L	NA	NA	25	NA	NA	NA
Phosphorus	ug/L	NA	NA	200	NA	NA	NA
Sulfate	ug/L	NA	NA	NA	NA	2,000 UG	260 B
Sulfide	ug/L	NA	NA	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	990,000	NA	840,000	920,000
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	64,000	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels MW-1CAUG 07/15/95	Southern Drainage Channels MW-117S1 24.2 - 29.2 06/20/95	Southern Drainage Channels MW-117S1 24.2 - 29.2 07/14/95	Southern Drainage Channels MW-117S1 24.2 - 29.2 06/11/96	Southern Drainage Channels MW-117S1 24.2 - 29.2 05/19/00	Southern Drainage Channels MW-117S1 24.2 - 29.2 06/19/01
Gases							
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels MW-117S1 24.2 - 29.2 06/26/02	Southern Drainage Channels MW-117S1 24.2 - 29.2 06/19/03	Southern Drainage Channels MW-117S1 24.2 - 29.2 05/27/04	Southern Drainage Channels MW-117S1 24.2 - 29.2 06/23/05	Southern Drainage Channels MW-117S1 24.2 - 29.2 12/13/06	Southern Drainage Channels MW-117S1 24.2 - 29.2 12/07/07
Inorganics							
Aluminum	ug/L	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved							
Aluminum (Dissolved)	ug/L	100 U	100 U	100 U	200 U	200 U	200 U
Antimony (Dissolved)	ug/L	5 U	5 U	5 U	2 U	2 U	2 U
Arsenic (Dissolved)	ug/L	10 U	10 U	10 U	2.7	5 U	5 U
Barium (Dissolved)	ug/L	1,740	1,800	1,780	1,530 J	2,010	1,890
Beryllium (Dissolved)	ug/L	4 U	4 U	4 U	1 U	1 U	1 U
Cadmium (Dissolved)	ug/L	1 U	1 U	1 U	0.5 U	1 U	1 U
Calcium (Dissolved)	ug/L	156,000	171,000	167,000 J	165,000 J	152,000	167,000
Chromium Total (Dissolved)	ug/L	5 U	5 U	5 U	2 U	5 U	5 U
Cobalt (Dissolved)	ug/L	40 U	40 U	40 U	0.75 B	7 U	7 U
Copper (Dissolved)	ug/L	25 U	25 U	25 U	0.56 BJ	0.84 J	2 U
Cyanide (Dissolved)	ug/L	5 U	5 U	5 U	10 U	10 U	10 U
Iron (Dissolved)	ug/L	8,650	9,160	10,100	8,150	8,980	9,480
Lead (Dissolved)	ug/L	3 U	3 U	3 U	0.38 B	3 U	3 U
Magnesium (Dissolved)	ug/L	49,400	52,900	51,800 J	52,600	47,600	54,400
Manganese (Dissolved)	ug/L	326	354	326 J	289 J	329	332
Mercury	ug/L	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels MW-117S1 24.2 - 29.2 06/26/02	Southern Drainage Channels MW-117S1 24.2 - 29.2 06/19/03	Southern Drainage Channels MW-117S1 24.2 - 29.2 05/27/04	Southern Drainage Channels MW-117S1 24.2 - 29.2 06/23/05	Southern Drainage Channels MW-117S1 24.2 - 29.2 12/13/06	Southern Drainage Channels MW-117S1 24.2 - 29.2 12/07/07
Inorganics-Dissolved (Cont'd.)							
Mercury (Dissolved)	ug/L	0.2 UJ	0.2 UJ	0.2 U	0.2 U	0.2 U	0.2 U
Nickel (Dissolved)	ug/L	40 U	40 U	40 U	2.3	20 U	20 U
Potassium (Dissolved)	ug/L	2,490 BJ	2,540 B	2,330 J	2,390 B	2,410	2,720 J
Selenium	ug/L	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 U	5 U	5 U	5.4	5 U	5 U
Silver (Dissolved)	ug/L	5 U	5 U	5 U	0.5 U	R	0.2 U
Sodium (Dissolved)	ug/L	114,000	118,000	115,000	118,000	118,000	129,000
Thallium (Dissolved)	ug/L	10 UJ	10 U	10 U	0.39 B	1 U	1 U
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	50 U	50 U	50 U	5 U	4 U	4 U
Zinc (Dissolved)	ug/L	20 U	20 U	20 U	54.7 J	20 U	19.7 J
Miscellaneous							
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	7,100	7,400	7,300	8,400 J	8,200	22,000
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA
Chloride	ug/L	270,000	264,000	275,000	270,000	267,000	268,000
Estimated Un-ionized Ammonia	ug/L	511.2	532.8	525.6	604.8 J	590.4	1,584
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	500 U	500 U	500 U	100 U	100 U	100 U
Nitrite (as N)	ug/L	500 U	140 BJ	160 B	100 U	100 U	100 U
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA
pH	S.U.	8	8.1	7	7	7.1 J	7
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	140 B	1,000 UJ	440 B	1,000 U	1,000 U	1,000 U
Sulfide	ug/L	NA	NA	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	970,000	1,000,000	1,000,000	970,000 J	960,000	950,000
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels MW-117S1 24.2 - 29.2 06/26/02	Southern Drainage Channels MW-117S1 24.2 - 29.2 06/19/03	Southern Drainage Channels MW-117S1 24.2 - 29.2 05/27/04	Southern Drainage Channels MW-117S1 24.2 - 29.2 06/23/05	Southern Drainage Channels MW-117S1 24.2 - 29.2 12/13/06	Southern Drainage Channels MW-117S1 24.2 - 29.2 12/07/07
Gases							
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels MW-117S1 24.2 - 29.2 03/14/08	Southern Drainage Channels MW-117S2 35 - 40 06/20/95	Southern Drainage Channels MW-117S2 35 - 40 07/14/95	Southern Drainage Channels MW-117S2 35 - 40 06/11/96	Southern Drainage Channels MW-117S2 35 - 40 12/13/06	Southern Drainage Channels MW-117S2 35 - 40 12/07/07
Inorganics							
Aluminum	ug/L	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	5.00 U	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved							
Aluminum (Dissolved)	ug/L	200 U	117	NA	100 U	200 U	200 U
Antimony (Dissolved)	ug/L	2 U	5 U	NA	5 U	2 U	2 U
Arsenic (Dissolved)	ug/L	3.9 J	8.2	NA	NA	13.5	14.9
Barium (Dissolved)	ug/L	1,810	614	NA	852	1,090	1,060
Beryllium (Dissolved)	ug/L	1 U	5 U	NA	NA	1 U	1 U
Cadmium (Dissolved)	ug/L	1 U	0.2 U	NA	NA	1 U	1 U
Calcium (Dissolved)	ug/L	152,000	99,300 J	NA	NA	127,000	141,000
Chromium Total (Dissolved)	ug/L	5 U	50 U	NA	NA	5 U	5 U
Cobalt (Dissolved)	ug/L	7 U	50 U	NA	NA	7 U	7 U
Copper (Dissolved)	ug/L	2 U	25 U	NA	NA	0.77 J	2 U
Cyanide (Dissolved)	ug/L	10 U	NA	NA	NA	10 U	10 U
Iron (Dissolved)	ug/L	7,350	3,440	NA	7,300	7,540	8,410
Lead (Dissolved)	ug/L	3 U	3 UJ	NA	3 U	3 U	3 U
Magnesium (Dissolved)	ug/L	48,400	36,200	NA	50,800	45,100	51,800
Manganese (Dissolved)	ug/L	312	130	NA	93.4	84	85.1
Mercury	ug/L	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels MW-117S1 24.2 - 29.2 03/14/08	Southern Drainage Channels MW-117S2 35 - 40 06/20/95	Southern Drainage Channels MW-117S2 35 - 40 07/14/95	Southern Drainage Channels MW-117S2 35 - 40 06/11/96	Southern Drainage Channels MW-117S2 35 - 40 12/13/06	Southern Drainage Channels MW-117S2 35 - 40 12/07/07
Inorganics-Dissolved (Cont'd.)							
Mercury (Dissolved)	ug/L	0.2 U	0.2 UJ	NA	NA	0.2 U	0.2 U
Nickel (Dissolved)	ug/L	20 U	50 U	NA	50 U	20 U	20 U
Potassium (Dissolved)	ug/L	2,480 J	36,700	NA	NA	3,100	3,680 J
Selenium	ug/L	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 U	5 UJ	NA	NA	5 U	5 U
Silver (Dissolved)	ug/L	0.2 U	0.5 U	NA	NA	R	0.2 U
Sodium (Dissolved)	ug/L	113,000	163,000	NA	168,000	195,000	216,000
Thallium (Dissolved)	ug/L	1 U	2 UJ	NA	NA	1 U	1 U
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	4 U	20 U	NA	NA	4 U	4 U
Zinc (Dissolved)	ug/L	20 U	R	NA	20 U	20 U	20 U
Miscellaneous							
Alkalinity, Carbonate	ug/L	NA	NA	20,000 U	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	1,200	NA	1,000 UJ	NA	3,900	3,900
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	6,000 J	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	20,000 U	NA	NA	NA
Chloride	ug/L	274,000	NA	320,000	NA	368,000	378,000
Estimated Un-ionized Ammonia	ug/L	86.4	NA	72 UJ	NA	280.8	280.8
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA
Hardness	ug/L	NA	NA	640,000	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	100 UJ	NA	NA	NA	100 U	100 U
Nitrite (as N)	ug/L	100 UJ	NA	NA	NA	100 U	100 U
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA
pH	S.U.	6.9	NA	NA	NA	7.5 J	7.2
Phenolics (Total)	ug/L	NA	NA	35	NA	NA	NA
Phosphorus	ug/L	NA	NA	1,200	NA	NA	NA
Sulfate	ug/L	1,000 U	NA	NA	NA	10,900	11,300
Sulfide	ug/L	NA	NA	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	940,000	NA	1,100,000	NA	1,000,000	1,000,000
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	62,000	NA	NA	NA

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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels MW-117S1 24.2 - 29.2 03/14/08	Southern Drainage Channels MW-117S2 35 - 40 06/20/95	Southern Drainage Channels MW-117S2 35 - 40 07/14/95	Southern Drainage Channels MW-117S2 35 - 40 06/11/96	Southern Drainage Channels MW-117S2 35 - 40 12/13/06	Southern Drainage Channels MW-117S2 35 - 40 12/07/07
Gases							
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA

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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels MW-117S2 35 - 40 04/01/08	Southern Drainage Channels MW-117WT 3 - 13 06/20/95	Southern Drainage Channels MW-117WT 3 - 13 07/14/95	Southern Drainage Channels MW-117WT 3 - 13 06/11/96	Southern Drainage Channels MW-117WT 3 - 13 05/19/00	Southern Drainage Channels MW-117WT 3 - 13 06/18/01
Inorganics							
Aluminum	ug/L	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	5.00 U	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	0.200 UJ
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved							
Aluminum (Dissolved)	ug/L	200 U	350	NA	100 U	100 U	100 U
Antimony (Dissolved)	ug/L	2 U	5 U	NA	5 U	5 U	5 U
Arsenic (Dissolved)	ug/L	15.4 U	1.3	NA	NA	10 U	10 U
Barium (Dissolved)	ug/L	1,120	2,210	NA	2,520	3,580	3,170
Beryllium (Dissolved)	ug/L	1 U	5 U	NA	NA	4 U	4 U
Cadmium (Dissolved)	ug/L	1 U	0.2 U	NA	NA	1 U	1.8
Calcium (Dissolved)	ug/L	137,000	1,340,000 J	NA	NA	1,200,000	1,090,000
Chromium Total (Dissolved)	ug/L	2.4 J	50 U	NA	NA	5 U	5 U
Cobalt (Dissolved)	ug/L	7 U	50 U	NA	NA	40 U	40 U
Copper (Dissolved)	ug/L	0.5 J	25 U	NA	NA	25 U	25 U
Cyanide (Dissolved)	ug/L	10 U	NA	NA	NA	5 U	5 U
Iron (Dissolved)	ug/L	7,960	100,000	NA	124,000	149,000	137,000
Lead (Dissolved)	ug/L	3 U	3 UJ	NA	3 U	3 U	3 U
Magnesium (Dissolved)	ug/L	49,200	485,000	NA	545,000	593,000	550,000
Manganese (Dissolved)	ug/L	86.1	5,130	NA	5,190	5,510	4,900
Mercury	ug/L	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels MW-117S2 35 - 40 04/01/08	Southern Drainage Channels MW-117WT 3 - 13 06/20/95	Southern Drainage Channels MW-117WT 3 - 13 07/14/95	Southern Drainage Channels MW-117WT 3 - 13 06/11/96	Southern Drainage Channels MW-117WT 3 - 13 05/19/00	Southern Drainage Channels MW-117WT 3 - 13 06/18/01
Inorganics-Dissolved (Cont'd.)							
Mercury (Dissolved)	ug/L	0.2 U	0.2 UJ	NA	NA	0.2 U	NA
Nickel (Dissolved)	ug/L	20 U	50 U	NA	50 U	23.3 B	18.2 B
Potassium (Dissolved)	ug/L	3,490	6,960	NA	NA	41,300	39,800 J
Selenium	ug/L	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 U	5 UJ	NA	NA	5 U	5 U
Silver (Dissolved)	ug/L	0.2 U	0.5 U	NA	NA	5 U	5 U
Sodium (Dissolved)	ug/L	192,000	463,000	NA	499,000	590,000	559,000
Thallium (Dissolved)	ug/L	1 U	4 UJ	NA	NA	17.9	10 U
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	4 U	20 U	NA	NA	50 U	50 U
Zinc (Dissolved)	ug/L	20 U	R	NA	20 U	20 U	20 U
Miscellaneous							
Alkalinity, Carbonate	ug/L	NA	NA	20,000 U	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	3,800	NA	30,000 J	NA	46,000	63,000
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	29,000	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	520,000	NA	NA	NA
Chloride	ug/L	411,000	NA	4,600,000	NA	4,930,000 J	5,380,000
Estimated Un-ionized Ammonia	ug/L	273.6	NA	2,160 J	NA	3,312	4,536
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA
Hardness	ug/L	NA	NA	6,200,000	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	100 U	NA	NA	NA	12,500 UG	500 U
Nitrite (as N)	ug/L	100 U	NA	NA	NA	12,500 UG	R
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA
pH	S.U.	7	NA	NA	NA	6.4	7.1
Phenolics (Total)	ug/L	NA	NA	44	NA	NA	NA
Phosphorus	ug/L	NA	NA	100 U	NA	NA	NA
Sulfate	ug/L	15,600	NA	NA	NA	25,000 UG	230 B
Sulfide	ug/L	NA	NA	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	1,000,000	NA	11,000,000	NA	11,000,000	13,000,000
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	240,000	NA	NA	NA

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TABLE A-2
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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels MW-117S2 35 - 40 04/01/08	Southern Drainage Channels MW-117WT 3 - 13 06/20/95	Southern Drainage Channels MW-117WT 3 - 13 07/14/95	Southern Drainage Channels MW-117WT 3 - 13 06/11/96	Southern Drainage Channels MW-117WT 3 - 13 05/19/00	Southern Drainage Channels MW-117WT 3 - 13 06/18/01
Gases							
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA

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GENERAL MOTORS CORPORATION
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SAGINAW, MICHIGAN

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Inorganics							
Aluminum	ug/L	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved							
Aluminum (Dissolved)	ug/L	100 U	100 U	NA	200 U	200 U	200 U
Antimony (Dissolved)	ug/L	5 U	5 U	2 U [2 U]	0.29 B	2 U	2 U
Arsenic (Dissolved)	ug/L	2.2 B	10 U	4.1 [4.6 J]	4.5	5 U	5 U
Barium (Dissolved)	ug/L	2,970	3,250	3,110 J [2,880 J]	2,360 J	2,710	2,880
Beryllium (Dissolved)	ug/L	4 U	4 U	1 U [1 U]	1 U	1 U	1 U
Cadmium (Dissolved)	ug/L	1 U	3.8	0.5 U [0.5 U]	0.5 U	1 U	1 U
Calcium (Dissolved)	ug/L	1,110,000	1,160,000	NA	896,000 J	788,000	871,000
Chromium Total (Dissolved)	ug/L	5 U	5 U	2 U [2 U]	1.2 B	5 U	5 U
Cobalt (Dissolved)	ug/L	40 U	40 U	3.6 [2.3]	2.5	7 U	7 U
Copper (Dissolved)	ug/L	25 U	25 U	3.1 U [2.7 U]	2.7 J	2.4	3.1
Cyanide (Dissolved)	ug/L	5 U	5 U	10 U [10 U]	10 U	10 U	10 U
Iron (Dissolved)	ug/L	128,000	139,000	143,000 J [125,000 J]	122,000	105,000	124,000
Lead (Dissolved)	ug/L	3 U	3 U	1 U [1 U]	1 U	1.9 J	3 U
Magnesium (Dissolved)	ug/L	518,000	584,000	NA	471,000	387,000	466,000
Manganese (Dissolved)	ug/L	4,850	5,480	5,150 J [3,970 J]	3,810 J	4,000	4,460
Mercury	ug/L	NA	NA	NA	NA	NA	NA

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INORGANIC COMPOUNDS

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SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels MW-117WT 3 - 13 06/26/02	Southern Drainage Channels MW-117WT 3 - 13 06/19/03	Southern Drainage Channels MW-117WT 3 - 13 12/09/04	Southern Drainage Channels MW-117WT 3 - 13 06/23/05	Southern Drainage Channels MW-117WT 3 - 13 12/13/06	Southern Drainage Channels MW-117WT 3 - 13 12/07/07
Inorganics-Dissolved (Cont'd.)							
Mercury (Dissolved)	ug/L	0.2 UJ	0.2 UJ	0.2 U [0.2 U]	0.2 U	0.11 J	0.2 U
Nickel (Dissolved)	ug/L	18 B	19.7 B	33.5 J [29.1 J]	25.2	18.7 J	50.8
Potassium (Dissolved)	ug/L	40,500 J	47,000	NA	42,800	44,700	62,500 J
Selenium	ug/L	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 U	5 U	14 J [14.3 J]	16.1	5 U	5 U
Silver (Dissolved)	ug/L	5 U	5 U	0.5 U [0.5 UJ]	0.5 U	R	0.2 U
Sodium (Dissolved)	ug/L	539,000	628,000	NA	564,000	531,000	620,000
Thallium (Dissolved)	ug/L	8.9 BJ	10 U	1 U [1 U]	1 U	1 U	1 U
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	50 U	50 U	5 U [5 U]	5 U	4 U	4 U
Zinc (Dissolved)	ug/L	20 U	20 U	54 U [55.8 UJ]	70.4 J	20 U	20 U
Miscellaneous							
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	63,000	63,000	65,000 [69,000]	59,000 J	75,000	68,000
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA
Chloride	ug/L	5,540,000	4,680,000	4,650,000 J [4,420,000 J]	3,970,000	3,680,000	3,690,000
Estimated Un-ionized Ammonia	ug/L	4,536	4,536	4,680 [4,968]	4,248 J	5,400	4,896
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	1,000 U	1,000 U	100 U [100 U]	100 U	750	100 U
Nitrite (as N)	ug/L	25,000 U	25,000 U	1,000 UG [1,000 UG]	2,000 U	3,600	100 U
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA
pH	S.U.	7.2	7.1	7.2 [7.2]	6.4	6.5 J	6.4
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	320 B	340 BJG	240 B [1,000 U]	230 B	270 J	800 J
Sulfide	ug/L	NA	NA	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	11,000,000 J [12,000,000]	13,000,000	7,800,000 J [7,900,000 J]	9,600,000 J	7,800,000	7,600,000
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

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Gases							
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels MW-117WT 3 - 13 03/14/08	Southern Drainage Channels MW-118S1 23.5 - 28.5 06/20/95	Southern Drainage Channels MW-118S1 23.5 - 28.5 07/14/95	Southern Drainage Channels MW-118S1 23.5 - 28.5 06/11/96	Southern Drainage Channels MW-118S1 23.5 - 28.5 05/17/00	Southern Drainage Channels MW-118S1 23.5 - 28.5 06/19/01
Inorganics							
Aluminum	ug/L	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	5.00 U	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	4,970	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	372	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	0.200 UJ
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved							
Aluminum (Dissolved)	ug/L	200 U	219	NA	100 U	100 U [100 U]	100 U
Antimony (Dissolved)	ug/L	2 U	5 U	NA	5 U	5 U [5 U]	5 U
Arsenic (Dissolved)	ug/L	5 U	1.8	NA	NA	10 U [10 U]	10 U
Barium (Dissolved)	ug/L	2,670	482	NA	532	593 [612]	645
Beryllium (Dissolved)	ug/L	1 U	5 U	NA	NA	4 U [4 U]	4 U
Cadmium (Dissolved)	ug/L	2.1	0.2 U	NA	NA	1 U [1 U]	1 U
Calcium (Dissolved)	ug/L	829,000	120,000 J	NA	NA	156,000 [156,000]	151,000
Chromium Total (Dissolved)	ug/L	5 U	50 U	NA	NA	5 U [5 U]	5 U
Cobalt (Dissolved)	ug/L	7 U	50 U	NA	NA	40 U [40 U]	40 U
Copper (Dissolved)	ug/L	2 U	25 U	NA	NA	25 U [25 U]	25 U
Cyanide (Dissolved)	ug/L	10 U	NA	NA	NA	5 U [5 U]	5 U
Iron (Dissolved)	ug/L	112,000	2,500	NA	5,390	6,090 [6,150]	7,070
Lead (Dissolved)	ug/L	3 U	3 UJ	NA	3 U	3 U [3 U]	3 U
Magnesium (Dissolved)	ug/L	441,000	38,100	NA	47,000	49,300 [49,800]	49,400
Manganese (Dissolved)	ug/L	4,160	347	NA	383	420 [415]	428
Mercury	ug/L	NA	NA	NA	NA	NA	NA

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Inorganics-Dissolved (Cont'd.)							
Mercury (Dissolved)	ug/L	0.2 U	0.2 UJ	NA	NA	0.2 U [0.2 U]	NA
Nickel (Dissolved)	ug/L	17.4 J	50 U	NA	50 U	40 U [40 U]	40 U
Potassium (Dissolved)	ug/L	45,600 J	5,000 U	NA	NA	2,170 B [2,180 B]	2,120 BJ
Selenium	ug/L	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 U	5 UJ	NA	NA	5 U [5 U]	5 U
Silver (Dissolved)	ug/L	0.2 U	0.5 U	NA	NA	5 U [5 U]	5 U
Sodium (Dissolved)	ug/L	545,000	97,300	NA	112,000	121,000 [122,000]	117,000
Thallium (Dissolved)	ug/L	1 U	2 UJ	NA	NA	8.1 B [5.4 B]	10 U
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	4 U	20 U	NA	NA	50 U [50 U]	50 U
Zinc (Dissolved)	ug/L	20 U	R	NA	35.8 U	20 U [20 U]	20 U
Miscellaneous							
Alkalinity, Carbonate	ug/L	NA	NA	20,000 U	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	68,000	NA	4,800 J	NA	5,900 [6,200]	8,400
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	7,000	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	75,000	NA	NA	NA
Chloride	ug/L	3,220,000	NA	260,000	NA	284,000 [281,000]	272,000
Estimated Un-ionized Ammonia	ug/L	4,896	NA	345.6 J	NA	424.8 [446.4]	604.8
Ferrous Iron	ug/L	NA	NA	NA	680	6,100	NA
Hardness	ug/L	NA	NA	560,000	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	5,700	NA
Manganese	ug/L	NA	NA	NA	NA	370	NA
Nitrate (as N)	ug/L	200 UJ	NA	NA	80 U	2,000 UG [2,000 UG]	500 U
Nitrite (as N)	ug/L	200 UJ	NA	NA	70 U	2,000 UG [2,000 UG]	R
Nitrogen	ug/L	NA	NA	NA	NA	50 U	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA
pH	S.U.	6.3	NA	NA	NA	7 [7]	8
Phenolics (Total)	ug/L	NA	NA	20 U	NA	NA	NA
Phosphorus	ug/L	NA	NA	200	NA	NA	NA
Sulfate	ug/L	2,000 U	NA	NA	5,000 U	4,000 UG [4,000 UG]	150 B
Sulfide	ug/L	NA	NA	NA	800	2,000 U	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	5,900,000	NA	8,000,000	NA	930,000 [940,000]	910,000
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	3,200	10,000	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	31,000	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels MW-117WT 3 - 13 03/14/08	Southern Drainage Channels MW-118S1 23.5 - 28.5 06/20/95	Southern Drainage Channels MW-118S1 23.5 - 28.5 07/14/95	Southern Drainage Channels MW-118S1 23.5 - 28.5 06/11/96	Southern Drainage Channels MW-118S1 23.5 - 28.5 05/17/00	Southern Drainage Channels MW-118S1 23.5 - 28.5 06/19/01
Gases							
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	88,900	78,440	NA
Carbon monoxide	ug/L	NA	NA	NA	400 U	400 U	NA
Dissolved Oxygen	ug/L	NA	NA	NA	500	580	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	11,500	8,990	NA
Nitrogen	ug/L	NA	NA	NA	10,500	9,480	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels MW-118S1 23.5 - 28.5 06/27/02	Southern Drainage Channels MW-118S1 23.5 - 28.5 06/19/03	Southern Drainage Channels MW-118S1 23.5 - 28.5 12/09/04	Southern Drainage Channels MW-118S1 23.5 - 28.5 06/23/05	Southern Drainage Channels MW-118S1 23.5 - 28.5 12/14/06	Southern Drainage Channels MW-118S1 23.5 - 28.5 12/07/07
Inorganics							
Aluminum	ug/L	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved							
Aluminum (Dissolved)	ug/L	100 U	100 U	NA	200 U	200 U	200 U
Antimony (Dissolved)	ug/L	5 U	5 U	2 U	2 U	2 U	2 U
Arsenic (Dissolved)	ug/L	10 U	10 U	2.3 J	1.9 B	5 U	5 U
Barium (Dissolved)	ug/L	622	713	718 J	676 JE	727	753
Beryllium (Dissolved)	ug/L	4 U	4 U	1 U	1 U	1 U	1 U
Cadmium (Dissolved)	ug/L	1 U	1 U	0.5 U	0.5 U	1 U	1 U
Calcium (Dissolved)	ug/L	151,000	172,000	NA	160,000 J	145,000	168,000
Chromium Total (Dissolved)	ug/L	5 U	5 U	2 U	2 U	5 U	5 U
Cobalt (Dissolved)	ug/L	40 U	40 U	1 U	0.68 B	7 U	7 U
Copper (Dissolved)	ug/L	25 U	25 U	2 U	2 U	2 U	2 U
Cyanide (Dissolved)	ug/L	5 U	5 U	10 U	10 U	10 U	10 U
Iron (Dissolved)	ug/L	6,070	7,570	7,420 J	6,630	5,930	6,940
Lead (Dissolved)	ug/L	3 U	3 U	1 U	1 U	3 U	3 U
Magnesium (Dissolved)	ug/L	47,900	53,700	NA	50,900	46,100	54,900
Manganese (Dissolved)	ug/L	408	476	405 J	370 J	401	425
Mercury	ug/L	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels MW-118S1 23.5 - 28.5 06/27/02	Southern Drainage Channels MW-118S1 23.5 - 28.5 06/19/03	Southern Drainage Channels MW-118S1 23.5 - 28.5 12/09/04	Southern Drainage Channels MW-118S1 23.5 - 28.5 06/23/05	Southern Drainage Channels MW-118S1 23.5 - 28.5 12/14/06	Southern Drainage Channels MW-118S1 23.5 - 28.5 12/07/07
Inorganics-Dissolved (Cont'd.)							
Mercury (Dissolved)	ug/L	0.2 UJ	0.2 UJ	0.2 U	0.2 U	0.2 U	0.2 U
Nickel (Dissolved)	ug/L	40 U	40 U	3.1 UJ	2.3	20 U	20 U
Potassium (Dissolved)	ug/L	2,380 BJ	2,510 B	NA	2,520 BE	2,400	2,970 J
Selenium	ug/L	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 U	5 U	5.9 J	3.5	5 U	5 U
Silver (Dissolved)	ug/L	5 U	5 U	0.5 UJ	0.5 U	0.2 UJ	0.2 U
Sodium (Dissolved)	ug/L	112,000	118,000	NA	112,000	115,000	131,000
Thallium (Dissolved)	ug/L	10 UJ	10 U	1 U	1 U	1 U	1 U
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	50 U	50 U	5 U	5 U	4 U	4 U
Zinc (Dissolved)	ug/L	20 U	20 U	20.7 UJ	25.8 J	20 U	20 U
Miscellaneous							
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	7,300	6,200	5,900	7,300 J	8,000	8,500
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA
Chloride	ug/L	286,000	264,000	270,000 J	296,000	290,000	275,000
Estimated Un-ionized Ammonia	ug/L	525.6	446.4	424.8	525.6 J	576	612
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	500 U	500 U	100 U	100 U	100 U	100 U
Nitrite (as N)	ug/L	500 U	500 U	100 U	100 U	160	100 U
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA
pH	S.U.	7.1	8.1	8	7	7.1 J	7
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	1,600	1,000 UJ	1,000 U	1,000 U	1,000 U	1,000 U
Sulfide	ug/L	NA	NA	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	1,200,000 [1,200,000]	1,000,000	980,000 J	520,000 J	1,000,000	900,000
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels MW-118S1 23.5 - 28.5 06/27/02	Southern Drainage Channels MW-118S1 23.5 - 28.5 06/19/03	Southern Drainage Channels MW-118S1 23.5 - 28.5 12/09/04	Southern Drainage Channels MW-118S1 23.5 - 28.5 06/23/05	Southern Drainage Channels MW-118S1 23.5 - 28.5 12/14/06	Southern Drainage Channels MW-118S1 23.5 - 28.5 12/07/07
Gases							
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels MW-118S1 23.5 - 28.5 04/01/08	Southern Drainage Channels MW-118S2 38.5 - 43.5 06/20/95	Southern Drainage Channels MW-118S2 38.5 - 43.5 07/14/95	Southern Drainage Channels MW-118S2 38.5 - 43.5 06/11/96	Southern Drainage Channels MW-118S2 38.5 - 43.5 05/18/00	Southern Drainage Channels MW-118S2 38.5 - 43.5 12/14/06
Inorganics							
Aluminum	ug/L	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	5.00 U [5.00 U]	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	2,480	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	73.4	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved							
Aluminum (Dissolved)	ug/L	200 U	227 [175]	NA	100 U	NA	200 U
Antimony (Dissolved)	ug/L	2 U	5 U [5 U]	NA	5 U	NA	2 U
Arsenic (Dissolved)	ug/L	5 U	8.4 [8.7]	NA	NA	NA	6.8
Barium (Dissolved)	ug/L	763	241 [255]	NA	221	NA	229
Beryllium (Dissolved)	ug/L	1 U	5 U [5 U]	NA	NA	NA	1 U
Cadmium (Dissolved)	ug/L	1 U	0.2 U [0.2 U]	NA	NA	NA	1 U
Calcium (Dissolved)	ug/L	156,000	104,000 J [112,000 J]	NA	NA	NA	105,000
Chromium Total (Dissolved)	ug/L	5 U	50 U [50 U]	NA	NA	NA	5 U
Cobalt (Dissolved)	ug/L	7 U	50 U [50 U]	NA	NA	NA	7 U
Copper (Dissolved)	ug/L	0.7 J	25 U [25 U]	NA	NA	NA	0.62 J
Cyanide (Dissolved)	ug/L	10 U	NA	NA	NA	NA	10 U
Iron (Dissolved)	ug/L	6,340	1,890 [2,020]	NA	2,450	2,300	2,160
Lead (Dissolved)	ug/L	3 U	3 UJ [3 UJ]	NA	3 U	NA	3 U
Magnesium (Dissolved)	ug/L	49,400	38,700 [40,800]	NA	44,100	NA	40,200
Manganese (Dissolved)	ug/L	413	80.2 [92.6]	NA	76.1	70	76.1
Mercury	ug/L	NA	NA	NA	NA	NA	NA

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TABLE A-2
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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels MW-118S1 23.5 - 28.5 04/01/08	Southern Drainage Channels MW-118S2 38.5 - 43.5 06/20/95	Southern Drainage Channels MW-118S2 38.5 - 43.5 07/14/95	Southern Drainage Channels MW-118S2 38.5 - 43.5 06/11/96	Southern Drainage Channels MW-118S2 38.5 - 43.5 05/18/00	Southern Drainage Channels MW-118S2 38.5 - 43.5 12/14/06
Inorganics-Dissolved (Cont'd.)							
Mercury (Dissolved)	ug/L	0.2 U	0.2 UJ [0.2 UJ]	NA	NA	NA	0.2 U
Nickel (Dissolved)	ug/L	20 U	50 U [50 U]	NA	50 U	NA	20 U
Potassium (Dissolved)	ug/L	2,660	5,000 U [5,000 U]	NA	NA	NA	3,340
Selenium	ug/L	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 U	5 UJ [5 UJ]	NA	NA	NA	5 U
Silver (Dissolved)	ug/L	0.2 U	0.5 U [0.5]	NA	NA	NA	0.2 UJ
Sodium (Dissolved)	ug/L	115,000	198,000 [204,000]	NA	201,000	NA	272,000
Thallium (Dissolved)	ug/L	1 U	2 UJ [2 UJ]	NA	NA	NA	0.025 J
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	4 U	20 U [20 U]	NA	NA	NA	4 U
Zinc (Dissolved)	ug/L	20 U	20 U [R]	NA	20 U	NA	20 U
Miscellaneous							
Alkalinity, Carbonate	ug/L	NA	NA	20,000 U	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	8,100	NA	1,000 UJ	NA	NA	3,000
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	2,000 UJ	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	50,000	NA	NA	NA
Chloride	ug/L	310,000	NA	360,000	NA	NA	437,000
Estimated Un-ionized Ammonia	ug/L	583.2	NA	72 UJ	NA	NA	216
Ferrous Iron	ug/L	NA	NA	NA	20 U	2,000	NA
Hardness	ug/L	NA	NA	530,000	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	2,300	NA
Manganese	ug/L	NA	NA	NA	NA	70	NA
Nitrate (as N)	ug/L	100 U	NA	NA	80 U	NA	100 U
Nitrite (as N)	ug/L	100 U	NA	NA	70 U	NA	250
Nitrogen	ug/L	NA	NA	NA	NA	50 U	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA
pH	S.U.	6.9	NA	NA	NA	NA	7.4 J
Phenolics (Total)	ug/L	NA	NA	20 U	NA	NA	NA
Phosphorus	ug/L	NA	NA	100 U	NA	NA	NA
Sulfate	ug/L	4,700	NA	NA	30,100	36,000	47,400
Sulfide	ug/L	NA	NA	NA	200 U	2,000 U	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	960,000	NA	1,200,000	NA	NA	1,200,000
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	4,200	11,000	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	36,000	NA	NA	NA

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INORGANIC COMPOUNDS

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels MW-118S1 23.5 - 28.5 04/01/08	Southern Drainage Channels MW-118S2 38.5 - 43.5 06/20/95	Southern Drainage Channels MW-118S2 38.5 - 43.5 07/14/95	Southern Drainage Channels MW-118S2 38.5 - 43.5 06/11/96	Southern Drainage Channels MW-118S2 38.5 - 43.5 05/18/00	Southern Drainage Channels MW-118S2 38.5 - 43.5 12/14/06
Gases							
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	67,900	31,060	NA
Carbon monoxide	ug/L	NA	NA	NA	400 U	400 U	NA
Dissolved Oxygen	ug/L	NA	NA	NA	800	2,420	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	300	70 U	NA
Nitrogen	ug/L	NA	NA	NA	14,700	14,100	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels MW-118S2 38.5 - 43.5 12/07/07	Southern Drainage Channels MW-118S2 38.5 - 43.5 04/01/08	Southern Drainage Channels MW-118WT 1.6 - 11.6 06/20/95	Southern Drainage Channels MW-118WT 1.6 - 11.6 07/14/95	Southern Drainage Channels MW-118WT 1.6 - 11.6 06/11/96	Southern Drainage Channels MW-118WT 1.6 - 11.6 05/17/00
Inorganics							
Aluminum	ug/L	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	NA	5.00 U	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	81,900	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	4,990	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved							
Aluminum (Dissolved)	ug/L	200 U	200 U	563	NA	100 U	100 U
Antimony (Dissolved)	ug/L	2 U	2 U	5 U	NA	5 U	5 U
Arsenic (Dissolved)	ug/L	5 U	6.4 U	1	NA	NA	10 U
Barium (Dissolved)	ug/L	407	302	1,970	NA	2,420	7,970
Beryllium (Dissolved)	ug/L	1 U	1 U	5 U	NA	NA	4 U
Cadmium (Dissolved)	ug/L	1 U	1 U	0.2 U	NA	NA	1.5
Calcium (Dissolved)	ug/L	126,000	120,000	1,950,000 J	NA	NA	4,890,000
Chromium Total (Dissolved)	ug/L	5 U	5 U	50 U	NA	NA	5 U
Cobalt (Dissolved)	ug/L	7 U	7 U	50 U	NA	NA	40 U
Copper (Dissolved)	ug/L	2 U	2.1	25 U	NA	NA	25 U
Cyanide (Dissolved)	ug/L	10 U	10 U	NA	NA	NA	5 U
Iron (Dissolved)	ug/L	453	1,440	71,500	NA	93,100	261,000
Lead (Dissolved)	ug/L	3 U	3 U	3 UJ	NA	3 U	3 U
Magnesium (Dissolved)	ug/L	50,200	46,100	372,000	NA	457,000	1,330,000
Manganese (Dissolved)	ug/L	70.5	68.4	5,460	NA	5,390	8,930
Mercury	ug/L	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels MW-118S2 38.5 - 43.5 12/07/07	Southern Drainage Channels MW-118S2 38.5 - 43.5 04/01/08	Southern Drainage Channels MW-118WT 1.6 - 11.6 06/20/95	Southern Drainage Channels MW-118WT 1.6 - 11.6 07/14/95	Southern Drainage Channels MW-118WT 1.6 - 11.6 06/11/96	Southern Drainage Channels MW-118WT 1.6 - 11.6 05/17/00
Inorganics-Dissolved (Cont'd.)							
Mercury (Dissolved)	ug/L	0.2 U	0.2	0.2 UJ	NA	NA	0.2 U
Nickel (Dissolved)	ug/L	20 U	20 U	50 U	NA	50 U	17.7 B
Potassium (Dissolved)	ug/L	5,160 J	4,210	5,000 U	NA	NA	16,800
Selenium	ug/L	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 U	5 U	5 UJ	NA	NA	5 U
Silver (Dissolved)	ug/L	0.2 U	0.2 U	0.5 U	NA	NA	5 U
Sodium (Dissolved)	ug/L	242,000	262,000	175,000	NA	229,000	647,000
Thallium (Dissolved)	ug/L	1 U	1 U	2 UJ	NA	NA	26.8
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	4 U	4 U	20 U	NA	NA	50 U
Zinc (Dissolved)	ug/L	5.9 J	6 J	R	NA	22.3 U	17.8 B
Miscellaneous							
Alkalinity, Carbonate	ug/L	NA	NA	NA	20,000 U	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	1,200	1,600	NA	10,000 J	NA	26,000
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	4,000 J	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	530,000	NA	NA
Chloride	ug/L	422,000	498,000	NA	3,700,000	NA	16,100,000
Estimated Un-ionized Ammonia	ug/L	86.4	115.2	NA	720 J	NA	1,872
Ferrous Iron	ug/L	NA	NA	NA	NA	59,000	240,000
Hardness	ug/L	NA	NA	NA	7,600,000	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	250,000
Manganese	ug/L	NA	NA	NA	NA	NA	7,900
Nitrate (as N)	ug/L	200	600	NA	NA	80 U	50,000 UG
Nitrite (as N)	ug/L	100 U	100 U	NA	NA	70 U	50,000 UG
Nitrogen	ug/L	NA	NA	NA	NA	NA	50 U
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA
pH	S.U.	7.6	7.4	NA	NA	NA	6.2
Phenolics (Total)	ug/L	NA	NA	NA	25	NA	NA
Phosphorus	ug/L	NA	NA	NA	100 U	NA	NA
Sulfate	ug/L	4,200	37,700	NA	NA	5,000 U	100,000 UG
Sulfide	ug/L	NA	NA	NA	NA	390	2,000 U
Surfactants	ug/L	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	1,100,000	1,100,000	NA	1,400,000	NA	37,000,000
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	16,900	81,000
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	220,000	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels MW-118S2 38.5 - 43.5 12/07/07	Southern Drainage Channels MW-118S2 38.5 - 43.5 04/01/08	Southern Drainage Channels MW-118WT 1.6 - 11.6 06/20/95	Southern Drainage Channels MW-118WT 1.6 - 11.6 07/14/95	Southern Drainage Channels MW-118WT 1.6 - 11.6 06/11/96	Southern Drainage Channels MW-118WT 1.6 - 11.6 05/17/00
Gases							
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	302,800	353,700
Carbon monoxide	ug/L	NA	NA	NA	NA	400 U	400 U
Dissolved Oxygen	ug/L	NA	NA	NA	NA	500 U	210
Ethane	ug/L	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	19,700	16,000
Nitrogen	ug/L	NA	NA	NA	NA	4,600	2,370

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels MW-118WT 1.6 - 11.6 06/19/01	Southern Drainage Channels MW-118WT 1.6 - 11.6 06/27/02	Southern Drainage Channels MW-118WT 1.6 - 11.6 06/19/03	Southern Drainage Channels MW-118WT 1.6 - 11.6 05/27/04	Southern Drainage Channels MW-118WT 1.6 - 11.6 06/23/05	Southern Drainage Channels MW-118WT 1.6 - 11.6 12/14/06
Inorganics							
Aluminum	ug/L	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA
Mercury	ug/L	0.200 UJ [0.200 UJ]	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved							
Aluminum (Dissolved)	ug/L	100 U [100 U]	100 U [100 U]	100 U [100 U]	100 U	200 U	200 U
Antimony (Dissolved)	ug/L	5 U [5 U]	5 U [5 U]	5 U [5 U]	5 U	0.17 B	2 U
Arsenic (Dissolved)	ug/L	5.1 B [7.4 B]	3.9 B [7.9 B]	10 U [10 U]	3.2	3.4	5 U
Barium (Dissolved)	ug/L	10,700 [11,200]	8,650 [9,200]	5,620 [5,420]	4,350	2,210 J	1,400
Beryllium (Dissolved)	ug/L	4 U [4 U]	4 U [4 U]	4 U [4 U]	4 U	1 U	1 U
Cadmium (Dissolved)	ug/L	8.3 [8.6]	2.5 [2.9]	6.6 [6]	0.72	0.5 U	1 U
Calcium (Dissolved)	ug/L	5,750,000 [6,040,000]	4,630,000 [4,880,000]	2,940,000 [2,840,000]	2,290,000 J	953,000 J	670,000
Chromium Total (Dissolved)	ug/L	5 U [5 U]	5 U [5 U]	5 U [5 U]	2.1	1.5 B	5 U
Cobalt (Dissolved)	ug/L	40 U [40 U]	40 U [40 U]	40 U [40 U]	40 U	5	1.7 J
Copper (Dissolved)	ug/L	25 U [25 U]	25 U [25 U]	25 U [25 U]	25 U	3.6 J	1.6 J
Cyanide (Dissolved)	ug/L	5 U [5 U]	5 U [5 U]	5 U [5 U]	5 U	10 U	10 U
Iron (Dissolved)	ug/L	330,000 [344,000]	259,000 [277,000]	173,000 [166,000]	135,000	92,400	39,200
Lead (Dissolved)	ug/L	3 U [3 U]	3 U [3 U]	3 U [3 U]	3 U	1 U	3 U
Magnesium (Dissolved)	ug/L	1,760,000 [1,840,000]	1,390,000 [1,470,000]	916,000 [883,000]	721,000 J	444,000	206,000
Manganese (Dissolved)	ug/L	7,740 [8,070]	6,250 [6,360]	4,110 [4,000]	3,080 J	1,560 J	1,050
Mercury	ug/L	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels MW-118WT 1.6 - 11.6 06/19/01	Southern Drainage Channels MW-118WT 1.6 - 11.6 06/27/02	Southern Drainage Channels MW-118WT 1.6 - 11.6 06/19/03	Southern Drainage Channels MW-118WT 1.6 - 11.6 05/27/04	Southern Drainage Channels MW-118WT 1.6 - 11.6 06/23/05	Southern Drainage Channels MW-118WT 1.6 - 11.6 12/14/06
Inorganics-Dissolved (Cont'd.)							
Mercury (Dissolved)	ug/L	NA	0.2 UJ [0.2 UJ]	0.2 UJ [0.2 UJ]	0.2 U	0.2 U	0.2 U
Nickel (Dissolved)	ug/L	23.5 B [24.4 B]	29 B [31.1 B]	36.2 B [34.8 B]	39	43.4	25.3
Potassium (Dissolved)	ug/L	30,700 J [32,400 J]	40,000 J [43,400 J]	37,200 [35,200]	33,900 J	29,400	19,200
Selenium	ug/L	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 U [5 U]	5 U [5 U]	5 U [5 U]	5 U	16.3	5 U
Silver (Dissolved)	ug/L	5 U [5 U]	5 U [5 U]	5 U [5 U]	5 U	0.5 U	0.2 UJ
Sodium (Dissolved)	ug/L	955,000 [976,000]	925,000 [970,000]	764,000 [735,000]	662,000	541,000	408,000
Thallium (Dissolved)	ug/L	10 U [6.5 B]	18.8 J [7.8 BJ]	10 U [10 U]	10 U	0.089 B	1 U
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	50 U [50 U]	50 U [50 U]	50 U [50 U]	1.5	5 U	4 U
Zinc (Dissolved)	ug/L	20 U [20 U]	20 U [20 U]	20 U [20 U]	20 U	67.3 J	20 U
Miscellaneous							
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	92,000 [76,000]	82,000 [88,000]	66,000 [65,000]	66,000	47,000 J	42,000
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA
Chloride	ug/L	21,800,000 [18,800,000]	16,900,000 [16,500,000]	9,740,000 [9,470,000]	7,580,000	4,670,000	2,370,000
Estimated Un-ionized Ammonia	ug/L	6,624 [5,472]	5,904 [6,336]	4,752 [4,680]	4,752	3,384 J	3,024
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	50,000 U [500 U]	2,500 U [2,500 U]	2,000 U [2,000 U]	1,000 U	100 U	100 U
Nitrite (as N)	ug/L	R [R]	2,500 U [2,500 U]	50,000 U [50,000 U]	25,000 U	2,000 U	1,900
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA
pH	S.U.	6.9 [7]	6.8 [6.3]	7.7 [7]	6.4	6.4	6.6 J
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	100,000 U [630 B]	590 B [560 B]	700 BJG [1,200 BJG]	2,000 U	5,000	25,300
Sulfide	ug/L	NA	NA	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	34,000,000 [36,000,000]	42,000,000 [41,000,000]	23,000,000 [24,000,000]	15,000,000	12,000,000 J	6,800,000
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA

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TABLE A-2
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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels MW-118WT 1.6 - 11.6 06/19/01	Southern Drainage Channels MW-118WT 1.6 - 11.6 06/27/02	Southern Drainage Channels MW-118WT 1.6 - 11.6 06/19/03	Southern Drainage Channels MW-118WT 1.6 - 11.6 05/27/04	Southern Drainage Channels MW-118WT 1.6 - 11.6 06/23/05	Southern Drainage Channels MW-118WT 1.6 - 11.6 12/14/06
Gases							
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA

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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels MW-118WT 1.6 - 11.6 12/07/07	Southern Drainage Channels MW-118WT 1.6 - 11.6 04/01/08	Southern Drainage Channels TW-216S1 05/10/95	Southern Drainage Channels TW-216S2 05/11/95	Southern Drainage Channels TW-216WT 05/10/95	Southern Drainage Channels TW-217S1 05/10/95
Inorganics							
Aluminum	ug/L	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	NA	5.00 U	5.00 U [5.00 U]	5.00 U	5.00 U
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved							
Aluminum (Dissolved)	ug/L	200 U	200 U	100 U	100 U [100 U]	100 U	100 U
Antimony (Dissolved)	ug/L	2 U	2 U	5 U	5 U [5 U]	5.3	5 U
Arsenic (Dissolved)	ug/L	5 U	5 U	3.7	9.6 [8.2]	14.5	1
Barium (Dissolved)	ug/L	1,120	1,040	200 U	522 [545]	200 U	326
Beryllium (Dissolved)	ug/L	1 U	1 U	5 U	5 U [5 U]	5 U	5 U
Cadmium (Dissolved)	ug/L	1 U	1 U	0.2 U	0.2 U [0.2 U]	0.21	0.2 U
Calcium (Dissolved)	ug/L	601,000	510,000	76,900	138,000 [144,000]	116,000	136,000
Chromium Total (Dissolved)	ug/L	5 U	5 U	50 UJ	50 UJ [50 UJ]	50 UJ	50 UJ
Cobalt (Dissolved)	ug/L	7 U	7 U	50 U	50 U [50 U]	50 U	50 U
Copper (Dissolved)	ug/L	2.2 U	0.45 J	25 U	25 U [25 U]	25 U	25 U
Cyanide (Dissolved)	ug/L	10 U	10 U	NA	NA	NA	NA
Iron (Dissolved)	ug/L	35,400	30,500	100 U	7,070 [5,120]	1,140	1,070
Lead (Dissolved)	ug/L	3 U	3 U	3.2	3 U [3 U]	3 U	3 U
Magnesium (Dissolved)	ug/L	196,000	176,000	18,900	51,100 [53,500]	30,500	43,500
Manganese (Dissolved)	ug/L	881	800	38.6	96.6 [104]	867	110
Mercury	ug/L	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels MW-118WT 1.6 - 11.6 12/07/07	Southern Drainage Channels MW-118WT 1.6 - 11.6 04/01/08	Southern Drainage Channels TW-216S1 05/10/95	Southern Drainage Channels TW-216S2 05/11/95	Southern Drainage Channels TW-216WT 05/10/95	Southern Drainage Channels TW-217S1 05/10/95
Inorganics-Dissolved (Cont'd.)							
Mercury (Dissolved)	ug/L	0.2 U	0.2 U	0.2 UJ	0.2 UJ [0.2 UJ]	0.2 UJ	0.2 UJ
Nickel (Dissolved)	ug/L	20.1	17.6 J	50 U	50 U [50 U]	50 U	50 U
Potassium (Dissolved)	ug/L	23,500 J	18,400	5,000 U	5,000 U [5,000 U]	5,000 U	5,000 U
Selenium	ug/L	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 U	5 U	5 U	5 U [5 U]	5 U	5 U
Silver (Dissolved)	ug/L	0.2 U	0.13 J	0.5 U	0.5 U [0.5 U]	0.5 U	0.5 U
Sodium (Dissolved)	ug/L	406,000	334,000	62,900	223,000 [228,000]	57,200	106,000
Thallium (Dissolved)	ug/L	1 U	0.18 J	2 UJ	2 UJ [2 UJ]	2 UJ	2 UJ
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	4 U	4 U	20 U	20 U [20 U]	20 U	20 U
Zinc (Dissolved)	ug/L	20 U	20 U	R	844 [877]	217	1,010
Miscellaneous							
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	42,000	38,000	NA	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA
Chloride	ug/L	1,760,000	1,800,000	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	3,024	2,736	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	100 U	100 U	NA	NA	NA	NA
Nitrite (as N)	ug/L	100 U	100 U	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA
pH	S.U.	6.7	6.6	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	17,600	23,500	NA	NA	NA	NA
Sulfide	ug/L	NA	NA	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	4,600,000	4,600,000	NA	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels MW-118WT 1.6 - 11.6 12/07/07	Southern Drainage Channels MW-118WT 1.6 - 11.6 04/01/08	Southern Drainage Channels TW-216S1 05/10/95	Southern Drainage Channels TW-216S2 05/11/95	Southern Drainage Channels TW-216WT 05/10/95	Southern Drainage Channels TW-217S1 05/10/95
Gases							
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels TW-217S2 05/10/95	Southern Drainage Channels TW-217WT 05/09/95	Southern Drainage Channels TW-218S1 05/09/95	Southern Drainage Channels TW-218S2 05/09/95	Southern Drainage Channels TW-218S3 05/09/95	Southern Drainage Channels TW-218WT 05/09/95
Inorganics							
Aluminum	ug/L	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved							
Aluminum (Dissolved)	ug/L	100 U	196	100 U	132	104	254
Antimony (Dissolved)	ug/L	5 U	5 U	5 U	5 U	5 U	5 U
Arsenic (Dissolved)	ug/L	7.5	5.1	9.1	4.5	2.5	11
Barium (Dissolved)	ug/L	791	200 U	338	1,200	340	200 U
Beryllium (Dissolved)	ug/L	5 U	5 U	5 U	5 U	5 U	5 U
Cadmium (Dissolved)	ug/L	0.2 UJ	0.2 U	0.2 UJ	0.2 U	0.2 UJ	0.2 UJ
Calcium (Dissolved)	ug/L	147,000	118,000	124,000	158,000	120,000	236,000
Chromium Total (Dissolved)	ug/L	50 UJ	50 UJ	50 UJ	50 UJ	50 UJ	50 UJ
Cobalt (Dissolved)	ug/L	50 U	50 U	50 U	50 U	50 U	50 U
Copper (Dissolved)	ug/L	25 U	25 U	25 U	25 U	25 U	25 U
Cyanide (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA
Iron (Dissolved)	ug/L	1,610	2,770	3,370	1,120	325	5,480
Lead (Dissolved)	ug/L	3 U	3 U	3 U	3 U	3 U	3 U
Magnesium (Dissolved)	ug/L	52,200	29,300	39,100	49,600	44,200	64,700
Manganese (Dissolved)	ug/L	74.8	940	188	180	84.2	2,180
Mercury	ug/L	NA	NA	NA	NA	NA	NA

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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels TW-217S2 05/10/95	Southern Drainage Channels TW-217WT 05/09/95	Southern Drainage Channels TW-218S1 05/09/95	Southern Drainage Channels TW-218S2 05/09/95	Southern Drainage Channels TW-218S3 05/09/95	Southern Drainage Channels TW-218WT 05/09/95
Inorganics-Dissolved (Cont'd.)							
Mercury (Dissolved)	ug/L	0.2 UJ	0.2 UJ	0.2 UJ	0.2 UJ	0.2 UJ	0.2 UJ
Nickel (Dissolved)	ug/L	50 U	50 U	50 U	50 U	50 U	50 U
Potassium (Dissolved)	ug/L	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U
Selenium	ug/L	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 U	5 U	5 U	5 U	5 U	5 U
Silver (Dissolved)	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Sodium (Dissolved)	ug/L	181,000	49,700	96,800	100,000	204,000	63,600
Thallium (Dissolved)	ug/L	2 UJ	2 UJ	2 UJ	2 UJ	2 UJ	2 UJ
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	20 U	20 U	20 U	20 U	20 U	20 U
Zinc (Dissolved)	ug/L	866	R	1,730	781	313	409
Miscellaneous							
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	NA	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	NA	NA	NA	NA	NA
Nitrite (as N)	ug/L	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	NA	NA	NA	NA	NA	NA
Sulfide	ug/L	NA	NA	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	NA	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA

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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	Southern Drainage Channels TW-217S2 05/10/95	Southern Drainage Channels TW-217WT 05/09/95	Southern Drainage Channels TW-218S1 05/09/95	Southern Drainage Channels TW-218S2 05/09/95	Southern Drainage Channels TW-218S3 05/09/95	Southern Drainage Channels TW-218WT 05/09/95
Gases							
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	UST 4 UST-MWS1 27 - 32 07/27/95	UST 4 UST-MWS1 27 - 32 06/10/96	UST 4 UST-MWS2 40.1 - 45.1 07/26/95	UST 7 BBL-MW1 4.2 - 13.7 06/01/96	UST 7 BBL-MW1 4.2 - 13.7 06/20/96	UST 7 BBL-MW1 4.2 - 13.7 07/31/98	UST 7 BBL-MW1 4.2 - 13.7 10/01/98	UST 7 BBL-MW1 4.2 - 13.7 10/27/98	UST 7 BBL-MW1 4.2 - 13.7 01/01/99	UST 7 BBL-MW1 4.2 - 13.7 01/28/99	UST 7 BBL-MW1 4.2 - 13.7 04/01/99	UST 7 BBL-MW1 4.2 - 13.7 04/12/99	UST 7 BBL-MW1 4.2 - 13.7 07/01/99	UST 7 BBL-MW1 4.2 - 13.7 07/14/99	UST 7 BBL-MW1 4.2 - 13.7 10/01/99	UST 7 BBL-MW1 4.2 - 13.7 10/22/99
Inorganics																	
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	500 U	NA	5.00 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	3.00 U	3.00 U	100 U	3.00 U	NA	1.00 U	NA	1.00 U	NA	3.00 U	3.00 U	3.00 U	3.00 U
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved																	
Aluminum (Dissolved)	ug/L	100 U	100 U	100 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony (Dissolved)	ug/L	5 U	5 U	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	1 U	5 U	7.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	200 U	200 U	200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	5 U	5 U	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	0.2 UJ	0.5 U	0.2 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium (Dissolved)	ug/L	100,000	167,000	140,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	50 U	50 U	50 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	50 U	50 U	50 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	25 U	25 U	25 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (Dissolved)	ug/L	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron (Dissolved)	ug/L	2,460	2,720 J	8,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	3 U	3 U	3 U	NA	NA	NA	NA	3 U	NA	1 U	NA	1 U	NA	NA	NA	NA
Magnesium (Dissolved)	ug/L	29,600	51,700	39,700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	262	527 J	361	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	UST 4 UST-MWS1 27 - 32 07/27/95	UST 4 UST-MWS1 27 - 32 06/10/96	UST 4 UST-MWS2 40.1 - 45.1 07/26/95	UST 7 BBL-MW1 4.2 - 13.7 06/01/96	UST 7 BBL-MW1 4.2 - 13.7 06/20/96	UST 7 BBL-MW1 4.2 - 13.7 07/31/98	UST 7 BBL-MW1 4.2 - 13.7 10/01/98	UST 7 BBL-MW1 4.2 - 13.7 10/27/98	UST 7 BBL-MW1 4.2 - 13.7 01/01/99	UST 7 BBL-MW1 4.2 - 13.7 01/28/99	UST 7 BBL-MW1 4.2 - 13.7 04/01/99	UST 7 BBL-MW1 4.2 - 13.7 04/12/99	UST 7 BBL-MW1 4.2 - 13.7 07/01/99	UST 7 BBL-MW1 4.2 - 13.7 07/14/99	UST 7 BBL-MW1 4.2 - 13.7 10/01/99	UST 7 BBL-MW1 4.2 - 13.7 10/22/99
Inorganics-Dissolved (Cont'd.)																	
Mercury (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	50 U	50 U	50 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium (Dissolved)	ug/L	5,000 U	22,200	5,000 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5 U	5 U	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	0.5 U	0.5 U	0.5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium (Dissolved)	ug/L	77,800	486,000	45,600	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	2 U	16 UJ	2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	20 U	20 U	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	20 U	20 U	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																	
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	R	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	1,700 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	NA	NA	NA	100 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	NA	NA	NA	5,000 U	5,000 U	5,000 U	2,000	2	2,000	2	3,000	3	2,000	2	1,000 U	1 U
Sulfide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	UST 4 UST-MWS1 27 - 32 07/27/95	UST 4 UST-MWS1 27 - 32 06/10/96	UST 4 UST-MWS2 40.1 - 45.1 07/26/95	UST 7 BBL-MW1 4.2 - 13.7 06/01/96	UST 7 BBL-MW1 4.2 - 13.7 06/20/96	UST 7 BBL-MW1 4.2 - 13.7 07/31/98	UST 7 BBL-MW1 4.2 - 13.7 10/01/98	UST 7 BBL-MW1 4.2 - 13.7 10/27/98	UST 7 BBL-MW1 4.2 - 13.7 01/01/99	UST 7 BBL-MW1 4.2 - 13.7 01/28/99	UST 7 BBL-MW1 4.2 - 13.7 04/01/99	UST 7 BBL-MW1 4.2 - 13.7 04/12/99	UST 7 BBL-MW1 4.2 - 13.7 07/01/99	UST 7 BBL-MW1 4.2 - 13.7 07/14/99	UST 7 BBL-MW1 4.2 - 13.7 10/01/99	UST 7 BBL-MW1 4.2 - 13.7 10/22/99
Gases																	
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	UST 7 BBL-MW1 4.2 - 13.7 01/01/00	UST 7 BBL-MW1 4.2 - 13.7 05/01/00	UST 7 BBL-MW1 4.2 - 13.7 05/18/00	UST 7 BBL-MW1 4.2 - 13.7 08/01/00	UST 7 BBL-MW1 4.2 - 13.7 08/23/00	UST 7 BBL-MW1 4.2 - 13.7 10/01/00	UST 7 BBL-MW1 4.2 - 13.7 03/01/01	UST 7 BBL-MW1 4.2 - 13.7 05/01/01	UST 7 BBL-MW1 4.2 - 13.7 08/01/01	UST 7 BBL-MW1 4.2 - 13.7 02/11/02	UST 7 BBL-MW1 4.2 - 13.7 08/02/02	UST 7 BBL-MW1 4.2 - 13.7 03/03/03	UST 7 BBL-MW1 4.2 - 13.7 08/03/03
Inorganics														
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	3.00 U [3.00 U]	10.0	10.0	3.00 U [3.00 U]	NA	3.00 U	3.00 U [3.00 U]	1.00 U	3.00 [3.00]	3.00 U	1.00 U [1.00 U]	1.00 U	0.00100 U [0.00100 U]
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved														
Aluminum (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	NA	NA	NA	NA	3 U [3 U]	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	UST 7 BBL-MW1 4.2 - 13.7 01/01/00	UST 7 BBL-MW1 4.2 - 13.7 05/01/00	UST 7 BBL-MW1 4.2 - 13.7 05/18/00	UST 7 BBL-MW1 4.2 - 13.7 08/01/00	UST 7 BBL-MW1 4.2 - 13.7 08/23/00	UST 7 BBL-MW1 4.2 - 13.7 10/01/00	UST 7 BBL-MW1 4.2 - 13.7 03/01/01	UST 7 BBL-MW1 4.2 - 13.7 05/01/01	UST 7 BBL-MW1 4.2 - 13.7 08/01/01	UST 7 BBL-MW1 4.2 - 13.7 02/11/02	UST 7 BBL-MW1 4.2 - 13.7 08/02/02	UST 7 BBL-MW1 4.2 - 13.7 03/03/03	UST 7 BBL-MW1 4.2 - 13.7 08/03/03
Inorganics-Dissolved (Cont'd.)														
Mercury (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous														
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	1,000 U [1,000 U]	25,100	25,100	6,000 [6,000]	6,000 [6,000]	1,000 U	1,000 U [1,000 U]	5,000 U	2,000 [2,000]	21,000	5,000 [4,000]	16,000	5,000 U [5,000 U]
Sulfide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

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Gases														
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	UST 7 BBL-MW1 4.2 - 13.7 02/04/04	UST 7 BBL-MW1 4.2 - 13.7 08/04/04	UST 7 BBL-MW1 4.2 - 13.7 02/05/05	UST 7 BBL-MW1 4.2 - 13.7 02/22/05	UST 7 BBL-MW1 4.2 - 13.7 08/05/05	UST 7 BBL-MW1 4.2 - 13.7 08/22/05	UST 7 BBL-MW1 4.2 - 13.7 03/13/08	UST 7 BBL-MW2 4.7 - 14.2 06/18/96	UST 7 BBL-MW2 4.7 - 14.2 05/01/00	UST 7 BBL-MW2 4.7 - 14.2 05/19/00	UST 7 BBL-MW3 5.2 - 14.7 06/18/96	UST 7 BBL-MW3 5.2 - 14.7 05/01/00	UST 7 BBL-MW3 5.2 - 14.7 05/17/00	UST 7 BBL-MW3 5.2 - 14.7 02/06/06	UST 7 BBL-MW3 5.2 - 14.7 08/06/06
Inorganics																
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	0.830 B [0.810 B]	0.930 B [1.40 BG]	1.10	NA	1.30	NA	NA	3.00 U [3.00 U]	41.6	41.6	3.00 U	3.00 U	3.00 U	1.20	1.10
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved																
Aluminum (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	NA	NA	NA	1.1	NA	1.3	5 U	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	UST 7 BBL-MW1 4.2 - 13.7 02/04/04	UST 7 BBL-MW1 4.2 - 13.7 08/04/04	UST 7 BBL-MW1 4.2 - 13.7 02/05/05	UST 7 BBL-MW1 4.2 - 13.7 02/22/05	UST 7 BBL-MW1 4.2 - 13.7 08/05/05	UST 7 BBL-MW1 4.2 - 13.7 08/22/05	UST 7 BBL-MW1 4.2 - 13.7 03/13/08	UST 7 BBL-MW2 4.7 - 14.2 06/18/96	UST 7 BBL-MW2 4.7 - 14.2 05/01/00	UST 7 BBL-MW2 4.7 - 14.2 05/19/00	UST 7 BBL-MW3 5.2 - 14.7 06/18/96	UST 7 BBL-MW3 5.2 - 14.7 05/01/00	UST 7 BBL-MW3 5.2 - 14.7 05/17/00	UST 7 BBL-MW3 5.2 - 14.7 02/06/06	UST 7 BBL-MW3 5.2 - 14.7 08/06/06
Inorganics-Dissolved (Cont'd.)																
Mercury (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	180,000 [170,000]	NA	NA	290,000	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	2,100 J [2,000 J]	NA	NA	16,600 J	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA	100 U [100 U]	NA	NA	100 U	NA	NA	NA	NA
Nitrite (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	8,000 [8,000]	5,000 U [5,000 U]	5,000 U	5,000 U	5,000 U	5,000 U	12,000	5,000 U [6,000]	62,200	62,200	5,000 U	1,000 U	1,000 U	5,000 U	5,000 U
Sulfide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	UST 7 BBL-MW1 4.2 - 13.7 02/04/04	UST 7 BBL-MW1 4.2 - 13.7 08/04/04	UST 7 BBL-MW1 4.2 - 13.7 02/05/05	UST 7 BBL-MW1 4.2 - 13.7 02/22/05	UST 7 BBL-MW1 4.2 - 13.7 08/05/05	UST 7 BBL-MW1 4.2 - 13.7 08/22/05	UST 7 BBL-MW1 4.2 - 13.7 03/13/08	UST 7 BBL-MW2 4.7 - 14.2 06/18/96	UST 7 BBL-MW2 4.7 - 14.2 05/01/00	UST 7 BBL-MW2 4.7 - 14.2 05/19/00	UST 7 BBL-MW3 5.2 - 14.7 06/18/96	UST 7 BBL-MW3 5.2 - 14.7 05/01/00	UST 7 BBL-MW3 5.2 - 14.7 05/17/00	UST 7 BBL-MW3 5.2 - 14.7 02/06/06	UST 7 BBL-MW3 5.2 - 14.7 08/06/06
Gases																
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	UST 7 BBL-MW4 5.2 - 14.7 06/01/96	UST 7 BBL-MW4 5.2 - 14.7 06/18/96	UST 7 BBL-MW4 5.2 - 14.7 07/31/98	UST 7 BBL-MW4 5.2 - 14.7 10/01/98	UST 7 BBL-MW4 5.2 - 14.7 10/27/98	UST 7 BBL-MW4 5.2 - 14.7 01/01/99	UST 7 BBL-MW4 5.2 - 14.7 01/28/99	UST 7 BBL-MW4 5.2 - 14.7 04/01/99	UST 7 BBL-MW4 5.2 - 14.7 04/12/99	UST 7 BBL-MW4 5.2 - 14.7 07/01/99	UST 7 BBL-MW4 5.2 - 14.7 07/14/99	UST 7 BBL-MW4 5.2 - 14.7 10/01/99	UST 7 BBL-MW4 5.2 - 14.7 10/22/99	UST 7 BBL-MW4 5.2 - 14.7 01/01/00	UST 7 BBL-MW4 5.2 - 14.7 05/01/00	UST 7 BBL-MW4 5.2 - 14.7 05/18/00	UST 7 BBL-MW4 5.2 - 14.7 08/01/00
Inorganics																		
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	3.00 U	3.00 U	100 U	3.00 U	NA	2.00	NA	1.00 U	NA	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	5.10	5.10	3.00 U
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved																		
Aluminum (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	NA	NA	NA	NA	3 U	NA	2	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	UST 7 BBL-MW4 5.2 - 14.7 06/01/96	UST 7 BBL-MW4 5.2 - 14.7 06/18/96	UST 7 BBL-MW4 5.2 - 14.7 07/31/98	UST 7 BBL-MW4 5.2 - 14.7 10/01/98	UST 7 BBL-MW4 5.2 - 14.7 10/27/98	UST 7 BBL-MW4 5.2 - 14.7 01/01/99	UST 7 BBL-MW4 5.2 - 14.7 01/28/99	UST 7 BBL-MW4 5.2 - 14.7 04/01/99	UST 7 BBL-MW4 5.2 - 14.7 04/12/99	UST 7 BBL-MW4 5.2 - 14.7 07/01/99	UST 7 BBL-MW4 5.2 - 14.7 07/14/99	UST 7 BBL-MW4 5.2 - 14.7 10/01/99	UST 7 BBL-MW4 5.2 - 14.7 10/22/99	UST 7 BBL-MW4 5.2 - 14.7 01/01/00	UST 7 BBL-MW4 5.2 - 14.7 05/01/00	UST 7 BBL-MW4 5.2 - 14.7 05/18/00	UST 7 BBL-MW4 5.2 - 14.7 08/01/00
Inorganics-Dissolved (Cont'd.)																		
Mercury (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																		
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	270,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	12,400 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	100 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	5,000 U	5,000 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9,600 BG	9,600 BG	NA
Sulfide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	UST 7 BBL-MW4 5.2 - 14.7 06/01/96	UST 7 BBL-MW4 5.2 - 14.7 06/18/96	UST 7 BBL-MW4 5.2 - 14.7 07/31/98	UST 7 BBL-MW4 5.2 - 14.7 10/01/98	UST 7 BBL-MW4 5.2 - 14.7 10/27/98	UST 7 BBL-MW4 5.2 - 14.7 01/01/99	UST 7 BBL-MW4 5.2 - 14.7 01/28/99	UST 7 BBL-MW4 5.2 - 14.7 04/01/99	UST 7 BBL-MW4 5.2 - 14.7 04/12/99	UST 7 BBL-MW4 5.2 - 14.7 07/01/99	UST 7 BBL-MW4 5.2 - 14.7 07/14/99	UST 7 BBL-MW4 5.2 - 14.7 10/01/99	UST 7 BBL-MW4 5.2 - 14.7 10/22/99	UST 7 BBL-MW4 5.2 - 14.7 01/01/00	UST 7 BBL-MW4 5.2 - 14.7 05/01/00	UST 7 BBL-MW4 5.2 - 14.7 05/18/00	UST 7 BBL-MW4 5.2 - 14.7 08/01/00
Gases																		
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	UST 7 BBL-MW4 5.2 - 14.7 08/23/00	UST 7 BBL-MW4 5.2 - 14.7 10/01/00	UST 7 BBL-MW4 5.2 - 14.7 03/01/01	UST 7 BBL-MW4 5.2 - 14.7 05/01/01	UST 7 BBL-MW4 5.2 - 14.7 08/01/01	UST 7 BBL-MW4 5.2 - 14.7 02/11/02	UST 7 BBL-MW4 5.2 - 14.7 08/02/02	UST 7 BBL-MW4 5.2 - 14.7 03/03/03	UST 7 BBL-MW4 5.2 - 14.7 08/03/03	UST 7 BBL-MW4 5.2 - 14.7 02/04/04	UST 7 BBL-MW4 5.2 - 14.7 08/04/04	UST 7 BBL-MW4 5.2 - 14.7 02/22/05	UST 7 BBL-MW4 5.2 - 14.7 08/05/05	UST 7 BBL-MW4 5.2 - 14.7 08/23/05	UST 7 BBL-MW4 5.2 - 14.7 02/06/06	UST 7 BBL-MW4 5.2 - 14.7 08/06/06	UST 7 BBL-MW5 5.2 - 14.7 06/19/96
Inorganics																		
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	NA	3.00 U	3.00 U	1.00 U [1.00 U]	1.00 U	3.00 U	1.00 U	1.00 U	0.00100 U	1.00 U	1.00 U	1.00 U	1.00 U	NA	1.00 U	1.00 U	3.00 U
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved																		
Aluminum (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	1 U	NA	NA	NA
Magnesium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	UST 7 BBL-MW4 5.2 - 14.7 08/23/00	UST 7 BBL-MW4 5.2 - 14.7 10/01/00	UST 7 BBL-MW4 5.2 - 14.7 03/01/01	UST 7 BBL-MW4 5.2 - 14.7 05/01/01	UST 7 BBL-MW4 5.2 - 14.7 08/01/01	UST 7 BBL-MW4 5.2 - 14.7 02/11/02	UST 7 BBL-MW4 5.2 - 14.7 08/02/02	UST 7 BBL-MW4 5.2 - 14.7 03/03/03	UST 7 BBL-MW4 5.2 - 14.7 08/03/03	UST 7 BBL-MW4 5.2 - 14.7 02/04/04	UST 7 BBL-MW4 5.2 - 14.7 08/04/04	UST 7 BBL-MW4 5.2 - 14.7 02/22/05	UST 7 BBL-MW4 5.2 - 14.7 08/05/05	UST 7 BBL-MW4 5.2 - 14.7 08/23/05	UST 7 BBL-MW4 5.2 - 14.7 02/06/06	UST 7 BBL-MW4 5.2 - 14.7 08/06/06	UST 7 BBL-MW5 5.2 - 14.7 06/19/96
Inorganics-Dissolved (Cont'd.)																		
Mercury (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																		
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	200,000
Ammonia Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	13,700 J
Hardness	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U
Nitrite (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	4,000 B	3,000 B	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U
Sulfide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	UST 7 BBL-MW4 5.2 - 14.7 08/23/00	UST 7 BBL-MW4 5.2 - 14.7 10/01/00	UST 7 BBL-MW4 5.2 - 14.7 03/01/01	UST 7 BBL-MW4 5.2 - 14.7 05/01/01	UST 7 BBL-MW4 5.2 - 14.7 08/01/01	UST 7 BBL-MW4 5.2 - 14.7 02/11/02	UST 7 BBL-MW4 5.2 - 14.7 08/02/02	UST 7 BBL-MW4 5.2 - 14.7 03/03/03	UST 7 BBL-MW4 5.2 - 14.7 08/03/03	UST 7 BBL-MW4 5.2 - 14.7 02/04/04	UST 7 BBL-MW4 5.2 - 14.7 08/04/04	UST 7 BBL-MW4 5.2 - 14.7 02/22/05	UST 7 BBL-MW4 5.2 - 14.7 08/05/05	UST 7 BBL-MW4 5.2 - 14.7 08/23/05	UST 7 BBL-MW4 5.2 - 14.7 02/06/06	UST 7 BBL-MW4 5.2 - 14.7 08/06/06	UST 7 BBL-MW5 5.2 - 14.7 06/19/96
Gases																		
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	UST 7 BBL-MW5 5.2 - 14.7 05/01/00	UST 7 BBL-MW5 5.2 - 14.7 05/19/00	UST 7 MW-135S1 23.7 - 28.7 07/21/95	UST 7 MW-135S2 32 - 37 07/21/95	UST 7 MW-135S3 42.5 - 47.5 07/21/95	UST 7 MW-135WT 5 - 15 07/21/95	UST 7 MW-135WT 5 - 15 06/18/96	UST 7 MW-135WT 5 - 15 07/31/98	UST 7 MW-135WT 5 - 15 10/01/98	UST 7 MW-135WT 5 - 15 10/27/98	UST 7 MW-135WT 5 - 15 01/01/99	UST 7 MW-135WT 5 - 15 01/28/99	UST 7 MW-135WT 5 - 15 04/01/99	UST 7 MW-135WT 5 - 15 04/12/99	UST 7 MW-135WT 5 - 15 07/01/99
Inorganics																
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	NA	5.00 U	5.00 U	5.00 U	5.00 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	3.00 U	3.00 U	NA	NA	NA	NA	3.00 U	100 U	3.00 U	NA	1.00 U	NA	1.00 U	NA	3.00 U
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved																
Aluminum (Dissolved)	ug/L	NA	NA	100 U	100 U	100 U	100 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony (Dissolved)	ug/L	NA	NA	5 U	5 U	5 U	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	NA	NA	17.1	4.6	3.5	1.9	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	NA	NA	200 U	200 U	200 U	200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	NA	NA	5 U	5 U	5 U	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	NA	NA	0.2 UJ	0.2 UJ	0.2 UJ	0.2 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium (Dissolved)	ug/L	NA	NA	123,000	61,600	56,000	38,700	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	NA	NA	50 U	50 U	50 U	50 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	NA	NA	50 U	50 U	50 U	50 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	NA	NA	25 U	25 U	25 U	25 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron (Dissolved)	ug/L	NA	NA	9,180	4,140	1,930	4,280	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	NA	NA	3 U	3 U	3 U	3 U	NA	NA	NA	3 U	NA	1 U	NA	1 U	NA
Magnesium (Dissolved)	ug/L	NA	NA	41,600	18,200	17,300	8,150	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	NA	NA	161	124	75	309	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	UST 7 BBL-MW5 5.2 - 14.7 05/01/00	UST 7 BBL-MW5 5.2 - 14.7 05/19/00	UST 7 MW-135S1 23.7 - 28.7 07/21/95	UST 7 MW-135S2 32 - 37 07/21/95	UST 7 MW-135S3 42.5 - 47.5 07/21/95	UST 7 MW-135WT 5 - 15 07/21/95	UST 7 MW-135WT 5 - 15 06/18/96	UST 7 MW-135WT 5 - 15 07/31/98	UST 7 MW-135WT 5 - 15 10/01/98	UST 7 MW-135WT 5 - 15 10/27/98	UST 7 MW-135WT 5 - 15 01/01/99	UST 7 MW-135WT 5 - 15 01/28/99	UST 7 MW-135WT 5 - 15 04/01/99	UST 7 MW-135WT 5 - 15 04/12/99	UST 7 MW-135WT 5 - 15 07/01/99
Inorganics-Dissolved (Cont'd.)																
Mercury (Dissolved)	ug/L	NA	NA	0.2 UJ	0.2 UJ	0.2 UJ	0.2 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	NA	NA	50 U	50 U	50 U	50 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium (Dissolved)	ug/L	NA	NA	5,000 U	5,000 U	5,000 U	10,800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	NA	5 U	5 U	5 U	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	NA	NA	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium (Dissolved)	ug/L	NA	NA	146,000	117,000	125,000	305,000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	NA	NA	2 UJ	2 UJ	2 UJ	2 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	NA	20 U	20 U	20 U	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	NA	NA	R	R	R	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	350,000	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	7,600	NA	NA	NA	NA	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	NA	NA	NA	NA	NA	100 U	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	1,000 U	1,000 U	NA	NA	NA	NA	24,000	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	UST 7 BBL-MW5 5.2 - 14.7 05/01/00	UST 7 BBL-MW5 5.2 - 14.7 05/19/00	UST 7 MW-135S1 23.7 - 28.7 07/21/95	UST 7 MW-135S2 32 - 37 07/21/95	UST 7 MW-135S3 42.5 - 47.5 07/21/95	UST 7 MW-135WT 5 - 15 07/21/95	UST 7 MW-135WT 5 - 15 06/18/96	UST 7 MW-135WT 5 - 15 07/31/98	UST 7 MW-135WT 5 - 15 10/01/98	UST 7 MW-135WT 5 - 15 10/27/98	UST 7 MW-135WT 5 - 15 01/01/99	UST 7 MW-135WT 5 - 15 01/28/99	UST 7 MW-135WT 5 - 15 04/01/99	UST 7 MW-135WT 5 - 15 04/12/99	UST 7 MW-135WT 5 - 15 07/01/99
Gases																
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	UST 7 MW-135WT 5 - 15 07/14/99	UST 7 MW-135WT 5 - 15 10/01/99	UST 7 MW-135WT 5 - 15 10/22/99	UST 7 MW-135WT 5 - 15 01/01/00	UST 7 MW-135WT 5 - 15 05/01/00	UST 7 MW-135WT 5 - 15 05/18/00	UST 7 MW-135WT 5 - 15 08/01/00	UST 7 MW-135WT 5 - 15 08/23/00	UST 7 MW-135WT 5 - 15 10/01/00	UST 7 MW-135WT 5 - 15 03/01/01	UST 7 MW-135WT 5 - 15 05/01/01	UST 7 MW-135WT 5 - 15 08/01/01	UST 7 MW-135WT 5 - 15 02/11/02	UST 7 MW-135WT 5 - 15 08/02/02
Inorganics															
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	NA	3.00 U	3.00 U	1.00 U	1.00 U [1.00 U]	3.00 U	1.00 U
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved															
Aluminum (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	3 U	NA	NA	NA	NA	NA	NA
Magnesium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	UST 7 MW-135WT 5 - 15 07/14/99	UST 7 MW-135WT 5 - 15 10/01/99	UST 7 MW-135WT 5 - 15 10/22/99	UST 7 MW-135WT 5 - 15 01/01/00	UST 7 MW-135WT 5 - 15 05/01/00	UST 7 MW-135WT 5 - 15 05/18/00	UST 7 MW-135WT 5 - 15 08/01/00	UST 7 MW-135WT 5 - 15 08/23/00	UST 7 MW-135WT 5 - 15 10/01/00	UST 7 MW-135WT 5 - 15 03/01/01	UST 7 MW-135WT 5 - 15 05/01/01	UST 7 MW-135WT 5 - 15 08/01/01	UST 7 MW-135WT 5 - 15 02/11/02	UST 7 MW-135WT 5 - 15 08/02/02
Inorganics-Dissolved (Cont'd.)															
Mercury (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous															
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	NA	NA	NA	NA	146,000	146,000	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	UST 7 MW-135WT 5 - 15 07/14/99	UST 7 MW-135WT 5 - 15 10/01/99	UST 7 MW-135WT 5 - 15 10/22/99	UST 7 MW-135WT 5 - 15 01/01/00	UST 7 MW-135WT 5 - 15 05/01/00	UST 7 MW-135WT 5 - 15 05/18/00	UST 7 MW-135WT 5 - 15 08/01/00	UST 7 MW-135WT 5 - 15 08/23/00	UST 7 MW-135WT 5 - 15 10/01/00	UST 7 MW-135WT 5 - 15 03/01/01	UST 7 MW-135WT 5 - 15 05/01/01	UST 7 MW-135WT 5 - 15 08/01/01	UST 7 MW-135WT 5 - 15 02/11/02	UST 7 MW-135WT 5 - 15 08/02/02
Gases															
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	UST 7 MW-135WT 5 - 15 03/03/03	UST 7 MW-135WT 5 - 15 08/03/03	UST 7 MW-135WT 5 - 15 02/04/04	UST 7 MW-135WT 5 - 15 08/04/04	UST 7 MW-135WT 5 - 15 02/21/05	UST 7 MW-135WT 5 - 15 02/22/05	UST 7 MW-135WT 5 - 15 08/05/05	UST 7 MW-135WT 5 - 15 08/23/05	UST 7 MW-135WT 5 - 15 02/06/06	UST 7 MW-135WT 5 - 15 08/06/06	UST 7 UST7-1 5 - 10 06/19/96	UST 7 UST7-1 5 - 10 05/01/00	UST 7 UST7-1 5 - 10 05/18/00	UST 7 UST7-2 5.3 - 10.3 06/01/94	UST 7 UST7-2 5.3 - 10.3 06/08/94
Inorganics																
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	1.00 U	0.00100 U	1.00 U	1.00 U	1.00 U	NA	1.00 U	NA	1.00 U [1.00 U]	1.00 U [1.00 U]	6.40	27.7	27.7	NA	1.10
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved																
Aluminum (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	NA	NA	NA	NA	NA	1 U	NA	1 U	NA	NA	NA	NA	NA	1	NA
Magnesium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	UST 7 MW-135WT 5 - 15 03/03/03	UST 7 MW-135WT 5 - 15 08/03/03	UST 7 MW-135WT 5 - 15 02/04/04	UST 7 MW-135WT 5 - 15 08/04/04	UST 7 MW-135WT 5 - 15 02/21/05	UST 7 MW-135WT 5 - 15 02/22/05	UST 7 MW-135WT 5 - 15 08/05/05	UST 7 MW-135WT 5 - 15 08/23/05	UST 7 MW-135WT 5 - 15 02/06/06	UST 7 MW-135WT 5 - 15 08/06/06	UST 7 UST7-1 5 - 10 06/19/96	UST 7 UST7-1 5 - 10 05/01/00	UST 7 UST7-1 5 - 10 05/18/00	UST 7 UST7-2 5.3 - 10.3 06/01/94	UST 7 UST7-2 5.3 - 10.3 06/08/94
Inorganics-Dissolved (Cont'd.)																
Mercury (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	220,000	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	26,500 J	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	NA	NA	NA
Nitrite (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	NA	NA	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U [5,000 U]	5,000 U [5,000 U]	5,000 U	663,000	663,000	NA	NA
Sulfide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	UST 7 MW-135WT 5 - 15 03/03/03	UST 7 MW-135WT 5 - 15 08/03/03	UST 7 MW-135WT 5 - 15 02/04/04	UST 7 MW-135WT 5 - 15 08/04/04	UST 7 MW-135WT 5 - 15 02/21/05	UST 7 MW-135WT 5 - 15 02/22/05	UST 7 MW-135WT 5 - 15 08/05/05	UST 7 MW-135WT 5 - 15 08/23/05	UST 7 MW-135WT 5 - 15 02/06/06	UST 7 MW-135WT 5 - 15 08/06/06	UST 7 UST7-1 5 - 10 06/19/96	UST 7 UST7-1 5 - 10 05/01/00	UST 7 UST7-1 5 - 10 05/18/00	UST 7 UST7-2 5.3 - 10.3 06/01/94	UST 7 UST7-2 5.3 - 10.3 06/08/94
Gases																
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	UST 7 UST7-2 5.3 - 10.3 06/01/96	UST 7 UST7-2 5.3 - 10.3 06/19/96	UST 7 UST7-2 5.3 - 10.3 07/31/98	UST 7 UST7-2 5.3 - 10.3 10/01/98	UST 7 UST7-2 5.3 - 10.3 10/27/98	UST 7 UST7-2 5.3 - 10.3 01/01/99	UST 7 UST7-2 5.3 - 10.3 01/28/99	UST 7 UST7-2 5.3 - 10.3 04/01/99	UST 7 UST7-2 5.3 - 10.3 04/12/99	UST 7 UST7-2 5.3 - 10.3 07/01/99	UST 7 UST7-2 5.3 - 10.3 07/14/99	UST 7 UST7-2 5.3 - 10.3 10/01/99	UST 7 UST7-2 5.3 - 10.3 10/22/99	UST 7 UST7-2 5.3 - 10.3 01/01/00	UST 7 UST7-2 5.3 - 10.3 05/01/00	UST 7 UST7-2 5.3 - 10.3 05/17/00	UST 7 UST7-2 5.3 - 10.3 08/01/00
Inorganics																		
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	114	114	100 U	3.00 U	NA	1.00 U	NA	1.00 U	NA	3.00 U	3.00 U	3.00 U [3.00 U]	3.00 U [3.00 U]	3.00 U [3.00 U]	35.0	35.0	3.00 U
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved																		
Aluminum (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	43,000	NA
Lead (Dissolved)	ug/L	NA	NA	NA	NA	3 U	NA	1 U	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	350	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	UST 7 UST7-2 5.3 - 10.3 06/01/96	UST 7 UST7-2 5.3 - 10.3 06/19/96	UST 7 UST7-2 5.3 - 10.3 07/31/98	UST 7 UST7-2 5.3 - 10.3 10/01/98	UST 7 UST7-2 5.3 - 10.3 10/27/98	UST 7 UST7-2 5.3 - 10.3 01/01/99	UST 7 UST7-2 5.3 - 10.3 01/28/99	UST 7 UST7-2 5.3 - 10.3 04/01/99	UST 7 UST7-2 5.3 - 10.3 04/12/99	UST 7 UST7-2 5.3 - 10.3 07/01/99	UST 7 UST7-2 5.3 - 10.3 07/14/99	UST 7 UST7-2 5.3 - 10.3 10/01/99	UST 7 UST7-2 5.3 - 10.3 10/22/99	UST 7 UST7-2 5.3 - 10.3 01/01/00	UST 7 UST7-2 5.3 - 10.3 05/01/00	UST 7 UST7-2 5.3 - 10.3 05/17/00	UST 7 UST7-2 5.3 - 10.3 08/01/00
Inorganics-Dissolved (Cont'd.)																		
Mercury (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																		
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	320,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	47,500 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	35,000	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	44,000	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	380	NA
Nitrate (as N)	ug/L	NA	100 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	200	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	5,000 U	5,000 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2,000 UG	2,000 UG	NA
Sulfide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2,000 U	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	25,000	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	UST 7 UST7-2 5.3 - 10.3 06/01/96	UST 7 UST7-2 5.3 - 10.3 06/19/96	UST 7 UST7-2 5.3 - 10.3 07/31/98	UST 7 UST7-2 5.3 - 10.3 10/01/98	UST 7 UST7-2 5.3 - 10.3 10/27/98	UST 7 UST7-2 5.3 - 10.3 01/01/99	UST 7 UST7-2 5.3 - 10.3 01/28/99	UST 7 UST7-2 5.3 - 10.3 04/01/99	UST 7 UST7-2 5.3 - 10.3 04/12/99	UST 7 UST7-2 5.3 - 10.3 07/01/99	UST 7 UST7-2 5.3 - 10.3 07/14/99	UST 7 UST7-2 5.3 - 10.3 10/01/99	UST 7 UST7-2 5.3 - 10.3 10/22/99	UST 7 UST7-2 5.3 - 10.3 01/01/00	UST 7 UST7-2 5.3 - 10.3 05/01/00	UST 7 UST7-2 5.3 - 10.3 05/17/00	UST 7 UST7-2 5.3 - 10.3 08/01/00
Gases																		
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	180,100	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	400 U	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	220	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9,740	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4,200	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	UST 7 UST7-2 5.3 - 10.3 08/23/00	UST 7 UST7-2 5.3 - 10.3 10/01/00	UST 7 UST7-2 5.3 - 10.3 03/01/01	UST 7 UST7-2 5.3 - 10.3 05/01/01	UST 7 UST7-2 5.3 - 10.3 08/01/01	UST 7 UST7-2 5.3 - 10.3 02/11/02	UST 7 UST7-2 5.3 - 10.3 08/02/02	UST 7 UST7-2 5.3 - 10.3 03/03/03	UST 7 UST7-2 5.3 - 10.3 08/03/03	UST 7 UST7-2 5.3 - 10.3 02/04/04	UST 7 UST7-2 5.3 - 10.3 08/04/04	UST 7 UST7-2 5.3 - 10.3 02/21/05	UST 7 UST7-2 5.3 - 10.3 02/22/05	UST 7 UST7-2 5.3 - 10.3 08/05/05	UST 7 UST7-2 5.3 - 10.3 08/23/05	UST 7 UST7-2 5.3 - 10.3 02/06/06
Inorganics																	
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	NA	3.00 U	3.00 U [3.00 U]	1.00 U	1.00 U	3.00 U	1.00 U [1.00 U]	1.00 U	0.00100 U [0.00100 U]	12.5	4.60	5.80	NA	6.60	NA	5.60
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved																	
Aluminum (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.8	NA	6.6	NA
Magnesium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	UST 7 UST7-2 5.3 - 10.3 08/23/00	UST 7 UST7-2 5.3 - 10.3 10/01/00	UST 7 UST7-2 5.3 - 10.3 03/01/01	UST 7 UST7-2 5.3 - 10.3 05/01/01	UST 7 UST7-2 5.3 - 10.3 08/01/01	UST 7 UST7-2 5.3 - 10.3 02/11/02	UST 7 UST7-2 5.3 - 10.3 08/02/02	UST 7 UST7-2 5.3 - 10.3 03/03/03	UST 7 UST7-2 5.3 - 10.3 08/03/03	UST 7 UST7-2 5.3 - 10.3 02/04/04	UST 7 UST7-2 5.3 - 10.3 08/04/04	UST 7 UST7-2 5.3 - 10.3 02/21/05	UST 7 UST7-2 5.3 - 10.3 02/22/05	UST 7 UST7-2 5.3 - 10.3 08/05/05	UST 7 UST7-2 5.3 - 10.3 08/23/05	UST 7 UST7-2 5.3 - 10.3 02/06/06
Inorganics-Dissolved (Cont'd.)																	
Mercury (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																	
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U
Sulfide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	UST 7 UST7-2 5.3 - 10.3 08/23/00	UST 7 UST7-2 5.3 - 10.3 10/01/00	UST 7 UST7-2 5.3 - 10.3 03/01/01	UST 7 UST7-2 5.3 - 10.3 05/01/01	UST 7 UST7-2 5.3 - 10.3 08/01/01	UST 7 UST7-2 5.3 - 10.3 02/11/02	UST 7 UST7-2 5.3 - 10.3 08/02/02	UST 7 UST7-2 5.3 - 10.3 03/03/03	UST 7 UST7-2 5.3 - 10.3 08/03/03	UST 7 UST7-2 5.3 - 10.3 02/04/04	UST 7 UST7-2 5.3 - 10.3 08/04/04	UST 7 UST7-2 5.3 - 10.3 02/21/05	UST 7 UST7-2 5.3 - 10.3 02/22/05	UST 7 UST7-2 5.3 - 10.3 08/05/05	UST 7 UST7-2 5.3 - 10.3 08/23/05	UST 7 UST7-2 5.3 - 10.3 02/06/06
Gases																	
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID:		UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7
Sample Depth (feet):		UST7-2	UST7-2	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R	UST7-3R
Date Collected:	Units	5.3 - 10.3 08/06/06	5.3 - 10.3 03/13/08	3.3 - 13.3 07/31/98	3.3 - 13.3 10/01/98	3.3 - 13.3 10/27/98	3.3 - 13.3 01/01/99	3.3 - 13.3 01/28/99	3.3 - 13.3 04/01/99	3.3 - 13.3 04/12/99	3.3 - 13.3 07/01/99	3.3 - 13.3 07/14/99	3.3 - 13.3 10/01/99	3.3 - 13.3 10/22/99	3.3 - 13.3 01/01/00	3.3 - 13.3 05/01/00	3.3 - 13.3 05/19/00	3.3 - 13.3 08/01/00	3.3 - 13.3 08/23/00
Inorganics																			
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	4.60	NA	100 U	3.00 U	NA	1.00 U	NA	1.00 U	NA	3.00 U	3.00 U	3.00 U	3.00 U	4.00 U	3.00 U	3.00 U	3.00 U	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved																			
Aluminum (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	NA	3.7	NA	NA	3 U	NA	1 U	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	3 U
Magnesium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	UST 7 UST7-2 5.3 - 10.3 08/06/06	UST 7 UST7-2 5.3 - 10.3 03/13/08	UST 7 UST7-3R 3.3 - 13.3 07/31/98	UST 7 UST7-3R 3.3 - 13.3 10/01/98	UST 7 UST7-3R 3.3 - 13.3 10/27/98	UST 7 UST7-3R 3.3 - 13.3 01/01/99	UST 7 UST7-3R 3.3 - 13.3 01/28/99	UST 7 UST7-3R 3.3 - 13.3 04/01/99	UST 7 UST7-3R 3.3 - 13.3 04/12/99	UST 7 UST7-3R 3.3 - 13.3 07/01/99	UST 7 UST7-3R 3.3 - 13.3 07/14/99	UST 7 UST7-3R 3.3 - 13.3 10/01/99	UST 7 UST7-3R 3.3 - 13.3 10/22/99	UST 7 UST7-3R 3.3 - 13.3 01/01/00	UST 7 UST7-3R 3.3 - 13.3 05/01/00	UST 7 UST7-3R 3.3 - 13.3 05/19/00	UST 7 UST7-3R 3.3 - 13.3 08/01/00	UST 7 UST7-3R 3.3 - 13.3 08/23/00
Inorganics-Dissolved (Cont'd.)																			
Mercury (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																			
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	5,000 U	3,000 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	27,600	27,600	NA	NA
Sulfide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID:	Units	UST 7 UST7-2	UST 7 UST7-2	UST 7 UST7-3R	UST 7 UST7-3R	UST 7 UST7-3R	UST 7 UST7-3R	UST 7 UST7-3R	UST 7 UST7-3R	UST 7 UST7-3R	UST 7 UST7-3R	UST 7 UST7-3R	UST 7 UST7-3R	UST 7 UST7-3R	UST 7 UST7-3R	UST 7 UST7-3R	UST 7 UST7-3R	UST 7 UST7-3R	UST 7 UST7-3R
Sample Depth (feet):		5.3 - 10.3	5.3 - 10.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3	3.3 - 13.3
Date Collected:		08/06/06	03/13/08	07/31/98	10/01/98	10/27/98	01/01/99	01/28/99	04/01/99	04/12/99	07/01/99	07/14/99	10/01/99	10/22/99	01/01/00	05/01/00	05/19/00	08/01/00	08/23/00
Gases																			
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	UST 7 UST7-3R 3.3 - 13.3 10/01/00	UST 7 UST7-3R 3.3 - 13.3 03/01/01	UST 7 UST7-3R 3.3 - 13.3 05/01/01	UST 7 UST7-3R 3.3 - 13.3 08/01/01	UST 7 UST7-3R 3.3 - 13.3 02/11/02	UST 7 UST7-3R 3.3 - 13.3 08/02/02	UST 7 UST7-3R 3.3 - 13.3 03/03/03	UST 7 UST7-3R 3.3 - 13.3 08/03/03	UST 7 UST7-3R 3.3 - 13.3 02/04/04	UST 7 UST7-3R 3.3 - 13.3 08/04/04	UST 7 UST7-3R 3.3 - 13.3 02/21/05	UST 7 UST7-3R 3.3 - 13.3 02/22/05	UST 7 UST7-3R 3.3 - 13.3 08/05/05	UST 7 UST7-3R 3.3 - 13.3 08/23/05	UST 7 UST7-3R 3.3 - 13.3 02/06/06	UST 7 UST7-3R 3.3 - 13.3 08/06/06	UST 7 UST7-3R 3.3 - 13.3 03/13/08
Inorganics																		
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	3.00 U	3.00 U	1.00 U	1.00 U	3.00 U	1.00 U	1.00 U	0.00100 U	1.00 U	1.00 U	1.00 U [1.00 U]	NA	1.00 U	NA	1.00 U	1.00 U	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved																		
Aluminum (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U [1 U]	NA	1 U	NA	NA	1 U
Magnesium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	UST 7 UST7-3R 3.3 - 13.3 10/01/00	UST 7 UST7-3R 3.3 - 13.3 03/01/01	UST 7 UST7-3R 3.3 - 13.3 05/01/01	UST 7 UST7-3R 3.3 - 13.3 08/01/01	UST 7 UST7-3R 3.3 - 13.3 02/11/02	UST 7 UST7-3R 3.3 - 13.3 08/02/02	UST 7 UST7-3R 3.3 - 13.3 03/03/03	UST 7 UST7-3R 3.3 - 13.3 08/03/03	UST 7 UST7-3R 3.3 - 13.3 02/04/04	UST 7 UST7-3R 3.3 - 13.3 08/04/04	UST 7 UST7-3R 3.3 - 13.3 02/21/05	UST 7 UST7-3R 3.3 - 13.3 02/22/05	UST 7 UST7-3R 3.3 - 13.3 08/05/05	UST 7 UST7-3R 3.3 - 13.3 08/23/05	UST 7 UST7-3R 3.3 - 13.3 02/06/06	UST 7 UST7-3R 3.3 - 13.3 08/06/06	UST 7 UST7-3R 3.3 - 13.3 03/13/08
Inorganics-Dissolved (Cont'd.)																		
Mercury (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																		
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5,000 U	3,000 B	5,000 U [5,000 U]	5,000 U [5,000 U]	5,000 U	5,000 U	6,000	5,000 U	15,000 J
Sulfide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	UST 7 UST7-3R 3.3 - 13.3 10/01/00	UST 7 UST7-3R 3.3 - 13.3 03/01/01	UST 7 UST7-3R 3.3 - 13.3 05/01/01	UST 7 UST7-3R 3.3 - 13.3 08/01/01	UST 7 UST7-3R 3.3 - 13.3 02/11/02	UST 7 UST7-3R 3.3 - 13.3 08/02/02	UST 7 UST7-3R 3.3 - 13.3 03/03/03	UST 7 UST7-3R 3.3 - 13.3 08/03/03	UST 7 UST7-3R 3.3 - 13.3 02/04/04	UST 7 UST7-3R 3.3 - 13.3 08/04/04	UST 7 UST7-3R 3.3 - 13.3 02/21/05	UST 7 UST7-3R 3.3 - 13.3 02/22/05	UST 7 UST7-3R 3.3 - 13.3 08/05/05	UST 7 UST7-3R 3.3 - 13.3 08/23/05	UST 7 UST7-3R 3.3 - 13.3 02/06/06	UST 7 UST7-3R 3.3 - 13.3 08/06/06	UST 7 UST7-3R 3.3 - 13.3 03/13/08
Gases																		
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	UST 7 UST7-4 7 - 12 06/01/94	UST 7 UST7-4 7 - 12 06/08/94	UST 7 UST7-4 7 - 12 06/01/96	UST 7 UST7-4 7 - 12 06/19/96	UST 7 UST7-4 7 - 12 07/31/98	UST 7 UST7-4 7 - 12 10/01/98	UST 7 UST7-4 7 - 12 10/27/98	UST 7 UST7-4 7 - 12 01/01/99	UST 7 UST7-4 7 - 12 01/28/99	UST 7 UST7-4 7 - 12 04/01/99	UST 7 UST7-4 7 - 12 04/12/99	UST 7 UST7-4 7 - 12 07/01/99	UST 7 UST7-4 7 - 12 07/14/99	UST 7 UST7-4 7 - 12 10/01/99	UST 7 UST7-4 7 - 12 10/22/99	UST 7 UST7-4 7 - 12 01/01/00	UST 7 UST7-4 7 - 12 05/01/00	UST 7 UST7-4 7 - 12 05/18/00	UST 7 UST7-4 7 - 12 08/01/00
Inorganics																				
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	NA	1.00 U	3.00 U	3.00 U	100 U	3.00 U	NA	1.00 U	NA	1.00 U	NA	3.00 U	3.00 U	3.00 U	3.00 U	17.0	9.40	9.40	3.00 U [3.00 U]
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved																				
Aluminum (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	1 U	NA	NA	NA	NA	NA	3 U	NA	1 U	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	UST 7 UST7-4 7 - 12 06/01/94	UST 7 UST7-4 7 - 12 06/08/94	UST 7 UST7-4 7 - 12 06/01/96	UST 7 UST7-4 7 - 12 06/19/96	UST 7 UST7-4 7 - 12 07/31/98	UST 7 UST7-4 7 - 12 10/01/98	UST 7 UST7-4 7 - 12 10/27/98	UST 7 UST7-4 7 - 12 01/01/99	UST 7 UST7-4 7 - 12 01/28/99	UST 7 UST7-4 7 - 12 04/01/99	UST 7 UST7-4 7 - 12 04/12/99	UST 7 UST7-4 7 - 12 07/01/99	UST 7 UST7-4 7 - 12 07/14/99	UST 7 UST7-4 7 - 12 10/01/99	UST 7 UST7-4 7 - 12 10/22/99	UST 7 UST7-4 7 - 12 01/01/00	UST 7 UST7-4 7 - 12 05/01/00	UST 7 UST7-4 7 - 12 05/18/00	UST 7 UST7-4 7 - 12 08/01/00
Inorganics-Dissolved (Cont'd.)																				
Mercury (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																				
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	240,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	8,300 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	NA	NA	100 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	NA	NA	6,000	6,000	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	30,500	30,500	NA
Sulfide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	UST 7 UST7-4 7 - 12 06/01/94	UST 7 UST7-4 7 - 12 06/08/94	UST 7 UST7-4 7 - 12 06/01/96	UST 7 UST7-4 7 - 12 06/19/96	UST 7 UST7-4 7 - 12 07/31/98	UST 7 UST7-4 7 - 12 10/01/98	UST 7 UST7-4 7 - 12 10/27/98	UST 7 UST7-4 7 - 12 01/01/99	UST 7 UST7-4 7 - 12 01/28/99	UST 7 UST7-4 7 - 12 04/01/99	UST 7 UST7-4 7 - 12 04/12/99	UST 7 UST7-4 7 - 12 07/01/99	UST 7 UST7-4 7 - 12 07/14/99	UST 7 UST7-4 7 - 12 10/01/99	UST 7 UST7-4 7 - 12 10/22/99	UST 7 UST7-4 7 - 12 01/01/00	UST 7 UST7-4 7 - 12 05/01/00	UST 7 UST7-4 7 - 12 05/18/00	UST 7 UST7-4 7 - 12 08/01/00
Gases																				
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	UST 7 UST7-4 7 - 12 08/23/00	UST 7 UST7-4 7 - 12 10/01/00	UST 7 UST7-4 7 - 12 03/01/01	UST 7 UST7-4 7 - 12 05/01/01	UST 7 UST7-4 7 - 12 08/01/01	UST 7 UST7-4 7 - 12 02/11/02	UST 7 UST7-4 7 - 12 08/02/02	UST 7 UST7-4 7 - 12 03/03/03	UST 7 UST7-4 7 - 12 08/03/03	UST 7 UST7-4 7 - 12 02/04/04	UST 7 UST7-4 7 - 12 08/04/04	UST 7 UST7-4 7 - 12 02/21/05	UST 7 UST7-4 7 - 12 02/22/05	UST 7 UST7-4 7 - 12 08/05/05	UST 7 UST7-4 7 - 12 08/22/05	UST 7 UST7-4 7 - 12 02/06/06	UST 7 UST7-4 7 - 12 08/06/06	UST 7 UST7-4 7 - 12 03/13/08
Inorganics																			
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	NA	3.00 U	3.00 U	1.00 U	1.00 U	3.00 U [3.00 U]	1.00 U	1.00 U [1.00 U]	0.00100 U	1.00 U	1.00 U	1.00 U	NA	1.00 U	NA	1.00 U	1.00 U	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved																			
Aluminum (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	3 U [3 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	1 U	NA	NA	1.2
Magnesium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
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Sample ID: / Sample Depth (feet): / Date Collected:	Units	UST 7 UST7-4 7 - 12 08/23/00	UST 7 UST7-4 7 - 12 10/01/00	UST 7 UST7-4 7 - 12 03/01/01	UST 7 UST7-4 7 - 12 05/01/01	UST 7 UST7-4 7 - 12 08/01/01	UST 7 UST7-4 7 - 12 02/11/02	UST 7 UST7-4 7 - 12 08/02/02	UST 7 UST7-4 7 - 12 03/03/03	UST 7 UST7-4 7 - 12 08/03/03	UST 7 UST7-4 7 - 12 02/04/04	UST 7 UST7-4 7 - 12 08/04/04	UST 7 UST7-4 7 - 12 02/21/05	UST 7 UST7-4 7 - 12 02/22/05	UST 7 UST7-4 7 - 12 08/05/05	UST 7 UST7-4 7 - 12 08/22/05	UST 7 UST7-4 7 - 12 02/06/06	UST 7 UST7-4 7 - 12 08/06/06	UST 7 UST7-4 7 - 12 03/13/08
Inorganics-Dissolved (Cont'd.)																			
Mercury (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																			
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	23,000	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	6,000	5,000 U	11,000
Sulfide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: / Sample Depth (feet): / Date Collected:	Units	UST 7 UST7-4 7 - 12 08/23/00	UST 7 UST7-4 7 - 12 10/01/00	UST 7 UST7-4 7 - 12 03/01/01	UST 7 UST7-4 7 - 12 05/01/01	UST 7 UST7-4 7 - 12 08/01/01	UST 7 UST7-4 7 - 12 02/11/02	UST 7 UST7-4 7 - 12 08/02/02	UST 7 UST7-4 7 - 12 03/03/03	UST 7 UST7-4 7 - 12 08/03/03	UST 7 UST7-4 7 - 12 02/04/04	UST 7 UST7-4 7 - 12 08/04/04	UST 7 UST7-4 7 - 12 02/21/05	UST 7 UST7-4 7 - 12 02/22/05	UST 7 UST7-4 7 - 12 08/05/05	UST 7 UST7-4 7 - 12 08/22/05	UST 7 UST7-4 7 - 12 02/06/06	UST 7 UST7-4 7 - 12 08/06/06	UST 7 UST7-4 7 - 12 03/13/08
Gases																			
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	UST 7 UST7-5 7 - 12 06/01/94	UST 7 UST7-5 7 - 12 06/08/94	UST 7 UST7-5 7 - 12 06/01/96	UST 7 UST7-5 7 - 12 06/19/96	UST 7 UST7-5 7 - 12 07/31/98	UST 7 UST7-5 7 - 12 10/01/98	UST 7 UST7-5 7 - 12 10/27/98	UST 7 UST7-5 7 - 12 01/01/99	UST 7 UST7-5 7 - 12 01/28/99	UST 7 UST7-5 7 - 12 04/01/99	UST 7 UST7-5 7 - 12 04/12/99	UST 7 UST7-5 7 - 12 07/01/99	UST 7 UST7-5 7 - 12 07/14/99	UST 7 UST7-5 7 - 12 10/01/99	UST 7 UST7-5 7 - 12 10/22/99	UST 7 UST7-5 7 - 12 01/01/00	UST 7 UST7-5 7 - 12 05/01/00	UST 7 UST7-5 7 - 12 05/17/00
Inorganics																			
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	NA	1.00	46.4	46.4	100 U	3.00 U	NA	10.0	NA	5.00	NA	4.00	4.00	5.00	5.00	3.00 U	20.3 [12.9]	20.3 [12.9]
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved																			
Aluminum (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8,100 [8,900]
Lead (Dissolved)	ug/L	1	NA	NA	NA	NA	NA	3 U	NA	10	NA	5	NA	NA	NA	NA	NA	NA	NA
Magnesium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	690 [760]
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	UST 7 UST7-5 7 - 12 06/01/94	UST 7 UST7-5 7 - 12 06/08/94	UST 7 UST7-5 7 - 12 06/01/96	UST 7 UST7-5 7 - 12 06/19/96	UST 7 UST7-5 7 - 12 07/31/98	UST 7 UST7-5 7 - 12 10/01/98	UST 7 UST7-5 7 - 12 10/27/98	UST 7 UST7-5 7 - 12 01/01/99	UST 7 UST7-5 7 - 12 01/28/99	UST 7 UST7-5 7 - 12 04/01/99	UST 7 UST7-5 7 - 12 04/12/99	UST 7 UST7-5 7 - 12 07/01/99	UST 7 UST7-5 7 - 12 07/14/99	UST 7 UST7-5 7 - 12 10/01/99	UST 7 UST7-5 7 - 12 10/22/99	UST 7 UST7-5 7 - 12 01/01/00	UST 7 UST7-5 7 - 12 05/01/00	UST 7 UST7-5 7 - 12 05/17/00
Inorganics-Dissolved (Cont'd.)																			
Mercury (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																			
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	210,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	24,300 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	22,000 [49,000]
Hardness	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	29,000 [10,000]
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1,100 [800]
Nitrate (as N)	ug/L	NA	NA	NA	100 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	50 U [50 U]
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	NA	NA	8,000	8,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	52,600 [54,200]	52,600 [54,200]
Sulfide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2,000 U [2,000 U]
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	26,000 [28,000]
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	UST 7 UST7-5 7 - 12 06/01/94	UST 7 UST7-5 7 - 12 06/08/94	UST 7 UST7-5 7 - 12 06/01/96	UST 7 UST7-5 7 - 12 06/19/96	UST 7 UST7-5 7 - 12 07/31/98	UST 7 UST7-5 7 - 12 10/01/98	UST 7 UST7-5 7 - 12 10/27/98	UST 7 UST7-5 7 - 12 01/01/99	UST 7 UST7-5 7 - 12 01/28/99	UST 7 UST7-5 7 - 12 04/01/99	UST 7 UST7-5 7 - 12 04/12/99	UST 7 UST7-5 7 - 12 07/01/99	UST 7 UST7-5 7 - 12 07/14/99	UST 7 UST7-5 7 - 12 10/01/99	UST 7 UST7-5 7 - 12 10/22/99	UST 7 UST7-5 7 - 12 01/01/00	UST 7 UST7-5 7 - 12 05/01/00	UST 7 UST7-5 7 - 12 05/17/00
Gases																			
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	12,570 [13,840]
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	400 U [400 U]
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	710 [670]
Ethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2,370 [2,550]
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	14,640 [15,630]

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INORGANIC COMPOUNDS

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	UST 7 UST7-5 7 - 12 08/01/00	UST 7 UST7-5 7 - 12 08/23/00	UST 7 UST7-5 7 - 12 10/01/00	UST 7 UST7-5 7 - 12 03/01/01	UST 7 UST7-5 7 - 12 05/01/01	UST 7 UST7-5 7 - 12 08/01/01	UST 7 UST7-5 7 - 12 02/11/02	UST 7 UST7-5 7 - 12 08/02/02	UST 7 UST7-5 7 - 12 03/03/03	UST 7 UST7-5 7 - 12 08/03/03	UST 7 UST7-5 7 - 12 02/04/04	UST 7 UST7-5 7 - 12 08/04/04	UST 7 UST7-5 7 - 12 02/21/05	UST 7 UST7-5 7 - 12 08/05/05	UST 7 UST7-5 7 - 12 08/22/05	UST 7 UST7-5 7 - 12 02/06/06	UST 7 UST7-5 7 - 12 08/06/06	UST 7 UST7-5 7 - 12 03/13/08
Inorganics																			
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	3.00 U	NA	3.00 U [3.00 U]	6.00	1.00	2.00	14.0	3.00	2.00	0.00100	2.10	1.80	1.80	1.00 U	NA	1.00 U	1.00 U	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved																			
Aluminum (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	NA	3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.8	NA	1 U	NA	NA	5 U [5 U]
Magnesium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	UST 7 UST7-5 7 - 12 08/01/00	UST 7 UST7-5 7 - 12 08/23/00	UST 7 UST7-5 7 - 12 10/01/00	UST 7 UST7-5 7 - 12 03/01/01	UST 7 UST7-5 7 - 12 05/01/01	UST 7 UST7-5 7 - 12 08/01/01	UST 7 UST7-5 7 - 12 02/11/02	UST 7 UST7-5 7 - 12 08/02/02	UST 7 UST7-5 7 - 12 03/03/03	UST 7 UST7-5 7 - 12 08/03/03	UST 7 UST7-5 7 - 12 02/04/04	UST 7 UST7-5 7 - 12 08/04/04	UST 7 UST7-5 7 - 12 02/21/05	UST 7 UST7-5 7 - 12 08/05/05	UST 7 UST7-5 7 - 12 08/22/05	UST 7 UST7-5 7 - 12 02/06/06	UST 7 UST7-5 7 - 12 08/06/06	UST 7 UST7-5 7 - 12 03/13/08
Inorganics-Dissolved (Cont'd.)																			
Mercury (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																			
Alkalinity, Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total (As CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium Carbonate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimated Un-ionized Ammonia	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hardness	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ignitability	DEG F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite (as N)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics (Total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phosphorus	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	210,000	5,000 U	99,000	5,000 U	5,000 U	39,000	5,000 U	120,000 [120,000]
Sulfide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Surfactants	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	UST 7 UST7-5 7 - 12 08/01/00	UST 7 UST7-5 7 - 12 08/23/00	UST 7 UST7-5 7 - 12 10/01/00	UST 7 UST7-5 7 - 12 03/01/01	UST 7 UST7-5 7 - 12 05/01/01	UST 7 UST7-5 7 - 12 08/01/01	UST 7 UST7-5 7 - 12 02/11/02	UST 7 UST7-5 7 - 12 08/02/02	UST 7 UST7-5 7 - 12 03/03/03	UST 7 UST7-5 7 - 12 08/03/03	UST 7 UST7-5 7 - 12 02/04/04	UST 7 UST7-5 7 - 12 08/04/04	UST 7 UST7-5 7 - 12 02/21/05	UST 7 UST7-5 7 - 12 08/05/05	UST 7 UST7-5 7 - 12 08/22/05	UST 7 UST7-5 7 - 12 02/06/06	UST 7 UST7-5 7 - 12 08/06/06	UST 7 UST7-5 7 - 12 03/13/08
Gases																			
Carbon Dioxide by Headspace	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon monoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	UST 7 UST7-6 7 - 12 06/19/96
Inorganics		
Aluminum	ug/L	NA
Antimony	ug/L	NA
Arsenic	ug/L	NA
Barium	ug/L	NA
Beryllium	ug/L	NA
Cadmium	ug/L	NA
Calcium	ug/L	NA
Chromium Total	ug/L	NA
Cobalt	ug/L	NA
Copper	ug/L	NA
Cyanide (total)	ug/L	NA
Ferrous Iron	ug/L	NA
Iron	ug/L	NA
Lead	ug/L	3.00 U
Magnesium	ug/L	NA
Manganese	ug/L	NA
Mercury	ug/L	NA
Molybdenum	ug/L	NA
Nickel	ug/L	NA
Potassium	ug/L	NA
Selenium	ug/L	NA
Silver	ug/L	NA
Sodium	ug/L	NA
Thallium	ug/L	NA
Tin	ug/L	NA
Vanadium	ug/L	NA
Zinc	ug/L	NA
Inorganics-Dissolved		
Aluminum (Dissolved)	ug/L	NA
Antimony (Dissolved)	ug/L	NA
Arsenic (Dissolved)	ug/L	NA
Barium (Dissolved)	ug/L	NA
Beryllium (Dissolved)	ug/L	NA
Cadmium (Dissolved)	ug/L	NA
Calcium (Dissolved)	ug/L	NA
Chromium Total (Dissolved)	ug/L	NA
Cobalt (Dissolved)	ug/L	NA
Copper (Dissolved)	ug/L	NA
Cyanide (Dissolved)	ug/L	NA
Iron (Dissolved)	ug/L	NA
Lead (Dissolved)	ug/L	NA
Magnesium (Dissolved)	ug/L	NA
Manganese (Dissolved)	ug/L	NA
Mercury	ug/L	NA

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INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	UST 7 UST7-6 7 - 12 06/19/96
Inorganics-Dissolved (Cont'd.)		
Mercury (Dissolved)	ug/L	NA
Nickel (Dissolved)	ug/L	NA
Potassium (Dissolved)	ug/L	NA
Selenium	ug/L	NA
Selenium (Dissolved)	ug/L	NA
Silver (Dissolved)	ug/L	NA
Sodium (Dissolved)	ug/L	NA
Thallium (Dissolved)	ug/L	NA
Tin (Dissolved)	ug/L	NA
Vanadium (Dissolved)	ug/L	NA
Zinc (Dissolved)	ug/L	NA
Miscellaneous		
Alkalinity, Carbonate	ug/L	NA
Alkalinity, Total (As CaCO3)	ug/L	180,000
Ammonia Nitrogen	ug/L	NA
Biochemical Oxygen Demand (BOD)	ug/L	NA
Bromide	ug/L	NA
Calcium Carbonate	ug/L	NA
Chemical Oxygen Demand (COD)	ug/L	NA
Chloride	ug/L	NA
Estimated Un-ionized Ammonia	ug/L	NA
Ferrous Iron	ug/L	9,800 J
Hardness	ug/L	NA
Ignitability	DEG F	NA
Iron	ug/L	NA
Manganese	ug/L	NA
Nitrate (as N)	ug/L	100 U
Nitrite (as N)	ug/L	NA
Nitrogen	ug/L	NA
Oil and Grease	ug/L	NA
pH	S.U.	NA
Phenolics (Total)	ug/L	NA
Phosphorus	ug/L	NA
Sulfate	ug/L	5,000 U
Sulfide	ug/L	NA
Surfactants	ug/L	NA
Total Dissolved Solids (TDS)	ug/L	NA
Total Kjeldahl Nitrogen (TKN)	ug/L	NA
Total Organic Carbon (TOC)	ug/L	NA
Total Suspended Solids (TSS)	ug/L	NA

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SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
INORGANIC COMPOUNDS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sample ID: Sample Depth (feet): Date Collected:	Units	UST 7 UST7-6 7 - 12 06/19/96
Gases		
Carbon Dioxide by Headspace	ug/L	NA
Carbon monoxide	ug/L	NA
Dissolved Oxygen	ug/L	NA
Ethane	ug/L	NA
Ethene	ug/L	NA
Methane	ug/L	NA
Nitrogen	ug/L	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID: Sample Depth (ft bgs): Date Collected:	Units	Soil Saturation Concentration Screening Levels (CSAT)	Groundwater Contact Protection (GCCP)	Groundwater Surface Water Interface Protection (GSIP)	Industrial Direct Contact (IDC)	Industrial Drinking Water Protection (IDWP)	Industrial Particulate Soil Inhalation Criteria (IPSIC)	Industrial Soil Volatilization to Indoor Air Inhalation (ISVIA)	Finite VSIC for 2 Meter Source Thickness (IVSIC2)	Finite VSIC for 5 Meter Source Thickness (IVSIC5)	Infinite Source Volatile Soil Inhalation Criteria (IVSICI)	Residential Drinking Water Protection (RDWP)	BBL-MW1 4 - 6 05/02/96
Volatile Organics													
1,1,1,2-Tetrachloroethane	mg/kg	440	440 {C}	0 {ID(X)}	440 {C}	6.4	530,000	33	330	210	120	1.5	NA
1,1,1-Trichloroethane	mg/kg	460	460 {C}	4	460 {C}	4	29,000,000	460	31,000	15,000	4,500	4	0.013 U
1,1,2,2-Tetrachloroethane	mg/kg	870	94	1.6 {X}	240	0.7	68,000	23	34	34	34	0.17	0.013 U
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	550	550 {C}	1.7	550 {C}	550 {C}	2,300,000,000	550 {C}	2,100,000	890,000	210,000	550 {C}	NA
1,1,2-Trichloroethane	mg/kg	920	420	6.6 {X}	840	0.1	250,000	24	120	57	57	0.1	0.013 U
1,1-Dichloroethane	mg/kg	890	890 {C}	15	890 {C}	50	15,000,000	430	14,000	6,000	2,500	18	0.013 U
1,1-Dichloroethene	mg/kg	570 {I}	220 {I}	1.3 {I,X}	570 {I,C}	0.14 {I}	78,000 {I}	0.33 {I}	37 {I}	15 {I}	3.7 {I}	0.14 {I}	0.013 U
1,2,3-Trichloropropane	mg/kg	830	830 {C}	{NA}	830 {C}	2.4	{ID}	{ID}	{ID}	{ID}	{ID}	0.84	NA
1,2,4-Trichlorobenzene	mg/kg	1,100	1,100	1.8	1,100 {C,DD}	4.2	11,000,000	1,100 {C}	34,000	34,000	34,000	4.2	NA
1,2,4-Trimethylbenzene	mg/kg	110 {I}	110 {I,C}	0.57 {I}	110 {I,C}	2.1 {I}	36,000,000 {I}	110 {I,C}	600,000 {I}	600,000 {I}	25,000 {I}	2.1 {I}	0.023
1,2-Dibromo-3-chloropropane	mg/kg	1.2	1.2 {C}	{NA}	1.2 {C}	0.01 {M}	5,900	1.2 {C}	15	15	15	0.01 {M}	NA
1,2-Dibromoethane	mg/kg	890	0.5	0.02 {M}	0.43	0.02 {M}	18,000	3.6	9.8	5.8	5.8	0.02 {M}	NA
1,2-Dichlorobenzene	mg/kg	210	210 {C}	0.36	210 {C}	14	44,000,000	210 {C}	55,000	46,000	46,000	14	NA
1,2-Dichloroethane	mg/kg	1,200 {I}	380 {I}	7.2 {I,X}	420 {I}	0.1 {I}	150,000 {I}	11 {I}	74 {I}	33 {I}	21 {I}	0.1 {I}	0.013 U
1,2-Dichloroethene (total)	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA
1,2-Dichloropropane	mg/kg	550 {I}	320 {I}	5.8 {I,X}	550 {I,C}	0.1 {I}	120,000 {I}	7.4 {I}	120 {I}	51 {I}	30 {I}	0.1 {I}	0.013 U
1,3-Dichlorobenzene	mg/kg	170	51	1.1	170 {C}	0.48	{ID}	{ID}	{ID}	{ID}	{ID}	0.17	NA
1,4-Dichlorobenzene	mg/kg	{NA}	140	0.29	1,900	1.7	570,000	100	340	260	260	1.7	NA
1,4-Dioxane	mg/kg	97,000 {I}	34,000 {I}	56 {I}	2,400 {I}	7 {I}	710,000 {I}	{NLV}	{NLV}	{NLV}	{NLV}	1.7 {I}	NA
2-Butanone	mg/kg	27,000 {I}	27,000 {I,C}	44 {I}	27,000 {I,C,DD}	760 {I}	29,000,000 {I}	27,000 {C}	36,000 {I}	35,000 {I}	35,000 {I}	260 {I}	0.13 U
2-Chloro-1,3-butadiene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA
2-Hexanone	mg/kg	2,500	2,500 {C}	{NA}	2,500 {C}	58	1,200,000	1,800	1,500	1,300	1,300	20	0.13 U
3-Chloropropene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA
4-Methyl-2-pentanone	mg/kg	2,700 {I}	2,700 {I,C}	{ID}	2,700 {I,C}	100 {I}	60,000,000 {I}	2,700 {I,C}	70,000 {I}	53,000 {I}	53,000 {I}	36 {I}	0.13 U
Acetone	mg/kg	110,000 {I}	110,000 {I,C}	34 {I}	73,000 {I}	42 {I}	170,000,000 {I}	110,000 {I,C}	200,000 {I}	160,000 {I}	160,000 {I}	15 {I}	0.13 U
Acetonitrile	mg/kg	22,000	22,000 {C}	{NA}	14,000	8	1,800,000	8,800	2,200	1,900	1,900	2.8	NA
Acrolein	mg/kg	23,000 {I}	23,000 {I,C}	{NA}	12,000 {I}	6.6 {I}	590 {I}	0.76 {I}	0.63 {I}	0.37 {I}	0.37 {I}	2.4 {I}	NA
Acrylonitrile	mg/kg	8,300 {I}	280 {I}	0.1 {I,M,X}	74 {I}	0.22 {I}	58,000 {I}	35 {I}	31 {I}	17 {I}	17 {I}	0.1 {I,M}	NA
Benzene	mg/kg	400 {I}	220 {I}	4 {I,X}	400 {I,C}	0.1 {I}	470,000 {I}	8.4 {I}	230 {I}	99 {I}	45 {I}	0.1 {I}	0.013 U
Bromodichloromethane	mg/kg	1,500	280	{ID}	490	1.6 {W}	110,000	6.4	57	31	31	1.6 {W}	0.013 U
Bromoform	mg/kg	870	870 {C}	{ID}	870 {C}	1.6 {W}	3,600,000	770	3,100	3,100	3,100	1.6 {W}	0.013 U
Bromomethane	mg/kg	2,200	1,400	0.7	1,000	0.58	150,000	1.6	140	57	13	0.2	0.013 U
Carbon Disulfide	mg/kg	280 {I,R}	280 {I,R,C}	{ID}	280 {I,R,C,DD}	46 {I,R}	21,000,000 {I,R}	140 {I,R}	19,000 {I,R}	8,000 {I,R}	1,600 {I,R}	16 {I,R}	0.013 U
Carbon Tetrachloride	mg/kg	390	92	0.9 {X}	390 {C}	0.1	170,000	0.99	79	34	12	0.1	0.013 U
Chlorobenzene	mg/kg	260 {I}	260 {I,C}	0.94 {I}	260 {I,C}	2 {I}	2,100,000 {I}	220 {I}	2,100 {I}	1,100 {I}	920 {I}	2 {I}	0.013 U
Chloroethane	mg/kg	950	950 {C}	{ID}	950 {C}	34	290,000,000	950 {C}	280,000	120,000	36,000	8.6	0.013 U
Chloroform	mg/kg	1,500	1,500 {C}	3.4 {X}	1,500 {C}	1.6 {W}	1,600,000	38	790	340	150	1.6 {W}	0.013 U
Chloromethane	mg/kg	1,100 {I}	1,100 {I,C}	{ID}	1,100 {I,C}	22 {I}	2,600,000 {I}	10 {I}	2,500 {I}	1,000 {I}	120 {I}	5.2 {I}	0.013 U
cis-1,2-Dichloroethene	mg/kg	640	640 {C}	12	640 {C}	1.4	1,000,000	41	1,000	430	210	1.4	0.013 U
cis-1,3-Dichloropropene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.013 U
Cyclohexane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA
Dibromochloromethane	mg/kg	610	360	{ID}	500	1.6 {W}	160,000	21	98	80	80	1.6 {W}	0.013 U
Dibromomethane	mg/kg	2,000	2,000 {C}	{NA}	2,000 {C}	4.6	{ID}	{ID}	{ID}	{ID}	{ID}	1.6	NA
Dichlorodifluoromethane	mg/kg	1,000	1,000 {C}	{ID}	1,000 {C}	270	1,500,000,000	1,700	1,400,000	550,000	63,000	95	NA
Ethyl Methacrylate	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID: Sample Depth (ft bgs): Date Collected:	Units	Soil Saturation Concentration Screening Levels (CSAT)	Groundwater Contact Protection (GCCP)	Groundwater Surface Water Interface Protection (GSIP)	Industrial Direct Contact (IDC)	Industrial Drinking Water Protection (IDWP)	Industrial Particulate Soil Inhalation Criteria (IPSIC)	Industrial Soil Volatilization to Indoor Air Inhalation (ISVIA)	Finite VSIC for 2 Meter Source Thickness (IVSIC2)	Finite VSIC for 5 Meter Source Thickness (IVSIC5)	Infinite Source Volatile Soil Inhalation Criteria (IVSICI)	Residential Drinking Water Protection (RDWP)	BBL-MW1 4 - 6 05/02/96
Volatile Organics													
Ethylbenzene	mg/kg	140 {I}	140 {I,C}	0.36 {I}	140 {I,C}	1.5 {I}	13,000,000 {I}	140 {I,C}	6,500 {I}	3,100 {I}	2,400 {I}	1.5 {I}	0.013 U
Iodomethane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA
Isobutanol	mg/kg	8,900 {I}	8,900 {I,C}	{NA}	8,900 {I,C}	130 {I}	44,000,000 {I}	8,900 {I,C}	95,000 {I}	95,000 {I}	95,000 {I}	46 {I}	NA
Isopropylbenzene	mg/kg	390	390 {C}	{ID}	390 {C}	260	2,600,000	390 {C}	3,000	2,000	2,000	91	NA
Methacrylonitrile	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA
Methyl acetate	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA
Methyl cyclohexane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA
Methyl Methacrylate	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA
Methyl tert-butyl ether	mg/kg	5,900	5,900 {C}	15 {X}	5,900 {C}	0.8	88,000,000	5,900 {C}	89,000	41,000	30,000	0.8	0.053 U
Methylene Chloride	mg/kg	2,300	2,300 {C}	19 {X}	2,300 {C}	0.1	8,300,000	240	4,000	1,700	700	0.1	0.013 U
Propionitrile	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA
Styrene	mg/kg	520	270	2.2	520 {C}	2.7	6,900,000	520 {C}	4,200	3,300	3,300	2.7	0.013 U
Tetrachloroethene	mg/kg	88	88 {C}	0.9 {X}	88 {C}	0.1	6,800,000	60	3,300	1,400	600	0.1	0.013 U
Toluene	mg/kg	250 {I}	250 {I,C}	2.8 {I}	250 {I,C}	16 {I}	12,000,000 {I}	250 {I,C}	36,000 {I}	36,000 {I}	3,300 {I}	16 {I}	0.013 U
trans-1,2-Dichloroethene	mg/kg	1,400	1,400 {C}	30	1,400 {C}	2	2,100,000	43	2,000	840	330	2	0.013 U
trans-1,3-Dichloropropene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.013 U
trans-1,4-Dichloro-2-butene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA
Trichloroethene	mg/kg	500	440	4 {X}	500 {C,DD}	0.1	2,300,000	37	1,100	440	260	0.1	0.013 U
Trichlorofluoromethane	mg/kg	560	560 {C}	{NA}	560 {C}	150	1,700,000,000	560 {C}	140,000,000	140,000,000	110,000	52	NA
Vinyl Acetate	mg/kg	2,400 {I}	2,400 {I,C}	{NA}	2,400 {I,C,DD}	36 {I}	5,900,000 {I}	1,500 {I}	5,900 {I}	2,700 {I}	2,000 {I}	13 {I}	NA
Vinyl Chloride	mg/kg	490	20	0.3	34	0.04	890,000	2.8	420	170	29	0.04	0.013 U
Total 1,3-Dichloropropenes	mg/kg	620	110	{NA}	240	0.7	590,000	5.4	470	200	60	0.17	0.013 U
Total Xylenes	mg/kg	150 {I}	150 {I,C}	0.7 {I}	150 {I,C}	5.6 {I}	130,000,000 {I}	150 {I,C}	130,000 {I}	65,000 {I}	54,000 {I}	5.6 {I}	0.0078 J

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:	Units	BBL-MW2	BBL-MW3	BBL-MW4	BBL-MW5	BBL-SB1	BBL-SB1	BBL-SB2	BBL-SB2	BBL-SB3	BBL-SB3	BBL-SB4	BBL-SB4	BBL-SB5	BBL-SB5	BH7	BH7	BH8
Sample Depth (ft bgs):		4 - 6	6 - 8	4 - 6	4 - 6	4 - 6	8 - 10	0 - 2	8 - 10	6 - 8	8 - 10	0 - 2	8 - 10	0 - 2	20 - 22	0 - 2	2 - 4	0 - 2
Date Collected:		05/02/96	05/02/96	05/03/96	05/03/96	05/06/96	05/06/96	05/07/96	05/07/96	05/07/96	05/07/96	05/07/96	05/07/96	05/06/96	05/06/96	03/06/07	03/06/07	03/06/07
Volatile Organics																		
1,1,1,2-Tetrachloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	mg/kg	0.0058 U	1.0 U	0.0055 UJ	0.0056 U	0.0057 U	3.5 U	0.0054 U	0.0057 U	0.0059 U	3.7 U	3.4 U	1.6 U	0.0060 U	0.0061 U	0.045 U	0.051 U	0.046 U
1,1,2,2-Tetrachloroethane	mg/kg	0.0058 U	1.0 U	0.0055 UJ	0.0056 U	0.0057 U	3.5 U	0.0054 U	0.0057 U	0.0059 U	3.7 U	3.4 U	1.6 U	0.0060 U	0.0061 U	0.045 U	0.051 U	0.046 U
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	0.25 U	0.23 U
1,1,2-Trichloroethane	mg/kg	0.0058 U	1.0 U	0.0055 UJ	0.0056 U	0.0057 U	3.5 U	0.0054 U	0.0057 U	0.0059 U	3.7 U	3.4 U	1.6 U	0.0060 U	0.0061 U	0.045 U	0.051 U	0.046 U
1,1-Dichloroethane	mg/kg	0.0058 U	1.0 U	0.0055 UJ	0.0056 U	0.0057 U	3.5 U	0.0054 U	0.0057 U	0.0059 U	3.7 U	3.4 U	1.6 U	0.0060 U	0.0061 U	0.045 U	0.051 U	0.046 U
1,1-Dichloroethene	mg/kg	0.0058 U	1.0 U	0.0055 UJ	0.0056 U	0.0057 U	3.5 U	0.0054 U	0.0057 U	0.0059 U	3.7 U	3.4 U	1.6 U	0.0060 U	0.0061 U	0.045 U	0.051 U	0.046 U
1,2,3-Trichloropropane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 UJ	0.25 UJ	0.23 UJ
1,2,4-Trimethylbenzene	mg/kg	R	38 J	R	R	R	62	R	0.0055 J	0.11	84 J	R	R	R	R	NA	NA	NA
1,2-Dibromo-3-chloropropane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 UJ	0.25 UJ	0.23 UJ
1,2-Dibromoethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	0.25 U	0.23 U
1,2-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.090 U	0.10 U	0.092 U
1,2-Dichloroethane	mg/kg	0.0058 U	1.0 U	0.0055 UJ	0.0056 U	0.0057 U	3.5 U	0.0054 U	0.0057 U	0.0059 U	3.7 U	3.4 U	1.6 U	0.0060 U	0.0061 U	0.045 U	0.051 U	0.046 U
1,2-Dichloroethene (total)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	mg/kg	0.0058 U	1.0 U	0.0055 UJ	0.0056 U	0.0057 U	3.5 U	0.0054 U	0.0057 U	0.0059 U	3.7 U	3.4 U	1.6 U	0.0060 U	0.0061 U	0.045 U	0.051 U	0.046 U
1,3-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.090 U	0.10 U	0.092 U
1,4-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.090 U	0.10 U	0.092 U
1,4-Dioxane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	mg/kg	0.058 U	10 U	0.0034 J	0.0038 J	0.0036 J	35 U	0.013 J	0.057 U	0.059 U	37 U	34 U	16 U	0.060 U	0.061 U	0.68 U	0.76 U	0.69 U
2-Chloro-1,3-butadiene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	mg/kg	0.058 U	10 U	0.055 UJ	0.056 U	0.057 U	35 U	0.054 U	0.057 U	0.059 U	37 U	34 U	16 U	0.060 U	0.061 U	2.3 U	2.5 U	2.3 U
3-Chloropropene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	mg/kg	0.058 U	10 U	0.055 UJ	0.056 U	0.057 U	35 U	0.054 U	0.057 U	0.059 U	37 U	34 U	16 U	0.060 U	0.061 U	2.3 U	2.5 U	2.3 U
Acetone	mg/kg	0.058 U	10 U	0.0041 J	0.039 J	0.040 J	35 U	0.043 J	0.033 J	0.0083 J	5.0 J	34 U	16 U	0.060 U	0.011 J	0.73	0.81	0.80
Acetonitrile	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	mg/kg	0.0030 J	7.3 J	0.0055 UJ	0.0056 U	0.0057 U	3.5 U	0.0025 J	0.010	0.043	21 J	2.7 J	3.0	0.0060 U	0.0061 U	0.045 U	0.051 U	0.046 U
Bromodichloromethane	mg/kg	0.0058 U	1.0 U	0.0055 UJ	0.0056 U	0.0057 U	3.5 U	0.0054 U	0.0057 U	0.0059 U	3.7 U	3.4 U	1.6 U	0.0060 U	0.0061 U	0.090 U	0.10 U	0.092 U
Bromoform	mg/kg	0.0058 U	1.0 U	0.0055 UJ	0.0056 U	0.0057 U	3.5 U	0.0054 U	0.0057 U	0.0059 U	3.7 U	3.4 U	1.6 U	0.0060 U	0.0061 U	0.090 U	0.10 U	0.092 U
Bromomethane	mg/kg	0.0058 U	1.0 U	0.0055 UJ	0.0056 U	0.0057 U	3.5 U	0.0054 U	0.0057 U	0.0059 U	3.7 U	3.4 U	1.6 U	0.0060 U	0.0061 U	0.18 U	0.20 U	0.18 U
Carbon Disulfide	mg/kg	0.0058 U	1.0 U	0.0055 UJ	0.0056 U	0.0057 U	3.5 U	0.0054 U	0.0047 J	0.0047 J	3.7 U	3.4 U	1.6 U	0.0060 U	0.0061 U	0.23 U	0.25 U	0.23 U
Carbon Tetrachloride	mg/kg	0.0058 U	1.0 U	0.0055 UJ	0.0056 U	0.0057 U	3.5 U	0.0054 U	0.0057 U	0.0059 U	3.7 U	3.4 U	1.6 U	0.0060 U	0.0061 U	0.045 U	0.051 U	0.046 U
Chlorobenzene	mg/kg	0.0058 U	1.0 U	0.0055 UJ	0.0056 U	0.0057 U	3.5 U	0.0054 U	0.0057 U	0.0059 U	3.7 U	3.4 U	1.6 U	0.0060 U	0.0061 U	0.045 U	0.051 U	0.046 U
Chloroethane	mg/kg	0.0058 U	1.0 U	0.0055 UJ	0.0056 U	0.0057 U	3.5 U	0.0054 U	0.0057 U	0.0059 U	3.7 U	3.4 U	1.6 U	0.0060 U	0.0061 U	0.23 U	0.25 U	0.23 U
Chloroform	mg/kg	0.0058 U	1.0 U	0.0055 UJ	0.0056 U	0.0057 U	3.5 U	0.0054 U	0.0057 U	0.0059 U	3.7 U	3.4 U	1.6 U	0.0060 U	0.0061 U	0.045 U	0.051 U	0.046 U
Chloromethane	mg/kg	0.0058 U	1.0 U	0.0055 UJ	0.0056 U	0.0057 U	3.5 U	0.0054 U	0.0057 U	0.0059 U	2.5 J	3.4 U	1.6 U	0.0060 U	0.0061 U	0.23 U	0.25 U	0.23 U
cis-1,2-Dichloroethene	mg/kg	0.0058 U	1.0 U	0.0055 UJ	0.0056 U	0.0057 U	3.5 U	0.0054 U	0.0057 U	0.0059 U	3.7 U	3.4 U	1.6 U	0.0060 U	0.0061 U	0.045 U	0.051 U	0.046 U
cis-1,3-Dichloropropene	mg/kg	0.0058 U	1.0 U	0.0055 UJ	0.0056 U	0.0057 U	3.5 U	0.0054 U	0.0057 U	0.0059 U	3.7 U	3.4 U	1.6 U	0.0060 U	0.0061 U	0.045 U	0.051 U	0.046 U
Cyclohexane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.051 J	0.062 J	0.063 J
Dibromochloromethane	mg/kg	0.0058 U	1.0 U	0.0055 UJ	0.0056 U	0.0057 U	3.5 U	0.0054 U	0.0057 U	0.0059 U	3.7 U	3.4 U	1.6 U	0.0060 U	0.0061 U	0.045 U	0.051 U	0.046 U
Dibromomethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.090 U	0.10 U	0.092 U
Ethyl Methacrylate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		BBL-MW2	BBL-MW3	BBL-MW4	BBL-MW5	BBL-SB1	BBL-SB1	BBL-SB2	BBL-SB2	BBL-SB3	BBL-SB3	BBL-SB4	BBL-SB4	BBL-SB5	BBL-SB5	BH7	BH7	BH8
Sample Depth (ft bgs):		4 - 6	6 - 8	4 - 6	4 - 6	4 - 6	8 - 10	0 - 2	8 - 10	6 - 8	8 - 10	0 - 2	8 - 10	0 - 2	20 - 22	0 - 2	2 - 4	0 - 2
Date Collected:	Units	05/02/96	05/02/96	05/03/96	05/03/96	05/06/96	05/06/96	05/07/96	05/07/96	05/07/96	05/07/96	05/07/96	05/07/96	05/06/96	05/06/96	03/06/07	03/06/07	03/06/07
Volatile Organics																		
Ethylbenzene	mg/kg	0.0036 J	14 J	0.0055 UJ	0.0056 U	0.0057 U	5.4	0.0054 U	0.0028 J	0.015	29 J	28	23	0.0060 U	0.0061 U	0.045 U	0.051 U	0.011 J
Iodomethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isobutanol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	0.25 U	0.23 U
Methacrylonitrile	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.1 U	1.2 U	1.1 U
Methyl cyclohexane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.082 J	0.10 J	0.14 J
Methyl Methacrylate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	mg/kg	0.023 U	4.2 U	0.022 UJ	0.022 U	0.0057 U	14 U	0.022 U	0.022 U	0.024 U	15 U	13 U	6.4 U	0.024 U	0.024 U	0.23 U	0.25 U	0.23 U
Methylene Chloride	mg/kg	0.0072 J	1.0 U	0.0043 J	0.0056 U	0.0057 U	3.5 U	0.0054 U	0.0057 U	0.0059 U	3.7 U	3.4 U	1.6 U	0.0060 U	0.0061 U	0.23 U	0.25 U	0.23 U
Propionitrile	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	mg/kg	0.0058 U	1.0 U	0.0055 UJ	0.0056 U	0.0057 U	3.5 U	0.0054 U	0.0057 U	0.0059 U	3.7 U	3.4 U	1.6 U	0.0060 U	0.0061 U	0.045 U	0.051 U	0.046 U
Tetrachloroethene	mg/kg	0.0058 U	1.0 U	0.0055 UJ	0.0056 U	0.0057 U	3.5 U	0.0054 U	0.0057 U	0.0059 U	3.7 U	3.4 U	1.6 U	0.0060 U	0.0061 U	0.045 U	0.051 U	0.046 U
Toluene	mg/kg	0.0091 J	6.4 J	0.012 J	0.0056 U	0.030	3.5 U	0.095	0.031	0.0055 J	2.9 J	3.8	4.3	0.0060 U	0.0024 J	0.016 J	0.025 J	0.043 J
trans-1,2-Dichloroethene	mg/kg	0.0058 U	1.0 U	0.0055 UJ	0.0056 U	0.0057 U	3.5 U	0.0054 U	0.0057 U	0.0059 U	3.7 U	3.4 U	1.6 U	0.0060 U	0.0061 U	0.045 U	0.051 U	0.046 U
trans-1,3-Dichloropropene	mg/kg	0.0058 U	1.0 U	0.0055 UJ	0.0056 U	0.0057 U	3.5 U	0.0054 U	0.0057 U	0.0059 U	3.7 U	3.4 U	1.6 U	0.0060 U	0.0061 U	0.045 U	0.051 U	0.046 U
trans-1,4-Dichloro-2-butene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	mg/kg	0.0058 U	1.0 U	0.0055 UJ	0.0056 U	0.0057 U	3.5 U	0.0054 U	0.0057 U	0.0059 U	3.7 U	3.4 U	1.6 U	0.0060 U	0.0061 U	0.045 U	0.051 U	0.046 U
Trichlorofluoromethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.090 U	0.10 U	0.092 U
Vinyl Acetate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	mg/kg	0.0058 U	1.0 U	0.0055 UJ	0.0056 U	0.0057 U	3.5 U	0.0054 U	0.0057 U	0.0059 U	3.7 U	3.4 U	1.6 U	0.0060 U	0.0061 U	0.036 U	0.040 U	0.037 U
Total 1,3-Dichloropropenes	mg/kg	0.0058 U	1.0 U	0.0055 U	0.0056 U	0.0057 U	3.5 U	0.0054 U	0.0057 U	0.0059 U	3.7 U	3.4 U	1.6 U	0.0060 U	0.0061 U	0.045 U	0.051 U	0.046 U
Total Xylenes	mg/kg	0.0058 U	39 J	0.0055 UJ	0.0056 U	0.0057 U	29	0.0027 J	0.010	0.090	45 J	120	90	0.0060 U	0.0061 U	0.065 J	0.088 J	0.12 J

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:	Units	BH8	BH9	BH9	BH10	BH10	BH11	BH11	BH12	BH12	FS-1	FS-2	FS-3	FS-4	FS-5	FS-6
Sample Depth (ft bgs):		2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1
Date Collected:		03/06/07	03/06/07	03/06/07	03/06/07	03/06/07	03/06/07	03/06/07	03/06/07	03/06/07	06/12/95	06/12/95	06/12/95	06/12/95	06/12/95	06/12/95
Volatile Organics																
1,1,1,2-Tetrachloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	mg/kg	0.049 U	0.046 U	0.049 U	0.041 U	0.038 U	0.052 U	0.048 U	0.045 U [0.046 U]	0.044 U	0.0054 U	0.0054 U	0.0056 U	0.0056 U	0.0054 U	0.0051 U [0.0051 U]
1,1,2,2-Tetrachloroethane	mg/kg	0.049 U	0.046 U	0.049 U	0.041 U	0.038 U	0.052 U	0.048 U	0.045 U [0.046 U]	0.044 U	0.0054 U	0.0054 U	0.0056 U	0.0056 U	0.0054 U	0.0051 U [0.0051 U]
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	0.24 U	0.23 U	0.25 U	0.21 U	0.19 U	0.26 U	0.24 U	0.23 U [0.23 U]	0.22 U	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	mg/kg	0.049 U	0.046 U	0.049 U	0.041 U	0.038 U	0.052 U	0.048 U	0.045 U [0.046 U]	0.044 U	0.0054 U	0.0054 U	0.0056 U	0.0056 U	0.0054 U	0.0051 U [0.0051 U]
1,1-Dichloroethane	mg/kg	0.049 U	0.046 U	0.049 U	0.041 U	0.038 U	0.052 U	0.048 U	0.045 U [0.046 U]	0.044 U	0.0054 U	0.0054 U	0.0056 U	0.0056 U	0.0054 U	0.0051 U [0.0051 U]
1,1-Dichloroethene	mg/kg	0.049 U	0.046 U	0.049 U	0.041 U	0.038 U	0.052 U	0.048 U	0.045 U [0.046 U]	0.044 U	0.0054 U	0.0054 U	0.0056 U	0.0056 U	0.0054 U	0.0051 U [0.0051 U]
1,2,3-Trichloropropane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	0.24 UJ	0.23 UJ	0.25 UJ	0.21 UJ	0.19 UJ	0.26 UJ	0.24 UJ	0.061 J [0.063 J]	0.22 UJ	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	mg/kg	0.24 UJ	0.23 UJ	0.25 UJ	0.21 UJ	0.19 UJ	0.26 UJ	0.24 UJ	0.23 UJ [0.23 UJ]	0.22 UJ	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	mg/kg	0.24 U	0.23 U	0.25 U	0.21 U	0.19 U	0.26 U	0.24 U	0.23 U [0.23 U]	0.22 U	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	0.097 U	0.092 U	0.098 U	0.082 U	0.076 U	0.10 U	0.095 U	0.090 U [0.091 U]	0.089 U	0.0054 U	0.0054 U	0.0056 U	0.0056 U	0.0054 U	0.0051 U [0.0051 U]
1,2-Dichloroethane	mg/kg	0.049 U	0.046 U	0.049 U	0.041 U	0.038 U	0.052 U	0.048 U	0.045 U [0.046 U]	0.044 U	0.0054 U	0.0054 U	0.0056 U	0.0056 U	0.0054 U	0.0051 U [0.0051 U]
1,2-Dichloroethene (total)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0054 U	0.0054 U	0.0056 U	0.0056 U	0.0054 U	0.0051 U [0.0051 U]
1,2-Dichloropropane	mg/kg	0.049 U	0.046 U	0.049 U	0.041 U	0.038 U	0.052 U	0.048 U	0.045 U [0.046 U]	0.044 U	0.0054 U	0.0054 U	0.0056 U	0.0056 U	0.0054 U	0.0051 U [0.0051 U]
1,3-Dichlorobenzene	mg/kg	0.097 U	0.092 U	0.098 U	0.082 U	0.076 U	0.10 U	0.095 U	0.090 U [0.091 U]	0.089 U	0.0054 U	0.0054 U	0.0056 U	0.0056 U	0.0054 U	0.0051 U [0.0051 U]
1,4-Dichlorobenzene	mg/kg	0.097 U	0.092 U	0.098 U	0.082 U	0.076 U	0.10 U	0.095 U	0.010 J [0.091 U]	0.089 U	0.0054 U	0.0054 U	0.0056 U	0.0056 U	0.0054 U	0.0051 U [0.0051 U]
1,4-Dioxane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	mg/kg	0.73 U	0.69 U	0.74 U	0.62 U	0.57 U	0.78 U	0.72 U	0.68 U [0.68 U]	0.67 U	0.054 U	0.054 U	0.056 U	0.056 U	0.054 U	0.051 U [0.051 U]
2-Chloro-1,3-butadiene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	mg/kg	2.4 U	2.3 U	2.5 U	2.1 U	1.9 U	2.6 U	2.4 U	2.3 U [2.3 U]	2.2 U	0.054 U	0.054 U	0.056 U	0.056 U	0.054 U	0.051 U [0.051 U]
3-Chloropropene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	mg/kg	2.4 U	2.3 U	2.5 U	2.1 U	1.9 U	2.6 U	2.4 U	2.3 U [2.3 U]	2.2 U	0.054 U	0.054 U	0.056 U	0.056 U	0.054 U	0.051 U [0.051 U]
Acetone	mg/kg	0.75	0.93	0.92	0.67	0.63	1.3	0.59 J	0.71 J [0.58 J]	0.51 J	0.054 UJ	0.054 UJ	0.056 UJ	0.056 UJ	0.054 UJ	0.051 UJ [0.0096 UJ]
Acetonitrile	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	mg/kg	0.029 J	0.046 U	0.049 U	0.041 U	0.012 J	0.088	0.016 J	0.045 U [0.046 U]	0.0076 J	0.0054 U	0.0054 U	0.0056 U	0.0056 U	0.0054 U	0.0051 U [0.0051 U]
Bromodichloromethane	mg/kg	0.097 U	0.092 U	0.098 U	0.082 U	0.076 U	0.10 U	0.095 U	0.090 U [0.091 U]	0.089 U	0.0054 U	0.0054 U	0.0056 U	0.0056 U	0.0054 U	0.0051 U [0.0051 U]
Bromoform	mg/kg	0.097 U	0.092 U	0.098 U	0.082 U	0.076 U	0.10 U	0.095 U	0.090 U [0.091 U]	0.089 U	0.0054 U	0.0054 U	0.0056 U	0.0056 U	0.0054 U	0.0051 U [0.0051 U]
Bromomethane	mg/kg	0.19 U	0.18 U	0.20 U	0.16 U	0.15 U	0.21 U	0.19 U	0.18 U [0.18 U]	0.18 U	0.0054 U	0.0054 U	0.0056 UJ	0.0056 U	0.0054 U	0.0051 U [0.0051 U]
Carbon Disulfide	mg/kg	0.24 U	0.23 U	0.25 U	0.21 U	0.19 U	0.26 U	0.24 U	0.23 U [0.23 U]	0.22 U	0.0054 U	0.0054 U	0.0056 U	0.0056 U	0.0054 U	0.0051 U [0.0051 U]
Carbon Tetrachloride	mg/kg	0.049 U	0.046 U	0.049 U	0.041 U	0.038 U	0.052 U	0.048 U	0.045 U [0.046 U]	0.044 U	0.0054 U	0.0054 U	0.0056 U	0.0056 U	0.0054 U	0.0051 U [0.0051 U]
Chlorobenzene	mg/kg	0.049 U	0.046 U	0.049 U	0.041 U	0.038 U	0.052 U	0.048 U	0.045 U [0.046 U]	0.044 U	0.0054 U	0.0054 U	0.0056 U	0.0056 U	0.0054 U	0.0051 U [0.0051 U]
Chloroethane	mg/kg	0.24 U	0.23 U	0.25 U	0.21 U	0.19 U	0.26 U	0.24 U	0.23 U [0.23 U]	0.22 U	0.0054 U	0.0054 U	0.0056 U	0.0056 U	0.0054 U	0.0051 U [0.0051 UJ]
Chloroform	mg/kg	0.049 U	0.046 U	0.049 U	0.041 U	0.038 U	0.052 U	0.048 U	0.045 U [0.046 U]	0.044 U	0.0054 U	0.0054 U	0.0056 U	0.0056 U	0.0054 U	0.0051 U [0.0051 U]
Chloromethane	mg/kg	0.24 U	0.23 U	0.25 U	0.21 U	0.19 U	0.26 U	0.24 U	0.23 U [0.23 U]	0.22 U	0.0054 UJ	0.0054 UJ	0.0056 U	0.0056 UJ	0.0054 UJ	0.0051 UJ [0.0051 UJ]
cis-1,2-Dichloroethene	mg/kg	0.049 U	0.046 U	0.049 U	0.041 U	0.038 U	0.052 U	0.048 U	0.045 U [0.046 U]	0.044 U	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	mg/kg	0.049 U	0.046 U	0.049 U	0.041 U	0.038 U	0.052 U	0.048 U	0.045 U [0.046 U]	0.044 U	0.0054 U	0.0054 U	0.0056 U	0.0056 U	0.0054 U	0.0051 U [0.0051 U]
Cyclohexane	mg/kg	0.090 J	1.1 UJ	1.2 UJ	0.99 UJ	0.92 UJ	0.41 J	0.23 J	1.1 UJ [1.1 UJ]	1.1 UJ	NA	NA	NA	NA	NA	NA
Dibromochloromethane	mg/kg	0.049 U	0.046 U	0.049 U	0.041 U	0.038 U	0.052 U	0.048 U	0.045 U [0.046 U]	0.044 U	0.0054 U	0.0054 U	0.0056 U	0.0056 U	0.0054 U	0.0051 U [0.0051 U]
Dibromomethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	mg/kg	0.097 U	0.092 U	0.098 U	0.082 U	0.076 U	0.10 U	0.095 U	0.090 U [0.091 U]	0.089 U	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		BH8	BH9	BH9	BH10	BH10	BH11	BH11	BH12	BH12	FS-1	FS-2	FS-3	FS-4	FS-5	FS-6
Sample Depth (ft bgs):		2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1
Date Collected:	Units	03/06/07	03/06/07	03/06/07	03/06/07	03/06/07	03/06/07	03/06/07	03/06/07	03/06/07	06/12/95	06/12/95	06/12/95	06/12/95	06/12/95	06/12/95
Volatile Organics																
Ethylbenzene	mg/kg	0.027 J	0.046 U	0.049 U	0.041 U	0.010 J	0.17	0.33	0.045 U [0.046 U]	0.0077 J	0.0054 U	0.0054 U	0.0056 U	0.0056 U	0.0054 U	0.0051 U [0.0051 U]
Iodomethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isobutanol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	mg/kg	0.060 J	0.23 U	0.25 U	0.21 U	0.19 U	0.10 J	0.097 J	0.23 U [0.23 U]	0.051 J	NA	NA	NA	NA	NA	NA
Methacrylonitrile	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	mg/kg	1.2 U	1.1 U	1.2 U	0.99 U	0.92 U	1.2 U	1.1 U	1.1 U [1.1 U]	1.1 U	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	mg/kg	0.19 J	0.077 J	1.2 UJ	0.060 J	0.92 UJ	0.98 J	0.78 J	1.1 UJ [1.1 UJ]	1.1 UJ	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	mg/kg	0.24 U	0.23 U	0.25 U	0.21 U	0.19 U	0.26 U	0.24 U	0.23 U [0.23 U]	0.22 U	NA	NA	NA	NA	NA	NA
Methylene Chloride	mg/kg	0.24 U	0.23 U	0.25 U	0.21 U	0.19 U	0.26 U	0.24 U	0.23 U [0.23 U]	0.22 U	0.0050 U	0.0067 U	0.0090 UJ	0.0040 U	0.0067 UJ	0.014 UJ [0.0095 UJ]
Propionitrile	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	mg/kg	0.049 U	0.046 U	0.049 U	0.041 U	0.038 U	0.052 U	0.048 U	0.045 U [0.046 U]	0.044 U	0.0054 U	0.0054 U	0.0056 U	0.0056 U	0.0054 U	0.0051 U [0.0051 U]
Tetrachloroethene	mg/kg	0.049 U	0.046 U	0.049 U	0.012 J	0.038 U	0.052 U	0.048 U	0.045 U [0.046 U]	0.011 J	0.0054 U	0.0054 U	0.0056 U	0.0056 U	0.0054 U	0.0051 U [0.0051 U]
Toluene	mg/kg	0.088 J	0.011 J	0.098 U	0.0096 J	0.019 J	0.62	0.095 U	0.090 U [0.091 U]	0.089 U	0.0054 U	0.013 J	0.0052 U	0.0023 U	0.0086 UJ	0.025 J [0.026 J]
trans-1,2-Dichloroethene	mg/kg	0.049 U	0.046 U	0.049 U	0.041 U	0.038 U	0.052 U	0.048 U	0.045 U [0.046 U]	0.044 U	0.0054 U	0.0054 U	0.0056 U	0.0056 U	0.0054 U	0.0051 U [0.0051 U]
trans-1,3-Dichloropropene	mg/kg	0.049 U	0.046 U	0.049 U	0.041 U	0.038 U	0.052 U	0.048 U	0.045 U [0.046 U]	0.044 U	0.0054 U	0.0054 U	0.0056 U	0.0056 U	0.0054 U	0.0051 U [0.0051 U]
trans-1,4-Dichloro-2-butene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	mg/kg	0.049 U	0.046 U	0.049 U	0.041 U	0.038 U	0.052 U	0.048 U	0.045 U [0.046 U]	0.044 U	0.0054 U	0.0054 U	0.0056 U	0.0056 U	0.0054 U	0.0051 U [0.0051 U]
Trichlorofluoromethane	mg/kg	0.097 U	0.092 U	0.098 U	0.082 U	0.076 U	0.10 U	0.095 U	0.090 U [0.091 U]	0.089 U	NA	NA	NA	NA	NA	NA
Vinyl Acetate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	mg/kg	0.039 U	0.037 U	0.039 U	0.033 U	0.031 U	0.042 U	0.038 U	0.036 U [0.036 U]	0.036 U	0.0054 U	0.0054 U	0.0056 U	0.0056 U	0.0054 U	0.0051 U [0.0051 U]
Total 1,3-Dichloropropenes	mg/kg	0.049 U	0.046 U	0.049 U	0.041 U	0.038 U	0.052 U	0.048 U	0.045 U [0.046 U]	0.044 U	0.0054 U	0.0054 U	0.0056 U	0.0056 U	0.0054 U	0.0051 U [0.0051 U]
Total Xylenes	mg/kg	0.21	0.056 J	0.033 J	0.047 J	0.056 J	1.2	0.36	0.050 J [0.14 U]	0.055 J	0.0054 U	0.0054 U	0.0056 U	0.0056 U	0.0054 U	0.0051 U [0.0051 U]

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		FS-7	FS-8	MW-126WT	MW-145WT	NS-1	NS-7	NS-8	NS-9	NS-10	NS-RS-4	PL-1	PL-2	PL-3	PL-4	P1-B42
Sample Depth (ft bgs):		0 - 1	0 - 1	14 - 16	7 - 17	0 - 14	0 - 4.5	0 - 10	0 - 4.5	0 - 10	2.5 - 3	0.75 - 1.21	0.75 - 1.67	0.67 - 1.67	0.75 - 1.5	4 - 6
Date Collected:	Units	06/12/95	06/12/95	02/08/95	06/08/95	06/23/95	06/21/95	06/21/95	06/21/95	06/21/95	06/13/95	08/10/01	08/10/01	08/10/01	08/10/01	09/07/90
Volatile Organics																
1,1,1,2-Tetrachloroethane	mg/kg	NA	NA	0.0057 U	NA	NA	NA	NA	NA	NA	0.0063 U	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	mg/kg	0.0054 U	0.0052 U	0.0057 U	0.0066 U	0.0074 U	0.0063 U	0.0072 U	0.0065 U	0.0067 U	0.0063 U	0.0060 U	0.0050 U [0.0060 U]	0.0060 U	0.0060 U	NA
1,1,2,2-Tetrachloroethane	mg/kg	0.0054 UJ	0.0052 U	0.0057 U	0.0066 U	0.0074 U	0.0063 U	0.0072 U	0.0065 U	0.0067 U	0.0063 U	0.0060 U	0.0050 U [0.0060 U]	0.0060 U	0.0060 UJ	NA
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0060 U	0.0050 U [0.0060 U]	0.0060 U	0.0060 U	NA
1,1,2-Trichloroethane	mg/kg	0.0054 U	0.0052 U	0.0057 U	0.0066 U	0.0074 U	0.0063 U	0.0072 U	0.0065 U	0.0067 U	0.0063 U	0.0060 U	0.0050 UJ [0.0060 UJ]	0.0060 U	0.0060 UJ	NA
1,1-Dichloroethane	mg/kg	0.0054 U	0.0052 U	0.0058	0.0066 U	0.0074 U	0.0063 U	0.0072 U	0.0065 U	0.0067 U	0.0063 U	0.0060 U	0.0050 U [0.0060 U]	0.0060 U	0.0060 U	NA
1,1-Dichloroethene	mg/kg	0.0054 U	0.0052 U	0.0057 U	0.0066 U	0.0074 U	0.0063 U	0.0072 U	0.0065 U	0.0067 U	0.0063 U	0.0060 U	0.0050 U [0.0060 U]	0.0060 U	0.0060 U	NA
1,2,3-Trichloropropane	mg/kg	NA	NA	0.0057 U	NA	NA	NA	NA	NA	NA	0.0063 U	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0060 U	NA	0.0060 U	0.0060 UJ	NA
1,2,4-Trimethylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	mg/kg	NA	NA	0.011 U	NA	NA	NA	NA	NA	NA	0.013 U	0.0060 U	0.0050 U [0.0060 U]	0.0060 U	0.0060 UJ	NA
1,2-Dibromoethane	mg/kg	NA	NA	0.0057 U	NA	NA	NA	NA	NA	NA	0.0063 U	0.0060 U	0.0050 UJ [0.0060 UJ]	0.0060 U	0.0060 UJ	NA
1,2-Dichlorobenzene	mg/kg	0.0054 UJ	0.0052 U	0.0057 U	0.0066 U	0.0074 U	0.0063 U	0.0072 U	0.0065 U	0.0067 U	0.0063 U	0.0060 U	0.0050 U [0.0060 U]	0.0060 U	0.0060 UJ	NA
1,2-Dichloroethane	mg/kg	0.0054 U	0.0052 U	0.0057 U	0.0066 U	0.0074 U	0.0063 U	0.0072 U	0.0065 U	0.0067 U	0.0063 U	0.0060 U	0.0050 U [0.0060 U]	0.0060 U	0.0060 U	NA
1,2-Dichloroethene (total)	mg/kg	0.0054 U	0.0052 U	0.025	0.0066 U	0.0074 U	0.0063 U	0.0072 U	0.0065 U	0.0067 U	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	mg/kg	0.0054 U	0.0052 U	0.0057 U	0.0066 U	0.0074 U	0.0063 U	0.0072 U	0.0065 U	0.0067 U	0.0063 U	0.0060 U	0.0050 U [0.0060 U]	0.0060 U	0.0060 U	NA
1,3-Dichlorobenzene	mg/kg	0.0054 UJ	0.0052 U	0.0057 U	0.0066 U	0.0074 U	0.0063 U	0.0072 U	0.0065 U	0.0067 U	0.0063 U	0.0060 U	0.0050 U [0.0060 U]	0.0060 U	0.0060 UJ	NA
1,4-Dichlorobenzene	mg/kg	0.0054 UJ	0.0052 U	0.0057 U	0.0066 U	0.0074 U	0.0063 U	0.0072 U	0.0065 U	0.0067 U	0.0063 U	0.0060 U	NA	0.0060 U	0.0060 UJ	NA
1,4-Dioxane	mg/kg	NA	NA	1.1 U	NA	NA	NA	NA	NA	NA	R	NA	NA	NA	NA	NA
2-Butanone	mg/kg	0.054 U	0.052 U	0.057 U	0.0056 J	0.018 J	0.0044 J	0.0091 J	0.0063 J	0.0031 J	0.0070 J	0.0060 U	0.0050 U [0.0060 U]	0.0060 U	0.0060 U	NA
2-Chloro-1,3-butadiene	mg/kg	NA	NA	0.0057 U	NA	NA	NA	NA	NA	NA	0.0063 U	NA	NA	NA	NA	NA
2-Hexanone	mg/kg	0.054 UJ	0.052 U	0.057 U	0.066 UJ	0.074 U	0.063 U	0.072 U	0.065 U	0.067 U	0.063 U	0.0060 U	0.0050 UJ [0.0060 UJ]	0.0060 U	0.0060 UJ	NA
3-Chloropropene	mg/kg	NA	NA	0.0057 U	NA	NA	NA	NA	NA	NA	0.0063 U	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	mg/kg	0.054 U	0.052 U	0.057 U	0.066 U	0.074 U	0.063 U	0.072 U	0.065 U	0.067 U	0.063 U	0.0060 U	0.0050 U [0.0060 U]	0.0060 U	0.0060 U	NA
Acetone	mg/kg	0.054 UJ	0.052 UJ	0.020 U	0.025 J	0.065 JB	0.019 J	0.028 J	0.027 J	0.067 U	0.067 UJ	0.013 U	0.011 U [0.012 U]	0.011 U	0.011 U	NA
Acetonitrile	mg/kg	NA	NA	0.057 UJ	NA	NA	NA	NA	NA	NA	0.063 U	NA	NA	NA	NA	NA
Acrolein	mg/kg	NA	NA	0.057 UJ	NA	NA	NA	NA	NA	NA	0.063 U	NA	NA	NA	NA	NA
Acrylonitrile	mg/kg	NA	NA	0.057 UJ	NA	NA	NA	NA	NA	NA	0.063 U	NA	NA	NA	NA	NA
Benzene	mg/kg	0.0054 U	0.0052 U	0.0057 U	0.0066 U	0.0074 U	0.0063 U	0.0072 U	0.0065 U	0.0067 U	0.0063 U	0.0060 U	0.0050 U [0.0060 U]	0.0060 U	0.0060 U	0.010 U
Bromodichloromethane	mg/kg	0.0054 U	0.0052 U	0.0057 U	0.0066 U	0.0074 U	0.0063 U	0.0072 U	0.0065 U	0.0067 U	0.0063 U	0.0060 U	0.0050 U [0.0060 U]	0.0060 U	0.0060 U	NA
Bromoform	mg/kg	0.0054 U	0.0052 U	0.0057 U	0.0066 U	0.0074 U	0.0063 U	0.0072 U	0.0065 U	0.0067 U	0.0063 U	0.0060 U	0.0050 UJ [0.0060 UJ]	0.0060 U	0.0060 UJ	NA
Bromomethane	mg/kg	0.0054 U	0.0052 U	0.0057 U	0.0066 U	0.0074 U	0.0063 U	0.0072 U	0.0065 U	0.0067 U	0.0063 UJ	0.0060 U	0.0050 U [0.0060 U]	0.0060 U	0.0060 U	NA
Carbon Disulfide	mg/kg	0.0054 U	0.0052 U	0.0057 U	0.0066 U	0.0074 U	0.0063 U	0.0072 U	0.0065 U	0.0067 U	0.0063 U	0.0060 U	0.0050 U [0.0060 U]	0.0060 U	0.0060 U	NA
Carbon Tetrachloride	mg/kg	0.0054 U	0.0052 U	0.0057 U	0.0066 U	0.0074 U	0.0063 U	0.0072 U	0.0065 U	0.0067 U	0.0063 U	0.0060 U	0.0050 U [0.0060 U]	0.0060 U	0.0060 U	NA
Chlorobenzene	mg/kg	0.0054 UJ	0.0052 U	0.0057 U	0.0066 U	0.0074 U	0.0063 U	0.0072 U	0.0065 U	0.0067 U	0.0063 U	0.0060 U	0.0050 UJ [0.0060 UJ]	0.0060 U	0.0060 UJ	NA
Chloroethane	mg/kg	0.0054 U	0.0052 U	0.0057 U	0.0066 U	0.0074 U	0.0063 U	0.0072 U	0.0065 U	0.0067 U	0.0063 UJ	0.0060 U	0.0050 U [0.0060 U]	0.0060 U	0.0060 U	NA
Chloroform	mg/kg	0.0054 U	0.0052 U	0.0057 U	0.0066 U	0.0074 U	0.0063 U	0.0072 U	0.0065 U	0.0067 U	0.0063 U	0.0060 U	0.0050 U [0.0060 U]	0.0060 U	0.0060 U	NA
Chloromethane	mg/kg	0.0054 UJ	0.0052 UJ	0.0057 U	0.0066 U	0.0074 U	0.0063 U	0.0072 U	0.0065 U	0.0067 U	0.0063 U	0.0060 U	0.0050 U [0.0060 U]	0.0060 U	0.0060 U	NA
cis-1,2-Dichloroethene	mg/kg	NA	NA	0.025	NA	NA	NA	NA	NA	NA	0.0063 U	0.0060 U	0.0050 U [0.0060 U]	0.0060 U	0.0060 U	NA
cis-1,3-Dichloropropene	mg/kg	0.0054 U	0.0052 U	0.0057 U	0.0066 U	0.0074 U	0.0063 U	0.0072 U	0.0065 U	0.0067 U	0.0063 U	0.0060 U	0.0050 U [0.0060 U]	0.0060 U	0.0060 U	NA
Cyclohexane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0060 U	0.0050 U [0.0060 U]	0.0060 U	0.0060 U	NA
Dibromochloromethane	mg/kg	0.0054 U	0.0052 U	0.0057 U	0.0066 U	0.0074 U	0.0063 U	0.0072 U	0.0065 U	0.0067 U	0.0063 U	0.0060 U	0.0050 UJ [0.0060 UJ]	0.0060 U	0.0060 UJ	NA
Dibromomethane	mg/kg	NA	NA	0.0057 U	NA	NA	NA	NA	NA	NA	0.0063 U	NA	NA	NA	NA	NA
Dichlorodifluoromethane	mg/kg	NA	NA	0.0057 U	NA	NA	NA	NA	NA	NA	0.0063 U	0.0060 U	0.0050 U [0.0060 U]	0.0060 U	0.0060 U	NA
Ethyl Methacrylate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0063 U	NA	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		FS-7	FS-8	MW-126WT	MW-145WT	NS-1	NS-7	NS-8	NS-9	NS-10	NS-RS-4	PL-1	PL-2	PL-3	PL-4	P1-B42
Sample Depth (ft bgs):		0 - 1	0 - 1	14 - 16	7 - 17	0 - 14	0 - 4.5	0 - 10	0 - 4.5	0 - 10	2.5 - 3	0.75 - 1.21	0.75 - 1.67	0.67 - 1.67	0.75 - 1.5	4 - 6
Date Collected:	Units	06/12/95	06/12/95	02/08/95	06/08/95	06/23/95	06/21/95	06/21/95	06/21/95	06/21/95	06/13/95	08/10/01	08/10/01	08/10/01	08/10/01	09/07/90
Volatile Organics																
Ethylbenzene	mg/kg	0.0054 UJ	0.0052 U	0.0057 U	0.0066 U	0.0074 U	0.0063 U	0.0072 U	0.0065 U	0.0067 U	0.0063 U	0.0060 U	0.0050 UJ [0.0020 J]	0.0060 U	0.0060 UJ	0.010 U
Iodomethane	mg/kg	NA	NA	0.011 U	NA	NA	NA	NA	NA	NA	0.013 U	NA	NA	NA	NA	NA
Isobutanol	mg/kg	NA	NA	0.57 U	NA	NA	NA	NA	NA	NA	R	NA	NA	NA	NA	NA
Isopropylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0060 U	0.0050 UJ [0.0060 UJ]	0.0060 U	0.0060 UJ	NA
Methacrylonitrile	mg/kg	NA	NA	0.023 UJ	NA	NA	NA	NA	NA	NA	0.025 U	NA	NA	NA	NA	NA
Methyl acetate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0060 U	0.0050 U [0.0060 U]	0.0060 U	0.0060 U	NA
Methyl cyclohexane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0060 U	0.0050 U [0.0060 U]	0.0060 U	0.0060 U	NA
Methyl Methacrylate	mg/kg	NA	NA	0.0057 U	NA	NA	NA	NA	NA	NA	0.0063 U	NA	NA	NA	NA	NA
Methyl tert-butyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0060 U	0.0050 U [0.0060 U]	0.0060 U	0.0060 U	NA
Methylene Chloride	mg/kg	0.012 U	0.0081 UJ	0.018	0.0049 J	0.0070 U	0.039 U	0.0087 U	0.0060 U	0.0070 U	0.0063 U	0.0060 UJ	0.0050 UJ [0.0060 UJ]	0.0060 UJ	0.0060 UJ	NA
Propionitrile	mg/kg	NA	NA	0.023 UJ	NA	NA	NA	NA	NA	NA	0.025 U	NA	NA	NA	NA	NA
Styrene	mg/kg	0.0054 UJ	0.0052 U	0.0057 U	0.0066 U	0.0074 U	0.0063 U	0.0072 U	0.0065 U	0.0067 U	0.0063 U	0.0060 U	0.0050 UJ [0.0060 UJ]	0.0060 U	0.0060 UJ	NA
Tetrachloroethene	mg/kg	0.0054 UJ	0.0052 U	0.0057 U	0.0066 U	0.0074 U	0.0063 U	0.0072 U	0.0065 U	0.0067 U	0.0063 U	0.0060 U	0.0050 UJ [0.0060 UJ]	0.0060 U	0.0060 UJ	NA
Toluene	mg/kg	0.0080 UJ	0.026 J	0.0057 U	0.024	0.018	0.0063 U	0.010	0.011	0.0067 U	0.0059 U	0.0010 J	0.0050 UJ [0.0040 J]	0.0060 U	0.00090 J	0.010 U
trans-1,2-Dichloroethene	mg/kg	0.0054 U	0.0052 U	0.0057 U	0.0066 U	0.0074 U	0.0063 U	0.0072 U	0.0065 U	0.0067 U	0.0063 U	0.0025 U	0.0050 U [0.0060 U]	0.0060 U	0.0060 U	NA
trans-1,3-Dichloropropene	mg/kg	0.0054 U	0.0052 U	0.0057 U	0.0066 U	0.0074 U	0.0063 U	0.0072 U	0.0065 U	0.0067 U	0.0063 U	0.0060 U	0.0050 UJ [0.0060 UJ]	0.0060 U	0.0060 UJ	NA
trans-1,4-Dichloro-2-butene	mg/kg	NA	NA	0.0057 U	NA	NA	NA	NA	NA	NA	0.0063 U	NA	NA	NA	NA	NA
Trichloroethene	mg/kg	0.0054 U	0.0052 U	0.0057 U	0.0066 U	0.0074 U	0.0063 U	0.0072 U	0.0065 U	0.0067 U	0.0063 U	0.0060 U	0.0050 U [0.0060 U]	0.0060 U	0.0060 U	NA
Trichlorofluoromethane	mg/kg	NA	NA	0.0057 U	NA	NA	NA	NA	NA	NA	0.0063 U	0.010 U	0.0050 U [0.0060 U]	0.0060 U	0.0060 U	NA
Vinyl Acetate	mg/kg	NA	NA	0.057 U	NA	NA	NA	NA	NA	NA	0.063 U	NA	NA	NA	NA	NA
Vinyl Chloride	mg/kg	0.0054 U	0.0052 U	0.0057 U	0.0066 U	0.0074 U	0.0063 U	0.0072 U	0.0065 U	0.0067 U	0.0063 U	0.010 U	0.0050 U [0.0060 U]	0.0060 U	0.0060 U	NA
Total 1,3-Dichloropropenes	mg/kg	0.0054 U	0.0052 U	0.0057 U	0.0066 U	0.0074 U	0.0063 U	0.0072 U	0.0065 U	0.0067 U	0.0063 U	0.0060 U	0.0050 U [0.0060 U]	0.0060 U	0.0060 U	NA
Total Xylenes	mg/kg	0.0054 UJ	0.0052 U	0.0057 U	0.0066 U	0.0074 U	0.0063 U	0.0072 U	0.0065 U	0.0067 U	0.0063 U	0.0020 J	0.0050 UJ [0.010 J]	0.0060 U	0.0060 UJ	0.011

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		P1-B43	P1-B44	P1-B45	P1-B46	RS-1	RS-2	RS-3	RS-4	RS-5	RS-6	RS-7	RS-8	SB-01A	SB-01A	SB-02	SB-02
Sample Depth (ft bgs):		2- 4	2- 4	4 - 6	2- 4	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	1 - 3	5 - 7	6 - 8	10 - 12
Date Collected:	Units	09/07/90	09/07/90	09/07/90	09/07/90	06/13/95	06/13/95	06/13/95	06/13/95	06/13/95	06/13/95	06/13/95	06/13/95	08/23/01	08/23/01	08/08/91	08/08/91
Volatile Organics																	
1,1,1,2-Tetrachloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	mg/kg	NA	NA	NA	NA	0.0053 U	0.0054 U	0.0054 U	0.0053 U [0.0053 UJ]	0.0053 U	0.0052 U	0.0054 UJ	0.0052 U	0.0053 U	0.0053 U	NA	NA
1,1,2,2-Tetrachloroethane	mg/kg	NA	NA	NA	NA	0.0053 UJ	0.0054 U	0.0054 U	0.0053 U [0.0053 UJ]	0.0053 U	0.0052 U	0.0054 UJ	0.0052 U	0.0053 U	0.0053 U	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	mg/kg	NA	NA	NA	NA	0.0053 U	0.0054 U	0.0054 U	0.0053 U [0.0053 UJ]	0.0053 U	0.0052 U	0.0054 UJ	0.0052 U	0.0053 U	0.0053 UJ	NA	NA
1,1-Dichloroethane	mg/kg	NA	NA	NA	NA	0.0053 U	0.0054 U	0.0054 U	0.0053 U [0.0053 UJ]	0.0053 U	0.0052 U	0.0054 UJ	0.0052 U	0.0053 U	0.0053 U	NA	NA
1,1-Dichloroethene	mg/kg	NA	NA	NA	NA	0.0053 U	0.0054 U	0.0054 U	0.0053 U [0.0053 UJ]	0.0053 U	0.0052 U	0.0054 UJ	0.0052 U	0.0053 U	0.0053 U	NA	NA
1,2,3-Trichloropropane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	NA	NA	NA	NA	0.0053 UJ	0.0054 U	0.0054 U	0.0053 U [0.0053 UJ]	0.0053 U	0.0052 U	0.0054 UJ	0.0052 U	NA	NA	NA	NA
1,2-Dichloroethane	mg/kg	NA	NA	NA	NA	0.0053 U	0.0054 U	0.0054 U	0.0053 U [0.0053 UJ]	0.0053 U	0.0052 U	0.0054 UJ	0.0052 U	0.0053 U	0.0053 U	NA	NA
1,2-Dichloroethene (total)	mg/kg	NA	NA	NA	NA	0.0053 U	0.0054 U	0.0054 U	0.0053 U [0.0053 UJ]	0.0053 U	0.0052 U	0.0054 UJ	0.0052 U	0.0053 U	0.0053 U	NA	NA
1,2-Dichloropropane	mg/kg	NA	NA	NA	NA	0.0053 U	0.0054 U	0.0054 U	0.0053 U [0.0053 UJ]	0.0053 U	0.0052 U	0.0054 UJ	0.0052 U	0.0053 U	0.0053 U	NA	NA
1,3-Dichlorobenzene	mg/kg	NA	NA	NA	NA	0.0053 UJ	0.0054 U	0.0054 U	0.0053 U [0.0053 UJ]	0.0053 U	0.0052 U	0.0054 UJ	0.0052 U	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	NA	NA	NA	NA	0.0053 UJ	0.0054 U	0.0054 U	0.0053 U [0.0053 UJ]	0.0053 U	0.0052 U	0.0054 UJ	0.0052 U	NA	NA	NA	NA
1,4-Dioxane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	mg/kg	NA	NA	NA	NA	0.053 U	0.054 U	0.054 U	0.053 U [0.053 UJ]	0.053 U	0.052 U	0.054 UJ	0.052 U	0.0050 U	0.0050 U	NA	NA
2-Chloro-1,3-butadiene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	mg/kg	NA	NA	NA	NA	0.053 UJ	0.054 U	0.054 U	0.053 U [0.053 UJ]	0.053 U	0.052 U	0.054 UJ	0.052 U	0.0050 U	0.0050 UJ	NA	NA
3-Chloropropene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	mg/kg	NA	NA	NA	NA	0.053 U	0.054 U	0.054 U	0.053 U [0.053 UJ]	0.053 U	0.052 U	0.054 UJ	0.052 U	0.0050 U	0.0050 U	NA	NA
Acetone	mg/kg	NA	NA	NA	NA	0.053 UJ	0.054 UJ	0.054 UJ	0.053 UJ [0.053 UJ]	0.011 J	0.052 UJ	0.015 UJ	0.052 UJ	0.011 U	0.011 U	NA	NA
Acetonitrile	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	mg/kg	0.010 U	0.025	0.130	0.010 U	0.0053 U	0.0054 U	0.0054 U	0.0053 U [0.0053 UJ]	0.0053 U	0.0052 U	0.0054 UJ	0.0052 U	0.0053 U	0.0053 U	0.0010 U	0.0010 U
Bromodichloromethane	mg/kg	NA	NA	NA	NA	0.0053 U	0.0054 U	0.0054 U	0.0053 U [0.0053 UJ]	0.0053 U	0.0052 U	0.0054 UJ	0.0052 U	0.0053 U	0.0053 U	NA	NA
Bromoform	mg/kg	NA	NA	NA	NA	0.0053 U	0.0054 U	0.0054 U	0.0053 U [0.0053 UJ]	0.0053 U	0.0052 U	0.0054 UJ	0.0052 U	0.0053 U	0.0053 UJ	NA	NA
Bromomethane	mg/kg	NA	NA	NA	NA	0.0053 U	0.0054 U	0.0054 U	0.0053 UJ [0.0053 UJ]	0.0053 UJ	0.0052 UJ	0.0054 UJ	0.0052 UJ	0.0050 U	0.0050 U	NA	NA
Carbon Disulfide	mg/kg	NA	NA	NA	NA	0.0053 U	0.0054 U	0.0054 U	0.0053 U [0.0053 UJ]	0.0053 U	0.0052 U	0.0054 UJ	0.0052 U	0.0053 U	0.0053 U	NA	NA
Carbon Tetrachloride	mg/kg	NA	NA	NA	NA	0.0053 U	0.0054 U	0.0054 U	0.0053 U [0.0053 UJ]	0.0053 U	0.0052 U	0.0054 UJ	0.0052 U	0.0053 U	0.0053 U	NA	NA
Chlorobenzene	mg/kg	NA	NA	NA	NA	0.0053 UJ	0.0054 U	0.0054 U	0.0053 U [0.0053 UJ]	0.0053 U	0.0052 U	0.0054 UJ	0.0052 U	0.0053 U	0.0053 UJ	0.0010 U	0.0010 U
Chloroethane	mg/kg	NA	NA	NA	NA	0.0053 UJ	0.0054 UJ	0.0054 UJ	0.0053 UJ [0.0053 UJ]	0.0053 UJ	0.0052 UJ	0.0054 UJ	0.0052 UJ	0.0050 U	0.0050 U	NA	NA
Chloroform	mg/kg	NA	NA	NA	NA	0.0053 U	0.0054 U	0.0054 U	0.0053 U [0.0053 UJ]	0.0053 U	0.0052 U	0.0054 UJ	0.0052 U	0.0053 U	0.0053 U	NA	NA
Chloromethane	mg/kg	NA	NA	NA	NA	0.0053 UJ	0.0054 UJ	0.0054 UJ	0.0053 U [0.0053 UJ]	0.0053 U	0.0052 U	0.0054 UJ	0.0052 U	0.0050 U	0.0050 U	NA	NA
cis-1,2-Dichloroethene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	mg/kg	NA	NA	NA	NA	0.0053 U	0.0054 U	0.0054 U	0.0053 U [0.0053 UJ]	0.0053 U	0.0052 U	0.0054 UJ	0.0052 U	0.0053 U	0.0053 U	NA	NA
Cyclohexane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	mg/kg	NA	NA	NA	NA	0.0053 U	0.0054 U	0.0054 U	0.0053 U [0.0053 UJ]	0.0053 U	0.0052 U	0.0054 UJ	0.0052 U	0.0053 U	0.0053 UJ	NA	NA
Dibromomethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		P1-B43	P1-B44	P1-B45	P1-B46	RS-1	RS-2	RS-3	RS-4	RS-5	RS-6	RS-7	RS-8	SB-01A	SB-01A	SB-02	SB-02
Sample Depth (ft bgs):		2- 4	2- 4	4 - 6	2- 4	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	1 - 3	5 - 7	6 - 8	10 - 12
Date Collected:	Units	09/07/90	09/07/90	09/07/90	09/07/90	06/13/95	06/13/95	06/13/95	06/13/95	06/13/95	06/13/95	06/13/95	06/13/95	08/23/01	08/23/01	08/08/91	08/08/91
Volatile Organics																	
Ethylbenzene	mg/kg	0.010 U	0.010 U	0.045	0.010 U	0.0053 UJ	0.0054 U	0.0054 U	0.0053 U [0.0053 UJ]	0.0053 U	0.0052 U	0.0054 UJ	0.0052 U	0.0053 U	0.0053 UJ	0.0010 U	0.0010 U
Iodomethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isobutanol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	mg/kg	NA	NA	NA	NA	0.019 UJ	0.0068 U	0.0078 UJ	0.0052 U [0.0050 UJ]	0.0048 U	0.0061 U	0.021 UJ	0.010 U	0.0053 U	0.0053 U	NA	NA
Propionitrile	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	mg/kg	NA	NA	NA	NA	0.0053 UJ	0.0054 U	0.0054 U	0.0053 U [0.0053 UJ]	0.0053 U	0.0052 U	0.0054 UJ	0.0052 U	0.0053 U	0.0053 UJ	NA	NA
Tetrachloroethene	mg/kg	NA	NA	NA	NA	0.0053 UJ	0.0054 U	0.0054 U	0.0053 U [0.0053 UJ]	0.0053 U	0.0052 U	0.0054 UJ	0.0052 U	0.0053 U	0.0053 UJ	NA	NA
Toluene	mg/kg	0.010 U	0.030	0.140	0.010 U	0.0053 UJ	0.0054 U	0.0054 U	0.0053 U [0.0053 UJ]	0.0053 U	0.0052 U	0.0071 UJ	0.0052 U	0.0053 U	0.0053 UJ	0.0010 U	0.0010 U
trans-1,2-Dichloroethene	mg/kg	NA	NA	NA	NA	0.0053 U	0.0054 U	0.0054 U	0.0053 U [0.0053 UJ]	0.0053 U	0.0052 U	0.0054 UJ	0.0052 U	NA	NA	NA	NA
trans-1,3-Dichloropropene	mg/kg	NA	NA	NA	NA	0.0053 U	0.0054 U	0.0054 U	0.0053 U [0.0053 UJ]	0.0053 U	0.0052 U	0.0054 UJ	0.0052 U	0.0053 U	0.0053 UJ	NA	NA
trans-1,4-Dichloro-2-butene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	mg/kg	NA	NA	NA	NA	0.0053 U	0.0054 U	0.0054 U	0.0053 U [0.0053 UJ]	0.0053 U	0.0052 U	0.0054 UJ	0.0052 U	0.0053 U	0.0053 U	NA	NA
Trichlorofluoromethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Acetate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	mg/kg	NA	NA	NA	NA	0.0053 U	0.0054 U	0.0054 U	0.0053 U [0.0053 UJ]	0.0053 U	0.0052 U	0.0054 UJ	0.0052 U	0.0050 U	0.0050 U	NA	NA
Total 1,3-Dichloropropenes	mg/kg	NA	NA	NA	NA	0.0053 U	0.0054 U	0.0054 U	0.0053 U [0.0053 U]	0.0053 U	0.0052 U	0.0054 U	0.0052 U	0.0053 U	0.0053 U	NA	NA
Total Xylenes	mg/kg	0.010 U	0.045	0.260	0.010 U	0.0053 UJ	0.0054 U	0.0054 U	0.0053 U [0.0053 UJ]	0.0053 U	0.0052 U	0.0033 J	0.0052 U	0.0053 U	0.0053 UJ	0.0010 U	0.0010 U

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		SB-03	SB-03	SB-04	SB-04	SB-304	SB-304	SB-304	SB-305	SB-305	SB-305	SB-305	SB-312	SB-313	SB-319	SB-325	SB-336	SB-337
Sample Depth (ft bgs):		8 - 10	14 - 16	6 - 8	14 - 16	0 - 1	2 - 4	6 - 8	0 - 1	2 - 4	6 - 8	10 - 12	8 - 10	4 - 6	14 - 16	8 - 10	0 - 2	4 - 6
Date Collected:	Units	08/08/91	08/08/91	08/31/91	08/31/91	02/08/95	02/08/95	02/08/95	02/08/95	02/08/95	02/08/95	02/08/95	06/06/95	06/07/95	06/13/95	06/14/95	06/23/95	06/23/95
Volatile Organics																		
1,1,1,2-Tetrachloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0069 U	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	mg/kg	NA	NA	NA	NA	0.0054 U	0.0053 U	0.0063 U	0.0056 U	0.0054 U	0.0056 U	0.0069 U	0.0062 U	0.0056 U	0.0065 U	0.0060 UJ	0.0053 U	0.0053 U
1,1,2,2-Tetrachloroethane	mg/kg	NA	NA	NA	NA	0.0054 U	0.0053 U	0.0063 U	0.0056 UJ	0.0054 U	0.0056 U	0.0069 U	0.0062 U	0.0056 U	0.0065 U	0.0060 UJ	0.0053 U	0.0053 U
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	mg/kg	NA	NA	NA	NA	0.0054 U	0.0053 U	0.0063 U	0.0056 U	0.0054 U	0.0056 U	0.0069 U	0.0062 U	0.0056 U	0.0065 U	0.0060 UJ	0.0053 U	0.0053 U
1,1-Dichloroethane	mg/kg	NA	NA	NA	NA	0.0054 U	0.0053 U	0.0063 U	0.0056 U	0.0054 U	0.0056 U	0.0069 U	0.0062 U	0.0056 U	0.0065 U	0.0060 UJ	0.0053 U	0.0053 U
1,1-Dichloroethene	mg/kg	NA	NA	NA	NA	0.0054 U	0.0053 U	0.0063 U	0.0056 U	0.0054 U	0.0056 U	0.0069 U	0.0062 U	0.0056 U	0.0065 U	0.0060 UJ	0.0053 U	0.0053 U
1,2,3-Trichloropropane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0069 U	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.014 UJ	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0069 U	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	NA	NA	NA	NA	0.0054 U	0.0053 U	0.0063 U	0.0056 UJ	0.0054 U	0.0056 U	0.0069 U	0.0062 U	0.0056 U	0.0065 U	0.0060 UJ	0.0053 U	0.0053 U
1,2-Dichloroethane	mg/kg	NA	NA	NA	NA	0.0054 U	0.0053 U	0.0063 U	0.0056 U	0.0054 U	0.0056 U	0.0069 U	0.0062 U	0.0056 U	0.0065 U	0.0060 UJ	0.0053 U	0.0053 U
1,2-Dichloroethene (total)	mg/kg	NA	NA	NA	NA	0.0054 U	0.0053 U	0.0063 U	0.0056 U	0.0054 U	0.0056 U	0.0069 U	0.0062 U	0.0056 U	0.0065 U	0.0060 UJ	0.0053 U	0.0053 U
1,2-Dichloropropane	mg/kg	NA	NA	NA	NA	0.0054 U	0.0053 U	0.0063 U	0.0056 U	0.0054 U	0.0056 U	0.0069 U	0.0062 U	0.0056 U	0.0065 U	0.0060 UJ	0.0053 U	0.0053 U
1,3-Dichlorobenzene	mg/kg	NA	NA	NA	NA	0.0054 U	0.0053 U	0.0063 U	0.0056 UJ	0.0054 U	0.0056 U	0.0069 U	0.0062 U	0.0056 U	0.0065 U	0.0060 UJ	0.0053 U	0.0053 U
1,4-Dichlorobenzene	mg/kg	NA	NA	NA	NA	0.0054 U	0.0053 U	0.0063 U	0.0056 UJ	0.0054 U	0.0056 U	0.0069 U	0.0062 U	0.0056 U	0.0065 U	0.0060 UJ	0.0053 U	0.0053 U
1,4-Dioxane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.4 U	NA	NA	NA	NA	NA	NA
2-Butanone	mg/kg	NA	NA	NA	NA	0.054 U	0.053 U	0.063 U	0.056 UJ	0.054 U	0.056 U	0.012 J	0.062 UJ	0.056 UJ	0.024 J	0.013 J	0.053 U	0.053 U
2-Chloro-1,3-butadiene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0069 U	NA	NA	NA	NA	NA	NA
2-Hexanone	mg/kg	NA	NA	NA	NA	0.054 U	0.053 U	0.063 U	0.056 UJ	0.054 U	0.056 U	0.069 U	0.062 UJ	0.056 UJ	0.065 U	0.060 UJ	0.053 U	0.053 U
3-Chloropropene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0070 UJ	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	mg/kg	NA	NA	NA	NA	0.054 U	0.053 U	0.063 U	0.056 UJ	0.054 U	0.056 U	0.069 U	0.062 U	0.056 U	0.065 U	0.060 UJ	0.053 U	0.053 U
Acetone	mg/kg	NA	NA	NA	NA	0.054 U	0.0053 U	0.0092 U	0.056 UJ	0.054 U	0.034 JB	0.063 JB	0.050 J	0.0055 J	0.085 JB	0.073 J	0.0047 J	0.053 U
Acetonitrile	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.069 UJ	NA	NA	NA	NA	NA	NA
Acrolein	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.069 UJ	NA	NA	NA	NA	NA	NA
Acrylonitrile	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.069 U	NA	NA	NA	NA	NA	NA
Benzene	mg/kg	0.20 U	0.0010 U	1.0 U	0.0010 U	0.0054 U	0.0053 U	0.0063 U	0.0056 U	0.0054 U	0.0056 U	0.0069 U	0.0062 U	0.0024 J	0.0065 U	0.067 J	0.0053 U	0.0053 U
Bromodichloromethane	mg/kg	NA	NA	NA	NA	0.0054 U	0.0053 U	0.0063 U	0.0056 U	0.0054 U	0.0056 U	0.0069 U	0.0062 U	0.0056 U	0.0065 U	0.0060 UJ	0.0053 U	0.0053 U
Bromoform	mg/kg	NA	NA	NA	NA	0.0054 U	0.0053 U	0.0063 U	0.0056 U	0.0054 U	0.0056 U	0.0069 U	0.0062 U	0.0056 U	0.0065 U	0.0060 UJ	0.0053 U	0.0053 U
Bromomethane	mg/kg	NA	NA	NA	NA	0.0054 U	0.0053 U	0.0063 U	0.0056 U	0.0054 U	0.0056 U	0.0069 U	0.0062 U	0.0056 U	0.0065 U	0.0060 UJ	0.0053 U	0.0053 U
Carbon Disulfide	mg/kg	NA	NA	NA	NA	0.0054 U	0.0053 U	0.0063 U	0.0056 U	0.0054 U	0.0056 U	0.0069 U	0.0062 U	0.0056 U	0.0065 U	0.0060 UJ	0.0053 U	0.0053 U
Carbon Tetrachloride	mg/kg	NA	NA	NA	NA	0.0054 U	0.0053 U	0.0063 U	0.0056 U	0.0054 U	0.0056 U	0.0069 U	0.0062 U	0.0056 U	0.0065 U	0.0060 UJ	0.0053 U	0.0053 U
Chlorobenzene	mg/kg	0.20 U	0.0010 U	1.0 U	0.0010 U	0.0054 U	0.0053 U	0.0063 U	0.0056 UJ	0.0054 U	0.0056 U	0.0069 U	0.0062 U	0.0056 U	0.0065 U	0.0060 UJ	0.0053 U	0.0053 U
Chloroethane	mg/kg	NA	NA	NA	NA	0.0054 U	0.0053 U	0.0063 U	0.0056 U	0.0054 U	0.0056 U	0.0069 U	0.0062 U	0.0056 U	0.0065 UJ	0.0060 UJ	0.0053 U	0.0053 U
Chloroform	mg/kg	NA	NA	NA	NA	0.0054 U	0.0053 U	0.0063 U	0.0056 U	0.0054 U	0.0056 U	0.0069 U	0.0062 U	0.0056 U	0.0065 U	0.0060 UJ	0.0053 U	0.0053 U
Chloromethane	mg/kg	NA	NA	NA	NA	0.0054 U	0.0053 U	0.0063 U	0.0056 U	0.0054 U	0.0056 U	0.0069 U	0.0062 U	0.0056 U	0.0065 U	0.0060 UJ	0.0053 U	0.0053 U
cis-1,2-Dichloroethene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0069 U	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	mg/kg	NA	NA	NA	NA	0.0054 U	0.0053 U	0.0063 U	0.0056 U	0.0054 U	0.0056 U	0.0069 U	0.0062 U	0.0056 U	0.0065 U	0.0060 UJ	0.0053 U	0.0053 U
Cyclohexane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	mg/kg	NA	NA	NA	NA	0.0054 U	0.0053 U	0.0063 U	0.0056 U	0.0054 U	0.0056 U	0.0069 U	0.0062 U	0.0056 U	0.0065 U	0.0060 UJ	0.0053 U	0.0053 U
Dibromomethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0069 U	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0069 U	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		SB-03	SB-03	SB-04	SB-04	SB-304	SB-304	SB-304	SB-305	SB-305	SB-305	SB-305	SB-312	SB-313	SB-319	SB-325	SB-336	SB-337
Sample Depth (ft bgs):		8 - 10	14 - 16	6 - 8	14 - 16	0 - 1	2 - 4	6 - 8	0 - 1	2 - 4	6 - 8	10 - 12	8 - 10	4 - 6	14 - 16	8 - 10	0 - 2	4 - 6
Date Collected:	Units	08/08/91	08/08/91	08/31/91	08/31/91	02/08/95	02/08/95	02/08/95	02/08/95	02/08/95	02/08/95	02/08/95	06/06/95	06/07/95	06/13/95	06/14/95	06/23/95	06/23/95
Volatile Organics																		
Ethylbenzene	mg/kg	0.20 U	0.0010 U	1.0 U	0.0010 U	0.0054 U	0.0053 U	0.0063 U	0.0056 UJ	0.0054 U	0.0056 U	0.0069 U	0.0062 U	0.0056 U	0.0065 U	0.027 J	0.0053 U	0.0053 U
Iodomethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.014 U	NA	NA	NA	NA	NA	NA
Isobutanol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.69 U	NA	NA	NA	NA	NA	NA
Isopropylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.027 U	NA	NA	NA	NA	NA	NA
Methyl acetate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0069 U	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	mg/kg	NA	NA	NA	NA	0.0086 U	0.0080 U	0.0064 U	0.032 J	0.019 U	0.013 U	0.0069 U	0.0065	0.0041 J	0.0065 U	0.0060 UJ	0.0030 J	0.0053 U
Propionitrile	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.027 U	NA	NA	NA	NA	NA	NA
Styrene	mg/kg	NA	NA	NA	NA	0.0054 U	0.0053 U	0.0063 U	0.0056 UJ	0.0054 U	0.0056 U	0.0069 U	0.0062 U	0.0056 U	0.0065 U	0.063 J	0.0053 U	0.0053 U
Tetrachloroethene	mg/kg	NA	NA	NA	NA	0.0054 U	0.0053 U	0.0063 U	0.0056 UJ	0.0054 U	0.0056 U	0.0069 U	0.0062 U	0.0056 U	0.0065 U	0.0060 UJ	0.0053 U	0.0053 U
Toluene	mg/kg	0.20 U	0.0010 U	1.0 U	0.0010 U	0.0054 U	0.0053 U	0.0063 U	0.0056 UJ	0.0054 U	0.025	0.017	0.0052 J	0.0056 U	0.0065 U	0.10 J	0.073	0.0049 J
trans-1,2-Dichloroethene	mg/kg	NA	NA	NA	NA	0.0054 U	0.0053 U	0.0063 U	0.0056 U	0.0054 U	0.0056 U	0.0069 U	0.0062 U	0.0056 U	0.0065 U	0.0060 UJ	0.0053 U	0.0053 U
trans-1,3-Dichloropropene	mg/kg	NA	NA	NA	NA	0.0054 U	0.0053 U	0.0063 U	0.0056 U	0.0054 U	0.0056 U	0.0069 U	0.0062 U	0.0056 U	0.0065 U	0.0060 UJ	0.0053 U	0.0053 U
trans-1,4-Dichloro-2-butene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0069 UJ	NA	NA	NA	NA	NA	NA
Trichloroethene	mg/kg	NA	NA	NA	NA	0.0054 U	0.0053 U	0.0063 U	0.0056 U	0.0054 U	0.0056 U	0.0069 U	0.0062 U	0.0056 U	0.0065 U	0.0060 UJ	0.0053 U	0.0053 U
Trichlorofluoromethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0070 UJ	NA	NA	NA	NA	NA	NA
Vinyl Acetate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.069 U	NA	NA	NA	NA	NA	NA
Vinyl Chloride	mg/kg	NA	NA	NA	NA	0.0054 U	0.0053 U	0.0063 U	0.0056 U	0.0054 U	0.0056 U	0.0069 U	0.0062 U	0.0056 U	0.0065 U	0.0060 UJ	0.0053 U	0.0053 U
Total 1,3-Dichloropropenes	mg/kg	NA	NA	NA	NA	0.0054 U	0.0053 U	0.0063 U	0.0056 U	0.0054 U	0.0056 U	0.0069 U	0.0062 U	0.0056 U	0.0065 U	0.0060 U	0.0053 U	0.0053 U
Total Xylenes	mg/kg	1.0	0.0070	6.3	0.0010 U	0.0054 U	0.0053 U	0.0063 U	0.0056 UJ	0.0054 U	0.0056 U	0.0069 U	0.0062 U	0.011	0.0089 J	0.072 J	0.0034 J	0.0053 U

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		SB-338	SB-338	SB-339	SB-340	SB-341	SB-342	SB-342	SB-343	SB-344	SB-345	SB-346	SB-347	SB-348	SB-349	SB-350	SB-351	SB-352
Sample Depth (ft bgs):		2 - 4	6 - 8	2 - 4	2 - 4	2 - 4	2 - 4	4 - 6	2 - 4	2 - 4	2 - 4	2 - 4	2 - 4	2 - 4	2 - 4	4 - 6	0 - 2	0 - 2
Date Collected:	Units	06/26/95	06/26/95	06/26/95	06/26/95	06/26/95	06/26/95	06/26/95	06/26/95	06/26/95	06/27/95	06/27/95	06/27/95	06/27/95	06/27/95	06/27/95	06/27/95	06/28/95
Volatile Organics																		
1,1,1,2-Tetrachloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	mg/kg	0.0055 U	0.015 U	0.0053 U [0.0053 U]	0.0054 U	0.0072 U	0.0053 U	0.0054 U	0.0053 U	0.0061 U	0.0054 U	0.0054 U	0.0053 U	0.0057 U	0.0059 U	0.0055 U	0.0056 U	0.0056 U
1,1,2,2-Tetrachloroethane	mg/kg	0.0055 U	0.015 U	0.0053 U [0.0053 U]	0.0054 U	0.0072 U	0.0053 U	0.0054 U	0.0053 U	0.0061 U	0.0054 U	0.0054 U	0.0053 U	0.0057 U	0.0059 U	0.0055 U	0.0056 U	0.0056 U
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	mg/kg	0.0055 U	0.015 U	0.0053 U [0.0053 U]	0.0054 U	0.0072 U	0.0053 U	0.0054 U	0.0053 U	0.0061 U	0.0054 U	0.0054 U	0.0053 U	0.0057 U	0.0059 U	0.0055 U	0.0056 U	0.0056 U
1,1-Dichloroethane	mg/kg	0.0055 U	0.015 U	0.0053 U [0.0053 U]	0.0054 U	0.0072 U	0.0053 U	0.0054 U	0.0053 U	0.0061 U	0.0054 U	0.0054 U	0.0053 U	0.0057 U	0.0059 U	0.0055 U	0.0056 U	0.0056 U
1,1-Dichloroethene	mg/kg	0.0055 U	0.015 U	0.0053 U [0.0053 U]	0.0054 U	0.0072 U	0.0053 U	0.0054 U	0.0053 U	0.0061 U	0.0054 U	0.0054 U	0.0053 U	0.0057 U	0.0059 U	0.0055 U	0.0056 U	0.0056 U
1,2,3-Trichloropropane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	0.0055 U	0.015 U	0.0053 U [0.0053 U]	0.0054 U	0.0072 U	0.0053 U	0.0054 U	0.0053 U	0.0061 U	0.0054 U	0.0054 U	0.0053 U	0.0057 U	0.0059 U	0.0055 U	0.0056 U	0.0056 U
1,2-Dichloroethane	mg/kg	0.0055 U	0.015 U	0.0053 U [0.0053 U]	0.0054 U	0.0072 U	0.0053 U	0.0054 U	0.0053 U	0.0061 U	0.0054 U	0.0054 U	0.0053 U	0.0057 U	0.0059 U	0.0055 U	0.0056 U	0.0056 U
1,2-Dichloroethene (total)	mg/kg	0.0055 U	0.015 U	0.0053 U [0.0053 U]	0.0054 U	0.0072 U	0.0053 U	0.0054 U	0.0053 U	0.0061 U	0.0054 U	0.0054 U	0.0053 U	0.0057 U	0.0059 U	0.0055 U	0.0056 U	0.0056 U
1,2-Dichloropropane	mg/kg	0.0055 U	0.015 U	0.0053 U [0.0053 U]	0.0054 U	0.0072 U	0.0053 U	0.0054 U	0.0053 U	0.0061 U	0.0054 U	0.0054 U	0.0053 U	0.0057 U	0.0059 U	0.0055 U	0.0056 U	0.0056 U
1,3-Dichlorobenzene	mg/kg	0.0055 U	0.015 U	0.0053 U [0.0053 U]	0.0054 U	0.0072 U	0.0053 U	0.0054 U	0.0053 U	0.0061 U	0.0054 U	0.0054 U	0.0053 U	0.0057 U	0.0059 U	0.0055 U	0.0056 U	0.0056 U
1,4-Dichlorobenzene	mg/kg	0.0055 U	0.015 U	0.0053 U [0.0053 U]	0.0054 U	0.0072 U	0.0053 U	0.0054 U	0.0053 U	0.0061 U	0.0054 U	0.0054 U	0.0053 U	0.0057 U	0.0059 U	0.0055 U	0.0056 U	0.0056 U
1,4-Dioxane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	mg/kg	0.055 U	0.010 J	0.052 J [0.038 J]	0.0012 J	0.020 J	0.0091 J	0.016 J	0.0014 J	0.014 J	0.0022 J	0.0015 J	0.029 J	0.011 J	0.059 U	0.021 J	0.056 U	0.0036 J
2-Chloro-1,3-butadiene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	mg/kg	0.055 U	0.15 U	0.053 U [0.053 U]	0.054 U	0.072 U	0.053 U	0.054 U	0.053 U	0.061 U	0.054 U	0.054 U	0.053 U	0.057 U	0.059 U	0.055 U	0.056 U	0.056 U
3-Chloropropene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	mg/kg	0.055 U	0.15 U	0.053 U [0.053 U]	0.054 U	0.072 U	0.053 U	0.054 U	0.053 U	0.061 U	0.054 U	0.054 U	0.053 U	0.057 U	0.059 U	0.055 U	0.056 U	0.056 U
Acetone	mg/kg	0.0065 J	0.042 J	0.24 [0.22]	0.0090 J	0.097	0.074	0.12	0.018 J	0.084	0.010 J	0.0033 J	0.23	0.11	0.084	0.11	0.0050 J	0.017 J
Acetonitrile	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	mg/kg	0.0055 U	0.015 U	0.0040 J [0.0042 J]	0.0022 J	0.035	0.0053 U	0.0087	0.0054	0.0034 J	0.0054 U	0.0031 J	0.0022 J	0.0014 J	0.0066	0.0044 J	0.0056 U	0.0017 J
Bromodichloromethane	mg/kg	0.0055 U	0.015 U	0.0053 U [0.0053 U]	0.0054 U	0.0072 U	0.0053 U	0.0054 U	0.0053 U	0.0061 U	0.0054 U	0.0054 U	0.0070 J	0.0057 U	0.0044 J	0.0036 J	0.0038 J	0.0056 U
Bromoform	mg/kg	0.0055 U	0.015 U	0.0053 U [0.0053 U]	0.0054 U	0.0072 U	0.0053 U	0.0054 U	0.0053 U	0.0061 U	0.0054 U	0.0054 U	0.0053 U	0.0057 U	0.0059 U	0.0055 U	0.0056 U	0.0056 U
Bromomethane	mg/kg	0.0055 U	0.015 U	0.0053 U [0.0053 U]	0.0054 U	0.0072 U	0.0053 U	0.0054 U	0.0053 U	0.0061 U	0.0054 U	0.0054 U	0.0053 U	0.0057 U	0.0059 U	0.0055 U	0.0056 U	0.0056 U
Carbon Disulfide	mg/kg	0.0055 U	0.0090 J	0.0075 J [0.0080]	0.0011 J	0.0038 J	0.0016 J	0.0035 J	0.0053 U	0.0061 U	0.0054 U	0.0054 U	0.0037 J	0.0057 U	0.012	0.0040 J	0.0056 U	0.0015 J
Carbon Tetrachloride	mg/kg	0.0055 U	0.015 U	0.0053 U [0.0053 U]	0.0054 U	0.0072 U	0.0053 U	0.0054 U	0.0053 U	0.0061 U	0.0054 U	0.0054 U	0.0053 U	0.0057 U	0.0059 U	0.0055 U	0.0056 U	0.0056 U
Chlorobenzene	mg/kg	0.0055 U	0.015 U	0.0053 U [0.0053 U]	0.0054 U	0.0072 U	0.0053 U	0.0054 U	0.0053 U	0.0061 U	0.0054 U	0.0054 U	0.0053 U	0.0057 U	0.0059 U	0.0055 U	0.0056 U	0.0056 U
Chloroethane	mg/kg	0.0055 U	0.015 U	0.0053 U [0.0053 U]	0.0054 U	0.0072 U	0.0053 U	0.0054 U	0.0053 U	0.0061 U	0.0054 U	0.0054 U	0.0053 U	0.0057 U	0.0059 U	0.0055 U	0.0056 U	0.0056 U
Chloroform	mg/kg	0.0055 U	0.015 U	0.0053 U [0.0053 U]	0.0054 U	0.0072 U	0.0053 U	0.0054 U	0.0053 U	0.0061 U	0.0054 U	0.0054 U	0.014	0.0057 U	0.012	0.014	0.0075	0.0056 U
Chloromethane	mg/kg	0.0055 U	0.015 U	0.0053 U [0.0053 U]	0.0054 U	0.0072 U	0.0053 U	0.0054 U	0.0053 U	0.0061 U	0.0054 U	0.0054 U	0.0053 U	0.0057 U	0.0059 U	0.0055 U	0.0056 U	0.0056 U
cis-1,2-Dichloroethene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	mg/kg	0.0055 U	0.015 U	0.0053 U [0.0053 U]	0.0054 U	0.0072 U	0.0053 U	0.0054 U	0.0053 U	0.0061 U	0.0054 U	0.0054 U	0.0053 U	0.0057 U	0.0059 U	0.0055 U	0.0056 U	0.0056 U
Cyclohexane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	mg/kg	0.0055 U	0.015 U	0.0053 U [0.0053 U]	0.0054 U	0.0072 U	0.0053 U	0.0054 U	0.0053 U	0.0061 U	0.0054 U	0.0054 U	0.0023 J	0.0057 U	0.0012 J	0.0055 U	0.0011 J	0.0056 U
Dibromomethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		SB-338	SB-338	SB-339	SB-340	SB-341	SB-342	SB-342	SB-343	SB-344	SB-345	SB-346	SB-347	SB-348	SB-349	SB-350	SB-351	SB-352
Sample Depth (ft bgs):		2 - 4	6 - 8	2 - 4	2 - 4	2 - 4	2 - 4	4 - 6	2 - 4	2 - 4	2 - 4	2 - 4	2 - 4	2 - 4	2 - 4	4 - 6	0 - 2	0 - 2
Date Collected:	Units	06/26/95	06/26/95	06/26/95	06/26/95	06/26/95	06/26/95	06/26/95	06/26/95	06/26/95	06/27/95	06/27/95	06/27/95	06/27/95	06/27/95	06/27/95	06/27/95	06/28/95
Volatile Organics																		
Ethylbenzene	mg/kg	0.0055 U	0.015 U	0.0027 J [0.0034 J]	0.0029 J	0.0049 J	0.0053 U	0.0092	0.0038 J	0.0025 J	0.0054 U	0.0024 J	0.0019 J	0.0057 U	0.0059	0.0026 J	0.0056 U	0.0056 U
Iodomethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isobutanol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	mg/kg	0.0027 J	0.0039 J	0.0034 J [0.0033 J]	0.0025 J	0.0088	0.0013 J	0.0044 J	0.0038 J	0.0035 J	0.0017 J	0.0025 J	0.0045 J	0.0029 J	0.0058 J	0.0059	0.0012 J	0.0019 J
Propionitrile	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	mg/kg	0.0055 U	0.015 U	0.0014 J [0.0053 U]	0.0054 U	0.0072 U	0.0053 U	0.0054 U	0.0053 U	0.0061 U	0.0054 U	0.0054 U	0.0053 U	0.0057 U	0.0059 U	0.0055 U	0.0056 U	0.0056 U
Tetrachloroethene	mg/kg	0.0055 U	0.015 U	0.0053 U [0.0053 U]	0.0054 U	0.0072 U	0.0053 U	0.0054 U	0.0053 U	0.0061 U	0.0054 U	0.0054 U	0.0053 U	0.0057 U	0.0059 U	0.0055 U	0.010	0.0016 J
Toluene	mg/kg	0.053	0.040	0.11 [0.19]	0.12	0.059	0.019	0.19	0.28	0.18	0.17	0.17	0.078	0.040	0.21	0.12	0.018	0.048
trans-1,2-Dichloroethene	mg/kg	0.0055 U	0.015 U	0.0053 U [0.0053 U]	0.0054 U	0.0072 U	0.0053 U	0.0054 U	0.0053 U	0.0061 U	0.0054 U	0.0054 U	0.0053 U	0.0057 U	0.0059 U	0.0055 U	0.0056 U	0.0056 U
trans-1,3-Dichloropropene	mg/kg	0.0055 U	0.015 U	0.0053 U [0.0053 U]	0.0054 U	0.0072 U	0.0053 U	0.0054 U	0.0053 U	0.0061 U	0.0054 U	0.0054 U	0.0053 U	0.0057 U	0.0059 U	0.0055 U	0.0056 U	0.0056 U
trans-1,4-Dichloro-2-butene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	mg/kg	0.0055 U	0.015 U	0.0053 U [0.0053 U]	0.0054 U	0.0072 U	0.0053 U	0.0054 U	0.0053 U	0.0061 U	0.0054 U	0.0054 U	0.0053 U	0.0057 U	0.0059 U	0.0055 U	0.055	0.0056 U
Trichlorofluoromethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Acetate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	mg/kg	0.0055 U	0.015 U	0.0053 U [0.0053 U]	0.0054 U	0.0072 U	0.0053 U	0.0054 U	0.0053 U	0.0061 U	0.0054 U	0.0054 U	0.0053 U	0.0057 U	0.0059 U	0.0055 U	0.0056 U	0.0056 U
Total 1,3-Dichloropropenes	mg/kg	0.0055 U	0.015 U	0.0053 U [0.0053 U]	0.0054 U	0.0072 U	0.0053 U	0.0054 U	0.0053 U	0.0061 U	0.0054 U	0.0054 U	0.0053 U	0.0057 U	0.0059 U	0.0055 U	0.0056 U	0.0056 U
Total Xylenes	mg/kg	0.0021 J	0.0075 J	0.0074 [0.012]	0.0095	0.0068 J	0.0028 J	0.051	0.014	0.0098	0.0052 J	0.0082	0.011 U	0.0023 J	0.025	0.014	0.0018 J	0.0020 J

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		SB-353	SB-354	SB-355	SB-362	SB-362	SB-362	SB-363	SB-363	SB-363	SB-389	SB-390	SB-391	SB-392	SB-393	SB-394	SB-395	SB-396
Sample Depth (ft bgs):		0 - 2	0 - 2	2 - 4	0 - 2	4 - 6	8 - 10	0 - 2	4 - 6	8 - 10	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5
Date Collected:	Units	06/28/95	06/28/95	06/28/95	09/28/95	09/28/95	09/28/95	09/28/95	09/28/95	09/28/95	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00
Volatile Organics																		
1,1,1,2-Tetrachloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	mg/kg	0.0055 U	0.0053 U	0.0055 U	0.0059 U	0.011 U	0.031 U	0.0056 U	0.0055 U	0.0061 U	0.0058 U	0.0087 U	0.0071 U	0.0068 U	0.0067 U	0.0067 U	0.0067 U	0.015 U
1,1,2,2-Tetrachloroethane	mg/kg	0.0055 U	0.0053 U	0.0055 U	0.0059 UJ	0.011 U	0.031 U	0.0056 UJ	0.0055 U	0.0061 U	0.0058 U	0.0087 U	0.0071 U	0.0068 U	0.0067 U	0.0067 U	0.0067 U	0.015 U
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	mg/kg	0.0055 U	0.0053 U	0.0055 U	0.0059 U	0.011 U	0.031 U	0.0056 U	0.0055 U	0.0061 U	R	0.0087 UJ	0.0071 U	0.0068 U	0.0067 U	0.0067 U	0.0067 U	R
1,1-Dichloroethane	mg/kg	0.0055 U	0.0053 U	0.0055 U	0.0059 U	0.011 U	0.031 U	0.0056 U	0.0055 U	0.0061 U	0.0058 U	0.0087 U	0.0071 U	0.0068 U	0.0039 J	0.0067 U	0.0067 U	0.015 U
1,1-Dichloroethene	mg/kg	0.0055 U	0.0053 U	0.0055 U	0.0059 U	0.011 U	0.031 U	0.0056 U	0.0055 U	0.0061 U	0.0058 U	0.0087 U	0.0071 U	0.0068 U	0.0067 U	0.0067 U	0.0067 U	0.015 U
1,2,3-Trichloropropane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	0.0024 J	0.0053 U	0.0055 U	0.0059 U	0.011 U	0.031 U	0.0056 U	0.0055 U	0.0061 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	mg/kg	0.0055 U	0.0053 U	0.0055 U	0.0059 U	0.011 U	0.031 U	0.0056 U	0.0055 U	0.0061 U	0.0058 U	0.0087 U	0.0071 U	0.0068 U	0.0067 U	0.0067 U	0.0067 U	0.015 U
1,2-Dichloroethene (total)	mg/kg	0.0055 U	0.0053 U	0.0055 U	0.0059 U	0.011 U	0.031 U	0.073 J	0.0049 J	0.0061 U	0.0058 U	0.0087 U	0.0071 U	0.0068 U	0.031	0.0067 U	0.0067 U	0.015 U
1,2-Dichloropropane	mg/kg	0.0055 U	0.0053 U	0.0055 U	0.0059 U	0.011 U	0.031 U	0.0056 U	0.0055 U	0.0061 U	0.0058 U	0.0087 U	0.0071 U	0.0068 U	0.0067 U	0.0067 U	0.0067 U	0.015 U
1,3-Dichlorobenzene	mg/kg	0.0055 U	0.0053 U	0.0055 U	0.0059 U	0.011 U	0.031 U	0.0056 U	0.0055 U	0.0061 U	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	0.0055 U	0.0053 U	0.0055 U	0.0059 U	0.011 U	0.031 U	0.0056 U	0.0055 U	0.0061 U	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dioxane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	mg/kg	0.022 J	0.0037 J	0.0015 J	0.059 U	0.036 J	0.080 J	0.0034 J	0.055 U	0.061 U	0.023 U	0.035 U	0.028 U	0.027 U	0.027 U	0.027 U	0.027 U	0.061 U
2-Chloro-1,3-butadiene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	mg/kg	0.055 U	0.053 U	0.055 U	0.0033 J	0.11 U	0.31 U	0.056 UJ	0.055 U	0.061 U	R	0.035 UJ	0.028 U	0.027 U	0.027 U	0.027 U	0.027 U	R
3-Chloropropene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	mg/kg	0.055 U	0.053 U	0.055 U	0.059 UJ	0.11 U	0.31 U	0.056 UJ	0.055 U	0.061 U	0.023 U	0.035 U	0.028 U	0.027 U	0.027 U	0.027 U	0.027 U	0.061 U
Acetone	mg/kg	0.12	0.013 J	0.0092 J	0.059 U	0.11 U	0.30 J	0.10 J	0.038 J	0.061 U	0.023 U	0.035 U	0.028 U	0.027 U	0.027 U	0.027 U	0.027 U	0.061 U
Acetonitrile	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	mg/kg	0.0033 J	0.0064	0.0028 J	0.0059 U	0.011 U	0.031 U	0.0026 J	0.0055 U	0.0075	0.0058 U	0.0087 U	0.0071 U	0.0068 U	0.0067 U	0.0067 U	0.0067 U	0.015 U
Bromodichloromethane	mg/kg	0.0055 U	0.0053 U	0.0055 U	0.0059 U	0.011 U	0.031 U	0.0056 U	0.0055 U	0.0061 U	0.0058 U	0.0087 U	0.0071 U	0.0068 U	0.0067 U	0.0067 U	0.0067 U	0.015 U
Bromoform	mg/kg	0.0055 U	0.0053 U	0.0055 U	0.0059 U	0.011 U	0.031 U	0.0056 U	0.0055 U	0.0061 U	R	0.0087 UJ	0.0071 U	0.0068 U	0.0067 U	0.0067 U	0.0067 U	R
Bromomethane	mg/kg	0.0055 U	0.0053 U	0.0055 U	0.0059 U	0.011 U	0.031 U	0.0056 U	0.0055 U	0.0061 U	0.012 U	0.017 U	0.014 U	0.014 U	0.013 U	0.013 U	0.013 U	0.031 U
Carbon Disulfide	mg/kg	0.0028 J	0.0053 U	0.0055 U	0.0059 U	0.0056 J	0.031 U	0.0043 J	0.0055 U	0.0061 U	0.0058 U	0.0087 U	0.0071 U	0.0068 U	0.0067 U	0.0067 U	0.0067 U	0.015 U
Carbon Tetrachloride	mg/kg	0.0055 U	0.0053 U	0.0055 U	0.0059 U	0.011 U	0.031 U	0.0056 U	0.0055 U	0.0061 U	0.0058 U	0.0087 U	0.0071 U	0.0068 U	0.0067 U	0.0067 U	0.0067 U	0.015 U
Chlorobenzene	mg/kg	0.0055 U	0.0053 U	0.0055 U	0.0059 UJ	0.011 U	0.031 U	0.0056 UJ	0.0055 U	0.0061 U	R	0.0087 UJ	0.0071 U	0.0068 U	0.0067 U	0.0067 U	0.0067 U	R
Chloroethane	mg/kg	0.0055 U	0.0053 U	0.0055 U	0.0059 U	0.011 U	0.031 U	0.0056 U	0.0055 U	0.0061 U	0.012 U	0.017 U	0.014 U	0.014 U	0.013 U	0.013 U	0.013 U	0.031 U
Chloroform	mg/kg	0.0055 U	0.0053 U	0.0055 U	0.0059 U	0.011 U	0.031 U	0.0056 U	0.0055 U	0.0061 U	0.0058 U	0.0087 U	0.0071 U	0.0068 U	0.0067 U	0.0067 U	0.0067 U	0.015 U
Chloromethane	mg/kg	0.0055 U	0.0053 U	0.0055 U	0.0059 U	0.011 U	0.031 U	0.0056 U	0.0055 U	0.0061 U	0.012 U	0.017 U	0.014 U	0.014 U	0.013 U	0.013 U	0.013 U	0.031 U
cis-1,2-Dichloroethene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	mg/kg	0.0055 U	0.0053 U	0.0055 U	0.0059 U	0.011 U	0.031 U	0.0056 U	0.0055 U	0.0061 U	0.0058 U	0.0087 U	0.0071 U	0.0068 U	0.0067 U	0.0067 U	0.0067 U	0.015 U
Cyclohexane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	mg/kg	0.0055 U	0.0053 U	0.0055 U	0.0059 U	0.011 U	0.031 U	0.0056 U	0.0055 U	0.0061 U	0.0058 U	0.0087 U	0.0071 U	0.0068 U	0.0067 U	0.0067 U	0.0067 U	0.015 U
Dibromomethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		SB-353	SB-354	SB-355	SB-362	SB-362	SB-362	SB-363	SB-363	SB-363	SB-389	SB-390	SB-391	SB-392	SB-393	SB-394	SB-395	SB-396
Sample Depth (ft bgs):		0 - 2	0 - 2	2 - 4	0 - 2	4 - 6	8 - 10	0 - 2	4 - 6	8 - 10	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5
Date Collected:	Units	06/28/95	06/28/95	06/28/95	09/28/95	09/28/95	09/28/95	09/28/95	09/28/95	09/28/95	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00
Volatile Organics																		
Ethylbenzene	mg/kg	0.0047 J	0.0037 J	0.0013 J	0.0059 UJ	0.011 U	0.031 U	0.0047 J	0.0045 J	0.014	R	0.0087 UJ	0.0071 U	0.0068 U	0.0067 U	0.0067 U	0.0067 U	R
Iodomethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isobutanol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	mg/kg	0.0022 J	0.0017 J	0.0017 J	0.0031 J	0.011 U	0.031 U	0.0056 U	0.0055 U	0.0061 U	0.086 J	0.020	0.0071 U	0.0068 U	0.078	0.0067 U	0.0067 U	0.30 J
Propionitrile	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	mg/kg	0.0055 U	0.0053 U	0.0055 U	0.0059 UJ	0.011 U	0.031 U	0.0056 UJ	0.0055 U	0.0093	R	0.0087 UJ	0.0071 U	0.0068 U	0.0067 U	0.0067 U	0.0067 U	R
Tetrachloroethene	mg/kg	0.0055 U	0.0053 U	0.0055 U	0.0059 UJ	0.011 U	0.031 U	0.0056 UJ	0.0055 U	0.0061 U	R	0.0087 UJ	0.0071 U	0.0068 U	0.0067 U	0.0067 U	0.0067 U	R
Toluene	mg/kg	0.20	0.29	0.11	0.0059 UJ	0.019 J	0.017 J	0.074 J	0.083 J	0.042	R	0.0087 UJ	0.0071 U	0.0068 U	0.0067 U	0.0067 U	0.0067 U	R
trans-1,2-Dichloroethene	mg/kg	0.0055 U	0.0053 U	0.0055 U	0.0059 U	0.011 U	0.031 U	0.0056 U	0.0055 U	0.0061 U	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	mg/kg	0.0055 U	0.0053 U	0.0055 U	0.0059 U	0.011 U	0.031 U	0.0056 U	0.0055 U	0.0061 U	R	0.0087 UJ	0.0071 U	0.0068 U	0.0067 U	0.0067 U	0.0067 U	R
trans-1,4-Dichloro-2-butene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	mg/kg	0.0055 U	0.0053 U	0.0055 U	0.0059 U	0.011 U	0.031 U	0.0090 J	0.0055 U	0.0061 U	0.0058 U	0.0087 U	0.0071 U	0.0068 U	0.0039 J	0.0067 U	0.0067 U	0.015 U
Trichlorofluoromethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Acetate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	mg/kg	0.0055 U	0.0053 U	0.0055 U	0.0059 U	0.011 U	0.031 U	0.0056 U	0.0055 U	0.0061 U	0.012 U	0.017 U	0.014 U	0.014 U	0.013 U	0.013 U	0.013 U	0.031 U
Total 1,3-Dichloropropenes	mg/kg	0.0055 U	0.0053 U	0.0055 U	0.0059 U	0.011 U	0.031 U	0.0056 U	0.0055 U	0.0061 U	0.0058 U	0.0087 U	0.0071 U	0.0068 U	0.0067 U	0.0067 U	0.0067 U	0.015 U
Total Xylenes	mg/kg	0.013	0.013	0.0045 J	0.0059 UJ	0.024 J	0.097	0.017 J	0.020 J	0.033	R	0.0087 UJ	0.0071 U	0.0068 U	0.0067 U	0.0067 U	0.0067 U	R

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		SB-397	SB-398	SB-399	SB-400	SB-406	SB-412	SB-418	TP1	TP1	TP2	TP2	TP-2	TP3	TP3	TP4	TP4
Sample Depth (ft bgs):		0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 4	4 - 8	0 - 4	4 - 8	8 - 8.5	0 - 4	4 - 8	0 - 4	4 - 8
Date Collected:	Units	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	05/22/98	05/22/98	05/22/98	05/22/98	03/23/95	05/22/98	05/22/98	05/22/98	05/22/98
Volatile Organics																	
1,1,1,2-Tetrachloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	mg/kg	0.0070 U	0.0061 U	0.0062 U	0.0080 U	0.0054 U	0.0088 U	0.0066 U [0.0069 U]	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0063 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U
1,1,2,2-Tetrachloroethane	mg/kg	0.0070 U	0.0061 U	0.0062 U	0.0080 U	0.0054 U	0.0088 U	0.0066 U [0.0069 U]	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0063 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	mg/kg	0.0070 U	0.0061 U	0.0062 U	0.0080 U	R	0.0088 U	0.0066 U [0.0069 U]	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0063 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U
1,1-Dichloroethane	mg/kg	0.0070 U	0.0061 U	0.0062 U	0.0080 U	0.0054 U	0.0088 U	0.0066 U [0.0069 U]	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0063 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U
1,1-Dichloroethene	mg/kg	0.0070 U	0.0061 U	0.0062 U	0.0080 U	0.0054 U	0.0088 U	0.0066 U [0.0069 U]	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0063 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U
1,2,3-Trichloropropane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0063 U	NA	NA	NA	NA
1,2-Dichloroethane	mg/kg	0.0070 U	0.0061 U	0.0062 U	0.0080 U	0.0054 U	0.0088 U	0.0066 U [0.0069 U]	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0063 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U
1,2-Dichloroethene (total)	mg/kg	0.0070 U	0.0061 U	0.0062 U	0.0080 U	0.0054 U	0.0088 U	0.0066 U [0.0069 U]	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0063 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U
1,2-Dichloropropane	mg/kg	0.0070 U	0.0061 U	0.0062 U	0.0080 U	0.0054 U	0.0088 U	0.0066 U [0.0069 U]	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0063 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U
1,3-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0063 U	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0063 U	NA	NA	NA	NA
1,4-Dioxane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	mg/kg	0.028 U	0.024 U	0.025 U	0.032 U	0.022 U	0.035 U	0.026 U [0.028 U]	0.020 U	0.020 U	0.020 U	0.020 U	0.063 UJ	0.020 U	0.020 U	0.020 U	0.020 U
2-Chloro-1,3-butadiene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	mg/kg	0.028 U	0.024 U	0.025 U	0.032 U	R	0.035 U	0.026 U [0.028 U]	0.020 U	0.020 U	0.020 U	0.020 U	0.063 U	0.020 U	0.020 U	0.020 U	0.020 U
3-Chloropropene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	mg/kg	0.028 U	0.024 U	0.025 U	0.032 U	0.022 U	0.035 U	0.026 U [0.028 U]	0.020 U	0.020 U	0.020 U	0.020 U	0.063 U	0.020 U	0.020 U	0.020 U	0.020 U
Acetone	mg/kg	0.028 U	0.024 U	0.025 U	0.032 U	0.022 U	0.035 U	0.026 U [0.028 U]	0.020 U	0.020 U	0.020 U	0.020 U	0.011 UJ	0.020 U	0.020 U	0.020 U	0.020 U
Acetonitrile	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	mg/kg	0.0070 U	0.0061 U	0.0062 U	0.0080 U	0.0054 U	0.0088 U	0.0066 U [0.0069 U]	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0063 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U
Bromodichloromethane	mg/kg	0.0070 U	0.0061 U	0.0062 U	0.0080 U	0.0054 U	0.0088 U	0.0066 U [0.0069 U]	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0063 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U
Bromoform	mg/kg	0.0070 U	0.0061 U	0.0062 U	0.0080 U	R	0.0088 U	0.0066 U [0.0069 U]	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0063 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U
Bromomethane	mg/kg	0.014 U	0.012 U	0.012 U	0.016 U	0.011 U	0.018 U	0.013 U [0.014 U]	0.010 U	0.010 U	0.010 U	0.010 U	0.0063 U	0.010 U	0.010 U	0.010 U	0.010 U
Carbon Disulfide	mg/kg	0.0070 U	0.0061 U	0.0062 U	0.0080 U	0.0054 U	0.0088 U	0.0066 U [0.0069 U]	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0063 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U
Carbon Tetrachloride	mg/kg	0.0070 U	0.0061 U	0.0062 U	0.0080 U	0.0054 U	0.0088 U	0.0066 U [0.0069 U]	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0063 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U
Chlorobenzene	mg/kg	0.0070 U	0.0061 U	0.0062 U	0.0080 U	R	0.0088 U	0.0066 U [0.0069 U]	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0063 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U
Chloroethane	mg/kg	0.014 U	0.012 U	0.012 U	0.016 U	0.011 U	0.018 U	0.013 U [0.014 U]	0.010 U	0.010 U	0.010 U	0.010 U	0.0063 U	0.010 U	0.010 U	0.010 U	0.010 U
Chloroform	mg/kg	0.0070 U	0.0061 U	0.0062 U	0.0080 U	0.0054 U	0.0088 U	0.0066 U [0.0069 U]	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0063 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U
Chloromethane	mg/kg	0.014 U	0.012 U	0.012 U	0.016 U	0.011 U	0.018 U	0.013 U [0.014 U]	0.010 U	0.010 U	0.010 U	0.010 U	0.0063 UJ	0.010 U	0.010 U	0.010 U	0.010 U
cis-1,2-Dichloroethene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0063 U	NA	NA	NA	NA
cis-1,3-Dichloropropene	mg/kg	0.0070 U	0.0061 U	0.0062 U	0.0080 U	0.0054 U	0.0088 U	0.0066 U [0.0069 U]	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0063 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U
Cyclohexane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	mg/kg	0.0070 U	0.0061 U	0.0062 U	0.0080 U	0.0054 U	0.0088 U	0.0066 U [0.0069 U]	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0063 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U
Dibromomethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		SB-397	SB-398	SB-399	SB-400	SB-406	SB-412	SB-418	TP1	TP1	TP2	TP2	TP-2	TP3	TP3	TP4	TP4
Sample Depth (ft bgs):		0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 4	4 - 8	0 - 4	4 - 8	8 - 8.5	0 - 4	4 - 8	0 - 4	4 - 8
Date Collected:	Units	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	05/22/98	05/22/98	05/22/98	05/22/98	03/23/95	05/22/98	05/22/98	05/22/98	05/22/98
Volatile Organics																	
Ethylbenzene	mg/kg	0.0070 U	0.0061 U	0.0062 U	0.0080 U	R	0.0088 U	0.0066 U [0.0069 U]	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0039 J	0.0050 U	0.0050 U	0.0050 U	0.0050 U
Iodomethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isobutanol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	mg/kg	0.0047 J	0.022	0.0027 J	0.011	0.081 J	0.0036 J	0.0066 U [0.0069 U]	0.019	0.026	0.031	0.027	0.016	0.0077	0.028	0.024	0.049
Propionitrile	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	mg/kg	0.0070 U	0.0061 U	0.0062 U	0.0080 U	R	0.0088 U	0.0066 U [0.0069 U]	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0063 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U
Tetrachloroethene	mg/kg	0.0070 U	0.0061 U	0.0062 U	0.0080 U	R	0.0088 U	0.0066 U [0.0069 U]	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0063 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U
Toluene	mg/kg	0.0070 U	0.0061 U	0.0062 U	0.0080 U	R	0.0088 U	0.0066 U [0.0069 U]	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0063 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U
trans-1,2-Dichloroethene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0063 U	NA	NA	NA	NA
trans-1,3-Dichloropropene	mg/kg	0.0070 U	0.0061 U	0.0062 U	0.0080 U	R	0.0088 U	0.0066 U [0.0069 U]	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0063 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U
trans-1,4-Dichloro-2-butene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	mg/kg	0.0070 U	0.0061 U	0.0062 U	0.0080 U	0.0054 U	0.0088 U	0.0066 U [0.0069 U]	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0063 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U
Trichlorofluoromethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Acetate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	mg/kg	0.014 U	0.012 U	0.012 U	0.016 U	0.011 U	0.018 U	0.013 U [0.014 U]	0.010 U	0.010 U	0.010 U	0.010 U	0.0063 U	0.010 U	0.010 U	0.010 U	0.010 U
Total 1,3-Dichloropropenes	mg/kg	0.0070 U	0.0061 U	0.0062 U	0.0080 U	0.0054 U	0.0088 U	0.0066 U [0.0069 U]	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0063 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U
Total Xylenes	mg/kg	0.0070 U	0.0061 U	0.0062 U	0.0080 U	R	0.0088 U	0.0066 U [0.0069 U]	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.014	0.0050 U	0.0050 U	0.0050 U	0.0050 U

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		TP5	TP5	TP6	TP6	TP-6	TP7	TP-12	US-1	US-2	US-3	US-4	US-5	US-6	US-7	US-8	VE-1	VE-2
Sample Depth (ft bgs):		0 - 4	4 - 8	0 - 4	4 - 8	8 - 8.5	0 - 4	7.8 - 8	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0.75 - 1.58	0.92 - 1.67
Date Collected:	Units	05/22/98	05/22/98	05/22/98	05/22/98	03/22/95	05/22/98	03/23/95	06/12/95	06/12/95	06/12/95	06/12/95	06/12/95	06/12/95	06/12/95	06/12/95	08/10/01	08/10/01
Volatile Organics																		
1,1,1,2-Tetrachloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	mg/kg	0.0050 U	0.0050 U	0.0050 U	0.0050 U	38 U	0.0050 U	0.74 U	0.0063 U	0.0054 U	0.0053 U	0.0053 U	0.0052 U	0.0052 U	0.0051 U	0.0051 U	0.0060 U	0.0060 U
1,1,2,2-Tetrachloroethane	mg/kg	0.0050 U	0.0050 U	0.0050 U	0.0050 U	38 UJ	0.0050 U	0.74 UJ	0.0063 U	0.0054 U	0.0053 U	0.0053 U	0.0052 U	0.0052 U	0.0051 U	0.0051 U	0.0060 U	0.0060 U
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0060 U	0.0060 U
1,1,2-Trichloroethane	mg/kg	0.0050 U	0.0050 U	0.0050 U	0.0050 U	38 U	0.0050 U	0.74 U	0.0063 U	0.0054 U	0.0053 U	0.0053 U	0.0052 U	0.0052 U	0.0051 U	0.0051 U	0.0060 UJ	0.0060 U
1,1-Dichloroethane	mg/kg	0.0050 U	0.0050 U	0.0050 U	0.0050 U	38 U	0.0050 U	0.74 U	0.0063 U	0.0054 U	0.0053 U	0.0053 U	0.0052 U	0.0052 U	0.0051 U	0.0051 U	0.0060 U	0.0060 U
1,1-Dichloroethene	mg/kg	0.0050 U	0.0050 U	0.0050 U	0.0050 U	38 U	0.0050 U	0.74 U	0.0063 U	0.0054 U	0.0053 U	0.0053 U	0.0052 U	0.0052 U	0.0051 U	0.0051 U	0.0060 U	0.0060 U
1,2,3-Trichloropropane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0060 U	0.0060 U
1,2,4-Trimethylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0060 U	0.0060 U
1,2-Dibromoethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0060 UJ	0.0060 U
1,2-Dichlorobenzene	mg/kg	NA	NA	NA	NA	38 U	NA	0.74 U	0.0063 U	0.0054 U	0.0053 U	0.0053 U	0.0052 U	0.0052 U	0.0051 U	0.0051 U	0.0060 U	0.0060 U
1,2-Dichloroethane	mg/kg	0.0050 U	0.0050 U	0.0050 U	0.0050 U	38 U	0.0050 U	0.74 U	0.0063 U	0.0054 U	0.0053 U	0.0053 U	0.0052 U	0.0052 U	0.0051 U	0.0051 U	0.0060 U	0.0060 U
1,2-Dichloroethene (total)	mg/kg	0.0050 U	0.0050 U	0.0050 U	0.0050 U	38 U	0.0050 U	0.74 U	0.0063 U	0.0054 U	0.0053 U	0.0053 U	0.0052 U	0.0052 U	0.0051 U	0.0051 U	NA	NA
1,2-Dichloropropane	mg/kg	0.0050 U	0.0050 U	0.0050 U	0.0050 U	38 U	0.0050 U	0.74 U	0.0063 U	0.0054 U	0.0053 U	0.0053 U	0.0052 U	0.0052 U	0.0051 U	0.0051 U	0.0060 U	0.0060 U
1,3-Dichlorobenzene	mg/kg	NA	NA	NA	NA	38 U	NA	0.74 U	0.0063 U	0.0054 U	0.0053 U	0.0053 U	0.0052 U	0.0052 U	0.0051 U	0.0051 U	0.0060 U	0.0060 U
1,4-Dichlorobenzene	mg/kg	NA	NA	NA	NA	4.1 U	NA	0.74 U	0.0063 U	0.0054 U	0.0053 U	0.0053 U	0.0052 U	0.0052 U	0.0051 U	0.0051 U	0.0060 U	0.0060 U
1,4-Dioxane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	mg/kg	0.020 U	0.020 U	0.020 U	0.020 U	77 UJ	0.020 U	7.4 UJ	0.0094 J	0.010 J	0.0060 J	0.053 U	0.052 U	0.052 U	0.051 U	0.051 U	0.0060 U	0.0060 U
2-Chloro-1,3-butadiene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	mg/kg	0.020 U	0.020 U	0.020 U	0.020 U	380 UJ	0.020 U	7.4 UJ	0.063 U	0.054 U	0.053 U	0.053 U	0.052 U	0.052 U	0.051 U	0.051 U	0.0060 UJ	0.0060 U
3-Chloropropene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	mg/kg	0.020 U	0.020 U	0.020 U	0.020 U	380 UJ	0.020 U	7.4 UJ	0.063 U	0.054 U	0.053 U	0.053 U	0.052 U	0.052 U	0.051 U	0.051 U	0.0060 U	0.0060 U
Acetone	mg/kg	0.020 U	0.020 U	0.020 U	0.020 U	380 U	0.020 U	7.4 U	0.052 J	0.066 J	0.039 J	0.053 UJ	0.052 UJ	0.052 UJ	0.051 UJ	0.051 UJ	0.012 U	0.011 U
Acetonitrile	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	mg/kg	0.0050 U	0.0050 U	0.0050 U	0.0050 U	38 U	0.0050 U	0.74 U	0.0063 U	0.0054 U	0.0053 U	0.0053 U	0.0052 U	0.0052 U	0.0051 U	0.0051 U	0.0060 U	0.0060 U
Bromodichloromethane	mg/kg	0.0050 U	0.0050 U	0.0050 U	0.0050 U	38 U	0.0050 U	0.74 U	0.0063 U	0.0054 U	0.0053 U	0.0053 U	0.0052 U	0.0052 U	0.0051 U	0.0051 U	0.0060 U	0.0060 U
Bromoform	mg/kg	0.0050 U	0.0050 U	0.0050 U	0.0050 U	38 U	0.0050 U	0.74 U	0.0063 U	0.0054 U	0.0053 U	0.0053 U	0.0052 U	0.0052 U	0.0051 U	0.0051 U	0.0060 UJ	0.0060 U
Bromomethane	mg/kg	0.010 U	0.010 U	0.010 U	0.010 U	38 U	0.010 U	0.74 U	0.0063 U	0.0054 U	0.0053 U	0.0053 U	0.0052 U	0.0052 U	0.0051 U	0.0051 U	0.0060 U	0.0060 U
Carbon Disulfide	mg/kg	0.0050 U	0.0050 U	0.0050 U	0.0050 U	38 U	0.0050 U	0.74 U	0.0063 U	0.0054 U	0.0053 U	0.0053 U	0.0052 U	0.0052 U	0.0051 U	0.0051 U	0.0030 J	0.0060 U
Carbon Tetrachloride	mg/kg	0.0050 U	0.0050 U	0.0050 U	0.0050 U	38 U	0.0050 U	0.74 U	0.0063 U	0.0054 U	0.0053 U	0.0053 U	0.0052 U	0.0052 U	0.0051 U	0.0051 U	0.0060 U	0.0060 U
Chlorobenzene	mg/kg	0.0050 U	0.0050 U	0.0050 U	0.0050 U	38 U	0.0050 U	0.74 U	0.0063 U	0.0054 U	0.0053 U	0.0053 U	0.0052 U	0.0052 U	0.0051 U	0.0051 U	0.0060 UJ	0.0060 U
Chloroethane	mg/kg	0.010 U	0.010 U	0.010 U	0.010 U	38 U	0.010 U	0.74 U	0.0063 U	0.0054 U	0.0053 U	0.0053 UJ	0.0052 U	0.0052 UJ	0.0051 U	0.0051 U	0.0060 U	0.0060 U
Chloroform	mg/kg	0.0050 U	0.0050 U	0.0050 U	0.0050 U	38 U	0.0050 U	0.74 U	0.0063 U	0.0054 U	0.0053 U	0.0053 U	0.0052 U	0.0052 U	0.0051 U	0.0051 U	0.0060 U	0.0060 U
Chloromethane	mg/kg	0.010 U	0.010 U	0.010 U	0.010 U	38 U	0.010 U	0.74 U	0.0063 UJ	0.0054 UJ	0.0053 UJ	0.0053 UJ	0.0052 UJ	0.0052 UJ	0.0051 UJ	0.0051 U	0.0060 U	0.0060 U
cis-1,2-Dichloroethene	mg/kg	NA	NA	NA	NA	38 U	NA	0.74 U	NA	NA	NA	NA	NA	NA	NA	NA	0.0060 U	0.0060 U
cis-1,3-Dichloropropene	mg/kg	0.0050 U	0.0050 U	0.0050 U	0.0050 U	38 U	0.0050 U	0.74 U	0.0063 U	0.0054 U	0.0053 U	0.0053 U	0.0052 U	0.0052 U	0.0051 U	0.0051 U	0.0060 U	0.0060 U
Cyclohexane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0060 U	0.0060 U
Dibromochloromethane	mg/kg	0.0050 U	0.0050 U	0.0050 U	0.0050 U	38 U	0.0050 U	0.74 U	0.0063 U	0.0054 U	0.0053 U	0.0053 U	0.0052 U	0.0052 U	0.0051 U	0.0051 U	0.0060 UJ	0.0060 U
Dibromomethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0060 U	0.0060 U
Ethyl Methacrylate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		TP5	TP5	TP6	TP6	TP-6	TP7	TP-12	US-1	US-2	US-3	US-4	US-5	US-6	US-7	US-8	VE-1	VE-2
Sample Depth (ft bgs):		0 - 4	4 - 8	0 - 4	4 - 8	8 - 8.5	0 - 4	7.8 - 8	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0.75 - 1.58	0.92 - 1.67
Date Collected:	Units	05/22/98	05/22/98	05/22/98	05/22/98	03/22/95	05/22/98	03/23/95	06/12/95	06/12/95	06/12/95	06/12/95	06/12/95	06/12/95	06/12/95	06/12/95	08/10/01	08/10/01
Volatile Organics																		
Ethylbenzene	mg/kg	0.0050 U	0.0050 U	0.0050 U	0.0050 U	170	0.0050 U	0.74 U	0.0063 U	0.0054 U	0.0053 U	0.0053 U	0.0052 U	0.0052 U	0.0051 U	0.0051 U	0.016 J	0.0060 U
Iodomethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isobutanol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0010 J	0.0060 U
Methacrylonitrile	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0060 U	0.0060 U
Methyl cyclohexane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0020 J	0.0060 U
Methyl Methacrylate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0060 U	0.0060 U
Methylene Chloride	mg/kg	0.054	0.022	0.069	0.020	38 U	0.015	0.74 U	0.0039 U	0.0050 U	0.0054 U	0.014 UJ	0.011 UJ	0.010 U	0.015 UJ	0.0095 UJ	0.0060 UJ	0.0060 UJ
Propionitrile	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	mg/kg	0.0050 U	0.0050 U	0.0050 U	0.0050 U	38 U	0.0050 U	0.74 U	0.0063 U	0.0054 U	0.0053 U	0.0053 U	0.0052 U	0.0052 U	0.0051 U	0.0051 U	0.0060 UJ	0.0060 U
Tetrachloroethene	mg/kg	0.0050 U	0.0050 U	0.0050 U	0.0050 U	38 U	0.0050 U	0.74 U	0.0063 U	0.0054 U	0.0053 U	0.0053 U	0.0052 U	0.0052 U	0.0051 U	0.0051 U	0.0060 UJ	0.0060 U
Toluene	mg/kg	0.0050 U	0.0050 U	0.0050 U	0.0050 U	38 U	0.0050 U	0.74 U	0.017	0.018	0.011 U	0.0064 UJ	0.0088 UJ	0.0029 U	0.0090 UJ	0.016 J	0.038 J	0.0060 U
trans-1,2-Dichloroethene	mg/kg	NA	NA	NA	NA	38 U	NA	0.74 U	0.0063 U	0.0054 U	0.0053 U	0.0053 U	0.0052 U	0.0052 U	0.0051 U	0.0051 U	0.0060 U	0.0060 U
trans-1,3-Dichloropropene	mg/kg	0.0050 U	0.0050 U	0.0050 U	0.0050 U	38 U	0.0050 U	0.74 U	0.0063 U	0.0054 U	0.0053 U	0.0053 U	0.0052 U	0.0052 U	0.0051 U	0.0051 U	0.0060 UJ	0.0060 U
trans-1,4-Dichloro-2-butene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	mg/kg	0.0050 U	0.0050 U	0.0050 U	0.0050 U	38 U	0.0050 U	0.74 U	0.0063 U	0.0054 U	0.0053 U	0.0053 U	0.0052 U	0.0052 U	0.0051 U	0.0051 U	0.0060 U	0.0060 U
Trichlorofluoromethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0060 U	0.0060 U
Vinyl Acetate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	mg/kg	0.010 U	0.010 U	0.010 U	0.010 U	38 U	0.010 U	0.74 U	0.0063 U	0.0054 U	0.0053 U	0.0053 U	0.0052 U	0.0052 U	0.0051 U	0.0051 U	0.0060 U	0.0060 U
Total 1,3-Dichloropropenes	mg/kg	0.0050 U	0.0050 U	0.0050 U	0.0050 U	38 U	0.0050 U	0.74 U	0.0063 U	0.0054 U	0.0053 U	0.0053 U	0.0052 U	0.0052 U	0.0051 U	0.0051 U	0.0060 U	0.0060 U
Total Xylenes	mg/kg	0.0050 U	0.0050 U	0.0050 U	0.0050 U	1,300	0.0050 U	0.74 U	0.0063 U	0.0054 U	0.0053 U	0.0053 U	0.0052 U	0.0052 U	0.0051 U	0.0051 U	0.079 J	0.0060 U

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		WMB-1	WMB-2	WMB-3	WMB-4	WMB-5	WMB-6
Sample Depth (ft bgs):		3 - 3.5	3 - 3.5	5 - 5.5	0.5 - 1	0.5 - 1	4 - 4.5
Date Collected:	Units	01/22/97	01/22/97	01/22/97	01/22/97	01/22/97	01/22/97
Volatile Organics							
1,1,1,2-Tetrachloroethane	mg/kg	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	mg/kg	0.0059 U	0.0071 U	0.0061 U	0.0072 U	0.0069 U	0.0068 U
1,1,2,2-Tetrachloroethane	mg/kg	0.0059 U	0.0071 U	0.0061 U	0.0072 U	0.0069 U	0.0068 U
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	mg/kg	0.0059 U	0.0071 U	0.0061 U	0.0072 U	0.0069 U	0.0068 U
1,1-Dichloroethane	mg/kg	0.0059 U	0.0071 U	0.0061 U	0.0072 U	0.0069 U	0.0068 U
1,1-Dichloroethene	mg/kg	0.0059 U	0.0071 U	0.0061 U	0.0072 U	0.0069 U	0.0068 U
1,2,3-Trichloropropane	mg/kg	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	mg/kg	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	mg/kg	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	mg/kg	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	0.0059 U	0.0071 U	0.0061 U	0.0072 U	0.0069 U	0.0068 U
1,2-Dichloroethane	mg/kg	0.0059 U	0.0071 U	0.0061 U	0.0072 U	0.0069 U	0.0068 U
1,2-Dichloroethene (total)	mg/kg	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	mg/kg	0.0059 U	0.0071 U	0.0061 U	0.0072 U	0.0069 U	0.0068 U
1,3-Dichlorobenzene	mg/kg	0.0059 U	0.0071 U	0.0061 U	0.0072 U	0.0069 U	0.0068 U
1,4-Dichlorobenzene	mg/kg	0.0059 U	0.0071 U	0.0061 U	0.0072 U	0.0069 U	0.0068 U
1,4-Dioxane	mg/kg	NA	NA	NA	NA	NA	NA
2-Butanone	mg/kg	0.059 U	0.071 U	0.061 U	0.072 U	0.069 U	0.068 U
2-Chloro-1,3-butadiene	mg/kg	NA	NA	NA	NA	NA	NA
2-Hexanone	mg/kg	0.059 U	0.071 U	0.061 U	0.072 U	0.069 U	0.068 U
3-Chloropropene	mg/kg	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	mg/kg	0.059 U	0.071 U	0.061 U	0.072 U	0.069 U	0.068 U
Acetone	mg/kg	0.059 U	0.071 U	0.061 U	0.072 U	0.069 U	0.068 U
Acetonitrile	mg/kg	NA	NA	NA	NA	NA	NA
Acrolein	mg/kg	NA	NA	NA	NA	NA	NA
Acrylonitrile	mg/kg	NA	NA	NA	NA	NA	NA
Benzene	mg/kg	0.0059 U	0.0071 U	0.0061 U	0.0072 U	0.0069 U	0.0068 U
Bromodichloromethane	mg/kg	0.0059 U	0.0071 U	0.0061 U	0.0072 U	0.0069 U	0.0068 U
Bromoform	mg/kg	0.0059 U	0.0071 U	0.0061 U	0.0072 U	0.0069 U	0.0068 U
Bromomethane	mg/kg	0.0059 U	0.0071 U	0.0061 U	0.0072 U	0.0069 U	0.0068 U
Carbon Disulfide	mg/kg	0.0059 U	0.0071 U	0.0061 U	0.0072 U	0.0069 U	0.0068 U
Carbon Tetrachloride	mg/kg	0.0059 U	0.0071 U	0.0061 U	0.0072 U	0.0069 U	0.0068 U
Chlorobenzene	mg/kg	0.0059 U	0.0071 U	0.0061 U	0.0072 U	0.0069 U	0.0068 U
Chloroethane	mg/kg	0.0059 U	0.0071 U	0.0061 U	0.0072 U	0.0069 U	0.0068 U
Chloroform	mg/kg	0.0059 U	0.0071 U	0.0061 U	0.0072 U	0.0069 U	0.0068 U
Chloromethane	mg/kg	0.0059 U	0.0071 U	0.0061 U	0.0072 U	0.0069 U	0.0068 U
cis-1,2-Dichloroethene	mg/kg	0.0074	0.0071 U	0.0061 U	0.0072 U	0.0069 U	0.0068 U
cis-1,3-Dichloropropene	mg/kg	0.0059 U	0.0071 U	0.0061 U	0.0072 U	0.0069 U	0.0068 U
Cyclohexane	mg/kg	NA	NA	NA	NA	NA	NA
Dibromochloromethane	mg/kg	0.0059 U	0.0071 U	0.0061 U	0.0072 U	0.0069 U	0.0068 U
Dibromomethane	mg/kg	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	mg/kg	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	mg/kg	NA	NA	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		WMB-1	WMB-2	WMB-3	WMB-4	WMB-5	WMB-6
Sample Depth (ft bgs):		3 - 3.5	3 - 3.5	5 - 5.5	0.5 - 1	0.5 - 1	4 - 4.5
Date Collected:	Units	01/22/97	01/22/97	01/22/97	01/22/97	01/22/97	01/22/97
Volatile Organics							
Ethylbenzene	mg/kg	0.0059 U	0.0071 U	0.0061 U	0.0072 U	0.0069 U	0.0068 U
Iodomethane	mg/kg	NA	NA	NA	NA	NA	NA
Isobutanol	mg/kg	NA	NA	NA	NA	NA	NA
Isopropylbenzene	mg/kg	NA	NA	NA	NA	NA	NA
Methacrylonitrile	mg/kg	NA	NA	NA	NA	NA	NA
Methyl acetate	mg/kg	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	mg/kg	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	mg/kg	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	mg/kg	NA	NA	NA	NA	NA	NA
Methylene Chloride	mg/kg	0.0059 U	0.0071 U	0.0061 U	0.0072 U	0.0069 U	0.0068 U
Propionitrile	mg/kg	NA	NA	NA	NA	NA	NA
Styrene	mg/kg	0.0059 U	0.0071 U	0.0061 U	0.0072 U	0.0069 U	0.0068 U
Tetrachloroethene	mg/kg	0.0059 U	0.0071 U	0.0061 U	0.0072 U	0.0069 U	0.0068 U
Toluene	mg/kg	0.0059 U	0.0071 U	0.0061 U	0.0072 U	0.0069 U	0.0068 U
trans-1,2-Dichloroethene	mg/kg	0.0059 U	0.0071 U	0.0061 U	0.0072 U	0.0069 U	0.0068 U
trans-1,3-Dichloropropene	mg/kg	0.0059 U	0.0071 U	0.0061 U	0.0072 U	0.0069 U	0.0068 U
trans-1,4-Dichloro-2-butene	mg/kg	NA	NA	NA	NA	NA	NA
Trichloroethene	mg/kg	0.0059 U	0.0071 U	0.0061 U	0.0072 U	0.0069 U	0.0068 U
Trichlorofluoromethane	mg/kg	NA	NA	NA	NA	NA	NA
Vinyl Acetate	mg/kg	NA	NA	NA	NA	NA	NA
Vinyl Chloride	mg/kg	0.0059 U	0.0071 U	0.0061 U	0.0072 U	0.0069 U	0.0068 U
Total 1,3-Dichloropropenes	mg/kg	0.0059 U	0.0071 U	0.0061 U	0.0072 U	0.0069 U	0.0068 U
Total Xylenes	mg/kg	0.0059 U	0.0071 U	0.0061 U	0.0072 U	0.0069 U	0.0068 U

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID: Sample Depth (ft bgs): Date Collected:	Units	Soil Saturation Concentration Screening Levels (CSAT)	Groundwater Contact Protection (GCCP)	Groundwater Surface Water Interface Protection (GSIP)	Industrial Direct Contact (IDC)	Industrial Drinking Water Protection (IDWP)	Industrial Particulate Soil Inhalation Criteria (IPSIC)	Industrial Soil Volatilization to Indoor Air Inhalation (ISVIA)	Finite VSIC for 2 Meter Source Thickness (IVSIC2)	Finite VSIC for 5 Meter Source Thickness (IVSIC5)	Infinite Source Volatile Soil Inhalation Criteria (VSIC) (IVSICI)	Residential Drinking Water Protection (RDWP)
Semivolatile Organics												
1,2,3,4-Tetrachlorobenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
1,2,3,5-Tetrachlorobenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
1,2,3-Trichlorobenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
1,2,4,5-Tetrachlorobenzene	mg/kg	{NA}	1,500	3.4 {X}	250,000	1,500	{ID}	{ID}	{ID}	{ID}	{ID}	1,500
1,2,4-Trichlorobenzene	mg/kg	1,100	1,100	1.8	1,100 {C,DD}	4.2	11,000,000	1,100 {C}	34,000	34,000	34,000	4.2
1,2-Dichlorobenzene	mg/kg	210	210 {C}	0.36	210 {C}	14	44,000,000	210 {C}	55,000	46,000	46,000	14
1,2-Dinitrobenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
1,3,5-Trichlorobenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
1,3,5-Trimethylbenzene	mg/kg	94 {I}	94 {I,C}	1.1 {I}	94 {I,C}	1.8 {I}	36,000,000 {I}	94 {I,C}	460,000 {I}	460,000 {I}	19,000 {I}	1.8 {I}
1,3,5-Trinitrobenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
1,3-Dichlorobenzene	mg/kg	170	51	1.1	170 {C}	0.48	{ID}	{ID}	{ID}	{ID}	{ID}	0.17
1,3-Dinitrobenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
1,4-Dichlorobenzene	mg/kg	{NA}	140	0.29	1,900	1.7	570,000	100	340	260	260	1.7
1,4-Dinitrobenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
1,4-Naphthoquinone	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
1-Naphthylamine	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
2,3,4,6-Tetrachlorophenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
2,3,5,6-Tetrachlorophenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
2,4,5-Trichlorophenol	mg/kg	{NA}	9,100	{NA}	73,000	110	10,000,000	{NLV}	{NLV}	{NLV}	{NLV}	39
2,4,6-Trichlorophenol	mg/kg	{NA}	200	0.33 {M}	3,300	9.4	1,300,000	{NLV}	{NLV}	{NLV}	{NLV}	2.4
2,4-Diaminotoluene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
2,4-Dichlorophenol	mg/kg	1,800	960	0.38	1,800 {C,DD}	4.2	2,300,000	{NLV}	{NLV}	{NLV}	{NLV}	1.5
2,4-Dimethylphenol	mg/kg	{NA}	10,000	7.6	36,000	20	2,100,000	{NLV}	{NLV}	{NLV}	{NLV}	7.4
2,4-Dinitrophenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
2,4-Dinitrotoluene	mg/kg	{NA}	170	{NA}	220	0.64	20,000	{NLV}	{NLV}	{NLV}	{NLV}	0.43
2,6-Dichlorophenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
2,6-Dinitrotoluene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
2-Acetylaminofluorene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
2-Chloronaphthalene	mg/kg	{NA}	2,300	{NA}	180,000	1,800	{ID}	{ID}	{ID}	{ID}	{ID}	620
2-Chlorophenol	mg/kg	19,000	1,900	0.44	4,500	2.6	{ID}	{ID}	{ID}	{ID}	{ID}	0.9
2-Methylnaphthalene	mg/kg	{NA}	5,500	{ID}	26,000	170	{ID}	{ID}	{ID}	{ID}	{ID}	57
2-Methylphenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
2-Naphthylamine	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
2-Nitroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
2-Nitrophenol	mg/kg	{NA}	1,600	{ID}	2,000	1.2	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	0.4
2-Picoline	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
3,3'-Dichlorobenzidine	mg/kg	{NA}	4.6	2 {M,X}	30	2 {M}	8,200	{NLV}	{NLV}	{NLV}	{NLV}	2 {M}
3,3'-Dimethylbenzidine	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
3-Methylcholanthrene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
3-Methylphenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
3-Nitroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
4,4'-Methylene-bis(2-chloroaniline)	mg/kg	{NA}	{NLL}	{NLL}	32	{NLL}	110,000	{NLV}	{NLV}	{NLV}	{NLV}	{NLL}
4,6-Dinitro-2-methylphenol	mg/kg	{NA}	190	{NA}	260	0.83 {M}	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	0.83 {M}
4-Aminobiphenyl	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -

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SAGINAW, MICHIGAN

Location ID: Sample Depth (ft bgs): Date Collected:	Units	Soil Saturation Concentration Screening Levels (CSAT)	Groundwater Contact Protection (GCCP)	Groundwater Surface Water Interface Protection (GSIP)	Industrial Direct Contact (IDC)	Industrial Drinking Water Protection (IDWP)	Industrial Particulate Soil Inhalation Criteria (IPSIC)	Industrial Soil Volatilization to Indoor Air Inhalation (ISVIA)	Finite VSIC for 2 Meter Source Thickness (IVSIC2)	Finite VSIC for 5 Meter Source Thickness (IVSIC5)	Infinite Source Volatile Soil Inhalation Criteria (VSIC) (IVSICI)	Residential Drinking Water Protection (RDWP)
Semivolatile Organics (Cont'd.)												
4-Bromophenyl-phenylether	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
4-Chloro-3-Methylphenol	mg/kg	{NA}	3,000	0.28	15,000	16	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	5.8
4-Chloroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
4-Chlorobenzilate	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
4-Chlorophenyl-phenylether	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
4-Methylphenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
4-Nitroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
4-Nitrophenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
4-Nitroquinoline-1-oxide	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
4-Phenylenediamine	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
5-Nitro-o-toluidine	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
7,12-Dimethylbenz(a)anthracene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
a,a'-Dimethylphenethylamine	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Acenaphthene	mg/kg	{NA}	970	4.4	130,000	880	6,200,000	350,000	97,000	97,000	97,000	300
Acenaphthylene	mg/kg	{NA}	440	{ID}	5,200	17	1,000,000	3,000	2,700	2,700	2,700	5.9
Acetophenone	mg/kg	1,100	1,100 {C}	{NA}	1,100 {C}	88	14,000,000	1,100 {C}	52,000	52,000	52,000	30
Aniline	mg/kg	4,500	2,800	0.33 {M}	1,500	4.4	29,000	{NLV}	{NLV}	{NLV}	{NLV}	1.1
Anthracene	mg/kg	{NA}	41	{ID}	730,000	41	29,000,000	1,000,000 {D}	1,600,000	1,600,000	1,600,000	41
Aramite	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Atrazine	mg/kg	{NA}	110	0.15 {X}	330 {DD}	0.06	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	0.06
Benzaldehyde	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Benzidine	mg/kg	{NA}	1 {M}	{ID}	1 {M}	1 {M}	59	{NLV}	{NLV}	{NLV}	{NLV}	1 {M}
Benzo(a)anthracene	mg/kg	{NA}	{NLL}	{NLL}	80 {Q}	{NLL}	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NLL}
Benzo(a)pyrene	mg/kg	{NA}	{NLL}	{NLL}	8 {Q}	{NLL}	1,900 {Q}	{NLV}	{NLV}	{NLV}	{NLV}	{NLL}
Benzo(b)fluoranthene	mg/kg	{NA}	{NLL}	{NLL}	80 {Q}	{NLL}	{ID}	{ID}	{ID}	{ID}	{ID}	{NLL}
Benzo(g,h,i)perylene	mg/kg	{NA}	{NLL}	{NLL}	7,000	{NLL}	350,000	{NLV}	{NLV}	{NLV}	{NLV}	{NLL}
Benzo(k)fluoranthene	mg/kg	{NA}	{NLL}	{NLL}	800 {Q}	{NLL}	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NLL}
Benzoic Acid	mg/kg	{NA}	70,000	{NA}	1,000,000 {DD}	1,800	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	640
Benzyl Alcohol	mg/kg	5,800	5,800 {C}	{NA}	5,800 {C}	580	150,000,000	{NLV}	{NLV}	{NLV}	{NLV}	200
Biphenyl	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
bis(2-Chloroethoxy)methane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
bis(2-Chloroethyl)ether	mg/kg	2,200 {I}	110 {I}	0.3 {I}	58 {I}	0.17 {I}	12,000 {I}	44 {I}	13 {I}	13 {I}	13 {I}	0.1 {I}
bis(2-Chloroisopropyl)ether	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
bis(2-Ethylhexyl)phthalate	mg/kg	10,000	{NLL}	{NLL}	10,000 {C}	{NLL}	890,000	{NLV}	{NLV}	{NLV}	{NLV}	{NLL}
Butylbenzylphthalate	mg/kg	310	310 {C}	26 {X}	310 {C}	310 {C}	21,000,000	{NLV}	{NLV}	{NLV}	{NLV}	310 {C}
Caprolactam	mg/kg	{NA}	1,000,000 {D}	{NA}	310,000 {I,DD}	340	290,000	{NLV}	{NLV}	{NLV}	{NLV}	120
Carbazole	mg/kg	{NA}	820	1.1	2,400	39	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	9.4
Chrysene	mg/kg	{NA}	{NLL}	{NLL}	8,000 {Q}	{NLL}	{ID}	{ID}	{ID}	{ID}	{ID}	{NLL}
Diallate	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Dibenzo(a,h)anthracene	mg/kg	{NA}	{NLL}	{NLL}	8 {Q}	{NLL}	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NLL}
Dibenzofuran	mg/kg	{NA}	{ID}	1.7	{ID}	{ID}	{ID}	{ID}	{ID}	{ID}	{ID}	{ID}
Diethylphthalate	mg/kg	740	740 {C}	2.2	740 {C}	320	1,500,000	{NLV}	{NLV}	{NLV}	{NLV}	110
Dimethylphthalate	mg/kg	790	790 {C}	{NA}	790 {C}	790 {C}	1,500,000	{NLV}	{NLV}	{NLV}	{NLV}	790 {C}
Di-n-Butylphthalate	mg/kg	760	760 {C}	11	760 {C}	760 {C}	1,500,000	{NLV}	{NLV}	{NLV}	{NLV}	760 {C}
Di-n-Octylphthalate	mg/kg	140,000	140,000 {C}	{ID}	20,000	140,000 {C}	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	100,000
Diphenylamine	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -

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Semivolatile Organics (Cont'd.)												
Ethyl Methacrylate	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Ethyl Methanesulfonate	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Fluoranthene	mg/kg	{NA}	730	5.5	130,000	730	4,100,000	1,000,000 {D}	880,000	880,000	890,000	730
Fluorene	mg/kg	{NA}	890	5.3	87,000	890	4,100,000	1,000,000 {D}	150,000	150,000	150,000	390
Hexachlorobenzene	mg/kg	{NA}	8.2	0.35	37	1.8	8,500	220	56	56	56	1.8
Hexachlorobutadiene	mg/kg	350	350 {C}	0.091	350 {C}	72	180,000	350 {C}	460	460	460	26
Hexachlorocyclopentadiene	mg/kg	720	720 {C}	{ID}	720 {C}	320	5,900	56	60	60	60	320
Hexachloroethane	mg/kg	{NA}	110	1.8 {X}	730	1.2	100,000	79	1,400	1,400	660	0.43
Hexachlorophene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Hexachloropropene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Indeno(1,2,3-cd)pyrene	mg/kg	{NA}	{NLL}	{NLL}	80 {Q}	{NLL}	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NLL}
Isophorone	mg/kg	2,400	2,400 {C}	11 {X}	2,400 {C}	62	8,200,000	{NLV}	{NLV}	{NLV}	{NLV}	15
Isosafrole	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Methapyrilene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Methyl Methanesulfonate	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Naphthalene	mg/kg	{NA}	2,100	0.87	52,000	100	88,000	470	350	350	350	35
Nitrobenzene	mg/kg	490 {I}	220 {I}	3.6 {I,X}	340 {I}	0.33 {I,M}	21,000 {I}	170 {I}	64 {I}	64 {I}	64 {I}	0.33 {I,M}
N-Nitrosodiethylamine	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
N-Nitrosodimethylamine	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
N-Nitroso-di-n-butylamine	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
N-Nitroso-di-n-propylamine	mg/kg	1,500	7.2	{NA}	5.4	0.33 {M}	2,000	{NLV}	{NLV}	{NLV}	{NLV}	0.33 {M}
N-Nitrosodiphenylamine	mg/kg	{NA}	700	{NA}	7,800	22	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	5.4
N-Nitrosomethylethylamine	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
N-Nitrosomorpholine	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
N-Nitrosopiperidine	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
N-Nitrosopyrrolidine	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
o-Toluidine	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
p-Dimethylaminoazobenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Pentachlorobenzene	mg/kg	190	190 {C}	9.5	190 {C}	81	{ID}	{ID}	{ID}	{ID}	{ID}	29
Pentachloroethane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Pentachloronitrobenzene	mg/kg	{NA}	37	{NA}	5,500	37	150,000	220	280	280	280	37
Pentachlorophenol	mg/kg	{NA}	4.3	27 {G,X}	320	0.022	130,000	{NLV}	{NLV}	{NLV}	{NLV}	0.022
Phenacetin	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Phenanthrene	mg/kg	{NA}	1,100	5.3	5,200	160	2,900	5,100	190	190	190	56
Phenol	mg/kg	12,000	12,000 {C}	4.2	12,000 {C,DD}	260	18,000,000	{NLV}	{NLV}	{NLV}	{NLV}	88
Pronamide	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Pyrene	mg/kg	{NA}	480	{ID}	84,000	480	2,900,000	1,000,000 {D}	780,000	780,000	780,000	480
Pyridine	mg/kg	37 {I}	37 {I,C}	{NA}	37 {I,C}	0.42 {I}	100,000 {I}	2 {I}	97 {I}	40 {I}	9.8 {I}	0.4 {I}
Safrole	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Sulfotep	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Total Methylphenols	mg/kg	{NA}	16,000 {J}	1.4 {J}	36,000 {J}	20 {J}	2,900,000 {J}	{NLV}	{NLV}	{NLV}	{NLV}	7.4 {J}
Semivolatile Organics-TCLP												
1,4-Dichlorobenzene	ug/L	{NA}	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
2,4,5-Trichlorophenol	ug/L	{NA}	- -	{NA}	- -	- -	- -	{NLV}	{NLV}	{NLV}	{NLV}	- -
2,4,6-Trichlorophenol	ug/L	{NA}	- -	{M}	- -	- -	- -	{NLV}	{NLV}	{NLV}	{NLV}	- -
2,4-Dinitrotoluene	ug/L	{NA}	- -	{NA}	- -	- -	- -	{NLV}	{NLV}	{NLV}	{NLV}	- -

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REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID: Sample Depth (ft bgs): Date Collected:	Units	Soil Saturation Concentration Screening Levels (CSAT)	Groundwater Contact Protection (GCCP)	Groundwater Surface Water Interface Protection (GSIP)	Industrial Direct Contact (IDC)	Industrial Drinking Water Protection (IDWP)	Industrial Particulate Soil Inhalation Criteria (IPSIC)	Industrial Soil Volatilization to Indoor Air Inhalation (ISVIA)	Finite VSIC for 2 Meter Source Thickness (IVSIC2)	Finite VSIC for 5 Meter Source Thickness (IVSIC5)	Infinite Source Volatile Soil Inhalation Criteria (VSIC) (IVSICI)	Residential Drinking Water Protection (RDWP)
Semivolatile Organics-TCLP (Cont'd.)												
Hexachlorobenzene	ug/L	{NA}	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Hexachlorobutadiene	ug/L	- -	{C}	- -	{C}	- -	- -	{C}	- -	- -	- -	- -
Hexachloroethane	ug/L	{NA}	- -	{X}	- -	- -	- -	- -	- -	- -	- -	- -
Nitrobenzene	ug/L	{I}	{I}	{I,X}	{I}	{I,M}	{I}	{I}	{I}	{I}	{I}	{I,M}
Pentachlorophenol	ug/L	{NA}	- -	{G,X}	- -	- -	- -	{NLV}	{NLV}	{NLV}	{NLV}	- -
Pyridine	ug/L	{I}	{I,C}	{NA}	{I,C}	{I}	{I}	{I}	{I}	{I}	{I}	{I}
Total Methylphenols	ug/L	{NA}	{J}	{J}	{J}	{J}	{J}	{NLV}	{NLV}	{NLV}	{NLV}	{J}
PCBs												
Aroclor-1016	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Aroclor-1221	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Aroclor-1232	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Aroclor-1242	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Aroclor-1248	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Aroclor-1254	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Aroclor-1260	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Total PCBs	mg/kg	{NA}	{NLL}	{NLL}	16 {J,T}	{NLL}	6,500 {J,T}	16,000 {J,T}	28,000 {J,T}	28,000 {J,T}	810 {J,T}	{NLL}
Organochlorine Pesticides												
3-Methylcholanthrene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
4,4'-DDD	mg/kg	{NA}	{NLL}	{NLL}	400	{NLL}	56,000	{NLV}	{NLV}	{NLV}	{NLV}	{NLL}
4,4'-DDE	mg/kg	{NA}	{NLL}	{NLL}	190	{NLL}	40,000	{NLV}	{NLV}	{NLV}	{NLV}	{NLL}
4,4'-DDT	mg/kg	{NA}	{NLL}	{NLL}	280	{NLL}	40,000	{NLV}	{NLV}	{NLV}	{NLV}	{NLL}
4-Nitroquinoline-1-oxide	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Aldrin	mg/kg	{NA}	{NLL}	{NLL}	4.3	- -	800	7,100	200	200	200	{NLL}
Alpha-BHC	mg/kg	{NA}	2.5	{NA}	12	0.071	2,100	160	86	86	41	0.018
Alpha-Chlordane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Benzo(a)anthracene	mg/kg	{NA}	{NLL}	{NLL}	80 {Q}	{NLL}	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NLL}
Beta-BHC	mg/kg	{NA}	5.1	{NA}	25	0.15	7,400	{NLV}	{NLV}	{NLV}	{NLV}	0.037
Delta-BHC	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Dieldrin	mg/kg	{NA}	{NLL}	{NLL}	4.7	{NLL}	850	720	64	64	64	{NLL}
Endosulfan I	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Endosulfan II	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Endosulfan Sulfate	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Endrin	mg/kg	{NA}	{NLL}	{NLL}	190	{NLL}	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NLL}
Endrin Aldehyde	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Endrin Ketone	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Gamma-BHC (Lindane)	mg/kg	{NA}	7.1	0.02 {M}	42	0.02 {M}	{ID}	{ID}	{ID}	{ID}	{ID}	0.02 {M}
Gamma-Chlordane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Heptachlor	mg/kg	{NA}	{NLL}	{NLL}	23	{NLL}	3,000	1,900	210	210	210	{NLL}
Heptachlor Epoxide	mg/kg	{NA}	{NLL}	{NLL}	9.5	{NLL}	1,500	{NLV}	{NLV}	{NLV}	{NLV}	{NLL}
Isodrin	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Kepone	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Methoxychlor	mg/kg	{NA}	18	{NA}	5,600	16	{ID}	{ID}	{ID}	{ID}	{ID}	16
Toxaphene	mg/kg	{NA}	360	0.86	85	24	12,000	{NLV}	{NLV}	{NLV}	{NLV}	24

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

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Organochlorine Pesticides-TCLP												
Endrin	ug/L	{NA}	{NLL}	{NLL}	- -	{NLL}	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NLL}
Gamma-BHC (Lindane)	ug/L	{NA}	- -	{M}	- -	{M}	{ID}	{ID}	{ID}	{ID}	{ID}	{M}
Heptachlor	ug/L	{NA}	{NLL}	{NLL}	- -	{NLL}	- -	- -	- -	- -	- -	{NLL}
Heptachlor Epoxide	ug/L	{NA}	{NLL}	{NLL}	- -	{NLL}	- -	{NLV}	{NLV}	{NLV}	{NLV}	{NLL}
Methoxychlor	ug/L	{NA}	- -	{NA}	- -	- -	{ID}	{ID}	{ID}	{ID}	{ID}	- -
Technical Chlordane	ug/L	{NA}	{NLL}	{NLL}	{J}	{NLL}	{J}	{J}	{J}	{J}	{J}	{NLL}
Toxaphene	ug/L	{NA}	- -	- -	- -	- -	- -	{NLV}	{NLV}	{NLV}	{NLV}	- -
Herbicides												
2,4,5-T	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
2,4,5-TP	mg/kg	{NA}	3,100	2.2	5,500	3.6	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	3.6
2,4-D	mg/kg	{NA}	2,400	4.4	8,600	1.4	2,900,000	{NLV}	{NLV}	{NLV}	{NLV}	1.4
Dinoseb	mg/kg	140	140 {C}	0.2 {M}	140 {C,DD}	0.3	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	0.3
Herbicides-TCLP												
2,4,5-TP	ug/L	{NA}	- -	- -	- -	- -	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	- -
2,4-D	ug/L	{NA}	- -	- -	- -	- -	- -	{NLV}	{NLV}	{NLV}	{NLV}	- -
Dioxins/Furans												
2,3,7,8-TCDD	mg/kg	{NA}	{NLL}	{NLL}	0.00099 {O}	{NLL}	0.089 {O}	{NLV}	{NLV}	{NLV}	{NLV}	{NLL}
Total Hexachlorodibenzofuran (HxCDF)	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Total Hexachlorodibenzo-p-dioxin (HxCDD)	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Total Pentachlorodibenzofuran (PeCDF)	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Total Pentachlorodibenzo-p-dioxin (PeCDD)	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Total Tetrachlorodibenzofuran (TCDF)	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Total Tetrachlorodibenzo-p-dioxin (TCDD)	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
2,3,7,8-TCDD (TEQ)	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
TPH												
Total Petroleum Hydrocarbons - extractable (DRO)	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:	Units	BBL-MW1	BBL-MW2	BBL-MW3	BBL-MW4	BBL-MW5	BBL-SB1	BBL-SB1	BBL-SB2	BBL-SB2	BBL-SB3	BBL-SB3	BBL-SB4	BBL-SB4	BBL-SB5	BBL-SB5	BH01-98
Sample Depth (ft bgs):		4 - 6	4 - 6	6 - 8	4 - 6	4 - 6	4 - 6	8 - 10	0 - 2	8 - 10	6 - 8	8 - 10	0 - 2	8 - 10	0 - 2	20 - 22	1 - 3
Date Collected:		05/02/96	05/02/96	05/02/96	05/03/96	05/03/96	05/06/96	05/06/96	05/07/96	05/07/96	05/07/96	05/07/96	05/07/96	05/07/96	05/06/96	05/06/96	01/16/98
Semivolatile Organics																	
1,2,3,4-Tetrachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,5-Tetrachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4,5-Tetrachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	0.013 U	0.0058 U	1.0 U	0.0055 UJ	0.0056 U	0.0057 U	3.5 U	0.0054 U	0.0057 U	0.0059 U	3.7 U	3.4 U	1.6 U	0.0060 U	0.0061 U	NA
1,2-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	mg/kg	0.027	R	7.7 J	R	R	R	18	R	R	0.019	7.1 J	R	R	R	R	NA
1,3,5-Trinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	0.013 U	0.0058 U	1.0 U	0.0055 UJ	0.0056 U	0.0057 U	3.5 U	0.0054 U	0.0057 U	0.0059 U	3.7 U	3.4 U	1.6 U	0.0060 U	0.0061 U	NA
1,3-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	0.013 U	0.0058 U	1.0 U	0.0055 UJ	0.0056 U	0.0057 U	3.5 U	0.0054 U	0.0057 U	0.0059 U	3.7 U	3.4 U	1.6 U	0.0060 U	0.0061 U	NA
1,4-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6-Tetrachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,5,6-Tetrachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Diaminotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Acetylaminofluorene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Naphthylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Picoline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dimethylbenzidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-Methylene-bis(2-chloroaniline)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Aminobiphenyl	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Sample Depth (ft bgs):		4 - 6	4 - 6	6 - 8	4 - 6	4 - 6	4 - 6	8 - 10	0 - 2	8 - 10	6 - 8	8 - 10	0 - 2	8 - 10	0 - 2	20 - 22	1 - 3
Date Collected:		05/02/96	05/02/96	05/02/96	05/03/96	05/03/96	05/06/96	05/06/96	05/07/96	05/07/96	05/07/96	05/07/96	05/07/96	05/07/96	05/06/96	05/06/96	01/16/98
Semivolatile Organics (Cont'd.)																	
4-Bromophenyl-phenylether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorobenzilate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroquinoline-1-oxide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aramite	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzoic Acid	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroisopropyl)ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diallate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diphenylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		BBL-MW1	BBL-MW2	BBL-MW3	BBL-MW4	BBL-MW5	BBL-SB1	BBL-SB1	BBL-SB2	BBL-SB2	BBL-SB3	BBL-SB3	BBL-SB4	BBL-SB4	BBL-SB5	BBL-SB5	BH01-98
Sample Depth (ft bgs):		4 - 6	4 - 6	6 - 8	4 - 6	4 - 6	4 - 6	8 - 10	0 - 2	8 - 10	6 - 8	8 - 10	0 - 2	8 - 10	0 - 2	20 - 22	1 - 3
Date Collected:	Units	05/02/96	05/02/96	05/02/96	05/03/96	05/03/96	05/06/96	05/06/96	05/07/96	05/07/96	05/07/96	05/07/96	05/07/96	05/07/96	05/06/96	05/06/96	01/16/98
Semivolatile Organics (Cont'd.)																	
Ethyl Methacrylate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorophene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloropropene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isosafrole	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomethylethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenacetin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pronamide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyridine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organics-TCLP																	
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		BBL-MW1	BBL-MW2	BBL-MW3	BBL-MW4	BBL-MW5	BBL-SB1	BBL-SB1	BBL-SB2	BBL-SB2	BBL-SB3	BBL-SB3	BBL-SB4	BBL-SB4	BBL-SB5	BBL-SB5	BH01-98
Sample Depth (ft bgs):		4 - 6	4 - 6	6 - 8	4 - 6	4 - 6	4 - 6	8 - 10	0 - 2	8 - 10	6 - 8	8 - 10	0 - 2	8 - 10	0 - 2	20 - 22	1 - 3
Date Collected:	Units	05/02/96	05/02/96	05/02/96	05/03/96	05/03/96	05/06/96	05/06/96	05/07/96	05/07/96	05/07/96	05/07/96	05/07/96	05/07/96	05/06/96	05/06/96	01/16/98
Semivolatile Organics-TCLP (Cont'd.)																	
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs																	
Aroclor-1016	mg/kg	0.35 U	0.19 U	0.19 U	0.18 U	0.18 U	0.19 U	0.18 U	0.18 U	0.19 U	0.20 U*	0.19 U*	0.18 U	0.21 U	0.20 U	0.20 U	24 U
Aroclor-1221	mg/kg	0.35 U	0.19 U	0.19 U	0.18 U	0.18 U	0.19 U	0.18 U	0.18 U	0.19 U	0.20 U*	0.19 U*	0.18 U	0.21 U	0.20 U	0.20 U	24 U
Aroclor-1232	mg/kg	0.35 U	0.19 U	0.19 U	0.18 U	0.18 U	0.19 U	0.18 U	0.18 U	0.19 U	0.20 U*	0.19 U*	0.18 U	0.21 U	0.20 U	0.20 U	24 U
Aroclor-1242	mg/kg	0.35 U	0.19 U	0.19 U	0.18 U	0.18 U	0.19 U	0.18 U	0.18 U	0.19 U	0.20 U*	0.19 U*	0.18 U	0.21 U	0.20 U	0.20 U	24 U
Aroclor-1248	mg/kg	0.35 U	0.19 U	0.19 U	0.18 U	0.18 U	0.19 U	0.18 U	0.18 U	0.19 U	0.20 U*	0.19 U*	0.18 U	0.21 U	0.20 U	0.20 U	24 U
Aroclor-1254	mg/kg	1.6	0.19 U	0.19 U	0.18 U	0.18 U	0.19 U	0.18 U	0.18 U	0.19 U	0.20 U	0.19 U	0.18 U	0.21 U	0.20 U	0.20 U	100
Aroclor-1260	mg/kg	0.35 U	0.19 U	0.19 U	0.18 U	0.18 U	0.19 U	0.18 U	0.18 U	0.19 U	0.20 U	0.19 U	0.18 U	0.21 U	0.83	0.20 U	24 U
Total PCBs	mg/kg	1.6	0.19 U	0.19 U	0.18 U	0.18 U	0.19 U	0.18 U	0.18 U	0.19 U	0.20 U	0.19 U	0.18 U	0.21 U	0.83	0.20 U	100
Organochlorine Pesticides																	
3-Methylcholanthrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDD	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroquinoline-1-oxide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		BBL-MW1	BBL-MW2	BBL-MW3	BBL-MW4	BBL-MW5	BBL-SB1	BBL-SB1	BBL-SB2	BBL-SB2	BBL-SB3	BBL-SB3	BBL-SB4	BBL-SB4	BBL-SB5	BBL-SB5	BH01-98
Sample Depth (ft bgs):		4 - 6	4 - 6	6 - 8	4 - 6	4 - 6	4 - 6	8 - 10	0 - 2	8 - 10	6 - 8	8 - 10	0 - 2	8 - 10	0 - 2	20 - 22	1 - 3
Date Collected:	Units	05/02/96	05/02/96	05/02/96	05/03/96	05/03/96	05/06/96	05/06/96	05/07/96	05/07/96	05/07/96	05/07/96	05/07/96	05/07/96	05/06/96	05/06/96	01/16/98
Organochlorine Pesticides-TCLP																	
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Technical Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides																	
2,4,5-T	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides-TCLP																	
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans																	
2,3,7,8-TCDD	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																	
Total Petroleum Hydrocarbons - extractable (DRO)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		BH01-98	BH01-98	BH02-98	BH02-98	BH02-98	BH03-98	BH03-98	BH03-98	BH04-98	BH04-98	BH04-98	BH05-98	BH05-98	BH05-98	BH06-98	BH06-98
Sample Depth (ft bgs):		5 - 7	9 - 11	1 - 3	5 - 7	9 - 11	1 - 3	3 - 5	5 - 6.5	1 - 3	5 - 7	7 - 7.25	1 - 3	5 - 7	7 - 9	1 - 3	7 - 9
Date Collected:	Units	01/16/98	01/16/98	01/16/98	01/16/98	01/16/98	01/16/98	01/16/98	01/16/98	01/16/98	01/16/98	01/16/98	01/16/98	01/16/98	01/16/98	04/15/98	04/15/98
Semivolatile Organics																	
1,2,3,4-Tetrachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,5-Tetrachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4,5-Tetrachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6-Tetrachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,5,6-Tetrachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Diaminotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Acetylaminofluorene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Naphthylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Picoline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dimethylbenzidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-Methylene-bis(2-chloroaniline)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Aminobiphenyl	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		BH01-98	BH01-98	BH02-98	BH02-98	BH02-98	BH03-98	BH03-98	BH03-98	BH04-98	BH04-98	BH04-98	BH05-98	BH05-98	BH05-98	BH06-98	BH06-98
Sample Depth (ft bgs):		5 - 7	9 - 11	1 - 3	5 - 7	9 - 11	1 - 3	3 - 5	5 - 6.5	1 - 3	5 - 7	7 - 7.25	1 - 3	5 - 7	7 - 9	1 - 3	7 - 9
Date Collected:	Units	01/16/98	01/16/98	01/16/98	01/16/98	01/16/98	01/16/98	01/16/98	01/16/98	01/16/98	01/16/98	01/16/98	01/16/98	01/16/98	01/16/98	04/15/98	04/15/98
Semivolatile Organics (Cont'd.)																	
4-Bromophenyl-phenylether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorobenzilate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroquinoline-1-oxide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aramite	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzoic Acid	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroisopropyl)ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diallate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diphenylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		BH01-98	BH01-98	BH02-98	BH02-98	BH02-98	BH03-98	BH03-98	BH03-98	BH04-98	BH04-98	BH04-98	BH05-98	BH05-98	BH05-98	BH06-98	BH06-98
Sample Depth (ft bgs):		5 - 7	9 - 11	1 - 3	5 - 7	9 - 11	1 - 3	3 - 5	5 - 6.5	1 - 3	5 - 7	7 - 7.25	1 - 3	5 - 7	7 - 9	1 - 3	7 - 9
Date Collected:	Units	01/16/98	01/16/98	01/16/98	01/16/98	01/16/98	01/16/98	01/16/98	01/16/98	01/16/98	01/16/98	01/16/98	01/16/98	01/16/98	01/16/98	04/15/98	04/15/98
Semivolatile Organics (Cont'd.)																	
Ethyl Methacrylate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorophene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloropropene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isosafrole	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomethylethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenacetin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pronamide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyridine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organics-TCLP																	
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		BH01-98	BH01-98	BH02-98	BH02-98	BH02-98	BH03-98	BH03-98	BH03-98	BH04-98	BH04-98	BH04-98	BH05-98	BH05-98	BH05-98	BH06-98	BH06-98
Sample Depth (ft bgs):		5 - 7	9 - 11	1 - 3	5 - 7	9 - 11	1 - 3	3 - 5	5 - 6.5	1 - 3	5 - 7	7 - 7.25	1 - 3	5 - 7	7 - 9	1 - 3	7 - 9
Date Collected:	Units	01/16/98	01/16/98	01/16/98	01/16/98	01/16/98	01/16/98	01/16/98	01/16/98	01/16/98	01/16/98	01/16/98	01/16/98	01/16/98	01/16/98	04/15/98	04/15/98
Semivolatile Organics-TCLP (Cont'd.)																	
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs																	
Aroclor-1016	mg/kg	2.3 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	2.2 U	2.3 U	0.33 U	2.4 U	50 U	0.33 U	0.33 U	17 U	0.33 U
Aroclor-1221	mg/kg	2.3 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	2.2 U	2.3 U	0.33 U	2.4 U	50 U	0.33 U	0.33 U	17 U	0.33 U
Aroclor-1232	mg/kg	2.3 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	2.2 U	2.3 U	0.33 U	2.4 U	50 U	0.33 U	0.33 U	17 U	0.33 U
Aroclor-1242	mg/kg	2.3 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	2.2 U	2.3 U	0.33 U	2.4 U	50 U	0.33 U	0.33 U	17 U	0.33 U
Aroclor-1248	mg/kg	2.3 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	2.2 U	2.3 U	0.38	11	50 U	0.33 U	0.33 U	17 U	0.33 U
Aroclor-1254	mg/kg	35	0.40	2.0	1.5	0.33 U	0.44	0.37	29	42	0.33	8.8	4,900	3.6	3.9	93	0.33 U
Aroclor-1260	mg/kg	2.3 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	2.2 U	2.3 U	0.33 U	2.4 U	50 U	0.33 U	0.33 U	17 U	0.33 U
Total PCBs	mg/kg	35	0.40	2.0	1.5	0.33 U	0.44	0.37	29	42	0.71	20	4,900	3.6	3.9	93	0.33 U
Organochlorine Pesticides																	
3-Methylcholanthrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDD	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroquinoline-1-oxide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		BH01-98	BH01-98	BH02-98	BH02-98	BH02-98	BH03-98	BH03-98	BH03-98	BH04-98	BH04-98	BH04-98	BH05-98	BH05-98	BH05-98	BH06-98	BH06-98
Sample Depth (ft bgs):		5 - 7	9 - 11	1 - 3	5 - 7	9 - 11	1 - 3	3 - 5	5 - 6.5	1 - 3	5 - 7	7 - 7.25	1 - 3	5 - 7	7 - 9	1 - 3	7 - 9
Date Collected:	Units	01/16/98	01/16/98	01/16/98	01/16/98	01/16/98	01/16/98	01/16/98	01/16/98	01/16/98	01/16/98	01/16/98	01/16/98	01/16/98	01/16/98	04/15/98	04/15/98
Organochlorine Pesticides-TCLP																	
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Technical Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides																	
2,4,5-T	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides-TCLP																	
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans																	
2,3,7,8-TCDD	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																	
Total Petroleum Hydrocarbons - extractable (DRO)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:	Units	BH06-98	BH7	BH7	BH07-98	BH07-98	BH07-98	BH8	BH8	BH08-98	BH08-98	BH9	BH9	BH10	BH10	BH11	BH11
Sample Depth (ft bgs):		13 - 15	0 - 2	2 - 4	1 - 3	7 - 9	13 - 15	0 - 2	2 - 4	1 - 3	7 - 9	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4
Date Collected:		04/15/98	03/06/07	03/06/07	04/15/98	04/15/98	04/15/98	03/06/07	03/06/07	04/15/98	04/15/98	03/06/07	03/06/07	03/06/07	03/06/07	03/06/07	03/06/07
Semivolatile Organics																	
1,2,3,4-Tetrachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,5-Tetrachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4,5-Tetrachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	mg/kg	NA	0.29 U	0.35 U	NA	NA	NA	0.29 U	0.31 U	NA	NA	5.6 U	0.31 U	0.30 U	0.28 U	1.2 U	0.31 U
2,3,4,6-Tetrachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,5,6-Tetrachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	mg/kg	NA	0.29 U	0.35 U	NA	NA	NA	0.29 U	0.31 U	NA	NA	5.6 U	0.31 U	0.30 U	0.28 U	1.2 U	0.31 U
2,4,6-Trichlorophenol	mg/kg	NA	0.29 U	0.35 U	NA	NA	NA	0.29 U	0.31 U	NA	NA	5.6 U	0.31 U	0.30 U	0.28 U	1.2 U	0.31 U
2,4-Diaminotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	mg/kg	NA	0.29 U	0.35 U	NA	NA	NA	0.29 U	0.31 U	NA	NA	5.6 U	0.31 U	0.30 U	0.28 U	1.2 U	0.31 U
2,4-Dimethylphenol	mg/kg	NA	0.29 U	0.11 J	NA	NA	NA	0.29 U	0.034 J	NA	NA	5.6 U	0.31 U	0.30 U	0.28 U	1.2 U	0.31 U
2,4-Dinitrophenol	mg/kg	NA	0.17 U	0.20 U	NA	NA	NA	0.16 U	0.18 U	NA	NA	3.2 U	0.17 U	0.17 U	0.16 U	0.68 U	0.18 U
2,4-Dinitrotoluene	mg/kg	NA	0.29 U	0.35 U	NA	NA	NA	0.29 U	0.31 U	NA	NA	5.6 U	0.31 U	0.30 U	0.28 U	1.2 U	0.31 U
2,6-Dichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	mg/kg	NA	0.29 U	0.35 U	NA	NA	NA	0.29 U	0.31 U	NA	NA	5.6 U	0.31 U	0.30 U	0.28 U	1.2 U	0.31 U
2-Acetylaminofluorene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	mg/kg	NA	0.29 U	0.35 U	NA	NA	NA	0.29 U	0.31 U	NA	NA	5.6 U	0.31 U	0.30 U	0.28 U	1.2 U	0.31 U
2-Chlorophenol	mg/kg	NA	0.29 U	0.35 U	NA	NA	NA	0.29 U	0.31 U	NA	NA	5.6 U	0.31 U	0.30 U	0.28 U	1.2 U	0.31 U
2-Methylnaphthalene	mg/kg	NA	0.22 J	1.0	NA	NA	NA	0.40	0.74	NA	NA	0.40 J	0.23 J	0.046 J	0.23 J	0.35 J	0.0098 J
2-Methylphenol	mg/kg	NA	0.29 U	0.059 J	NA	NA	NA	0.29 U	0.31 U	NA	NA	5.6 U	0.31 U	0.30 U	0.28 U	1.2 U	0.31 U
2-Naphthylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	mg/kg	NA	0.22 U	0.27 U	NA	NA	NA	0.22 U	0.24 U	NA	NA	4.3 U	0.23 U	0.22 U	0.21 U	0.91 U	0.24 U
2-Nitrophenol	mg/kg	NA	0.29 U	0.35 U	NA	NA	NA	0.29 U	0.31 U	NA	NA	5.6 U	0.31 U	0.30 U	0.28 U	1.2 U	0.31 U
2-Picoline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	mg/kg	NA	1.8 U	2.1 U	NA	NA	NA	1.7 U	1.9 U	NA	NA	34 U	1.9 U	1.8 U	1.7 U	7.2 U	1.9 U
3,3'-Dimethylbenzidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	mg/kg	NA	0.22 U	0.27 U	NA	NA	NA	0.22 U	0.24 U	NA	NA	4.3 U	0.23 U	0.22 U	0.21 U	0.91 U	0.24 U
4,4'-Methylene-bis(2-chloroaniline)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	mg/kg	NA	0.17 U	0.20 U	NA	NA	NA	0.16 U	0.18 U	NA	NA	3.2 U	0.17 U	0.17 U	0.16 U	0.68 U	0.18 U
4-Aminobiphenyl	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		BH06-98	BH7	BH7	BH07-98	BH07-98	BH07-98	BH8	BH8	BH08-98	BH08-98	BH9	BH9	BH10	BH10	BH11	BH11
Sample Depth (ft bgs):		13 - 15	0 - 2	2 - 4	1 - 3	7 - 9	13 - 15	0 - 2	2 - 4	1 - 3	7 - 9	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4
Date Collected:	Units	04/15/98	03/06/07	03/06/07	04/15/98	04/15/98	04/15/98	03/06/07	03/06/07	04/15/98	04/15/98	03/06/07	03/06/07	03/06/07	03/06/07	03/06/07	03/06/07
Semivolatile Organics (Cont'd.)																	
4-Bromophenyl-phenylether	mg/kg	NA	0.29 U	0.35 U	NA	NA	NA	0.29 U	0.31 U	NA	NA	5.6 U	0.31 U	0.30 U	0.28 U	1.2 U	0.31 U
4-Chloro-3-Methylphenol	mg/kg	NA	0.29 U	0.35 U	NA	NA	NA	0.29 U	0.31 U	NA	NA	5.6 U	0.31 U	0.30 U	0.28 U	1.2 U	0.31 U
4-Chloroaniline	mg/kg	NA	0.17 U	0.20 U	NA	NA	NA	0.16 U	0.18 U	NA	NA	3.2 U	0.17 U	0.17 U	0.16 U	0.68 U	0.18 U
4-Chlorobenzilate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	mg/kg	NA	0.29 U	0.35 U	NA	NA	NA	0.29 U	0.31 U	NA	NA	5.6 U	0.31 U	0.30 U	0.28 U	1.2 U	0.31 U
4-Methylphenol	mg/kg	NA	0.29 U	0.057 J	NA	NA	NA	0.29 U	0.028 J	NA	NA	5.6 U	0.31 U	0.30 U	0.28 U	1.2 U	0.31 U
4-Nitroaniline	mg/kg	NA	0.22 U	0.27 U	NA	NA	NA	0.22 U	0.24 U	NA	NA	4.3 U	0.23 U	0.22 U	0.21 U	0.91 U	0.24 U
4-Nitrophenol	mg/kg	NA	0.37 U	0.44 U	NA	NA	NA	0.36 U	0.39 U	NA	NA	7.0 U	0.38 U	0.37 U	0.35 U	1.5 U	0.39 U
4-Nitroquinoline-1-oxide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/kg	NA	0.29 U	0.067 J	NA	NA	NA	0.29 U	0.026 J	NA	NA	3.3 J	0.021 J	0.30 U	0.012 J	0.031 J	0.31 U
Acenaphthylene	mg/kg	NA	0.29 U	0.018 J	NA	NA	NA	0.29 U	0.31 U	NA	NA	5.6 U	0.0089 J	0.30 U	0.28 U	0.032 J	0.31 U
Acetophenone	mg/kg	NA	0.29 U	0.35 U	NA	NA	NA	0.29 U	0.31 U	NA	NA	5.6 U	0.31 U	0.30 U	0.28 U	1.2 U	0.31 U
Aniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/kg	NA	0.016 J	0.099 J	NA	NA	NA	0.016 J	0.036 J	NA	NA	8.5	0.046 J	0.0079 J	0.020 J	0.10 J	0.31 U
Aramite	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	mg/kg	NA	0.044 U	0.054 U	NA	NA	NA	0.043 U	0.048 U	NA	NA	0.85 U	0.046 U	0.045 U	0.042 U	0.18 U	0.048 U
Benzaldehyde	mg/kg	NA	0.29 U	0.35 U	NA	NA	NA	0.29 U	0.31 U	NA	NA	5.6 U	0.31 U	0.30 U	0.28 U	1.2 U	0.31 U
Benzidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/kg	NA	0.051 J	0.090 J	NA	NA	NA	0.022 J	0.047 J	NA	NA	8.1	0.060 J	0.017 J	0.021 J	0.31 J	0.0079 J
Benzo(a)pyrene	mg/kg	NA	0.068 J	0.064 J	NA	NA	NA	0.29 U	0.31 U	NA	NA	6.6	0.10 J	0.30 U	0.28 U	0.36 J	0.31 U
Benzo(b)fluoranthene	mg/kg	NA	0.065 J	0.052 J	NA	NA	NA	0.019 J	0.026 J	NA	NA	6.7	0.057 J	0.022 J	0.012 J	0.43 J	0.31 U
Benzo(g,h,i)perylene	mg/kg	NA	0.029 J	0.35 U	NA	NA	NA	0.29 U	0.31 U	NA	NA	2.6 J	0.31 U	0.30 U	0.28 U	0.20 J	0.31 U
Benzo(k)fluoranthene	mg/kg	NA	0.037 J	0.041 J	NA	NA	NA	0.010 J	0.022 J	NA	NA	2.8 J	0.028 J	0.011 J	0.28 U	0.19 J	0.31 U
Benzoic Acid	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	mg/kg	NA	0.29 U	0.12 J	NA	NA	NA	0.055 J	0.11 J	NA	NA	5.6 U	0.062 J	0.30 U	0.28 U	1.2 U	0.31 U
bis(2-Chloroethoxy)methane	mg/kg	NA	0.29 U	0.35 U	NA	NA	NA	0.29 U	0.31 U	NA	NA	5.6 U	0.31 U	0.30 U	0.28 U	1.2 U	0.31 U
bis(2-Chloroethyl)ether	mg/kg	NA	0.089 U	0.11 U	NA	NA	NA	0.087 U	0.095 U	NA	NA	1.7 U	0.011 J	0.089 U	0.084 U	0.36 U	0.095 U
bis(2-Chloroisopropyl)ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	mg/kg	NA	0.29 U	0.35 U	NA	NA	NA	0.29 U	0.31 U	NA	NA	5.6 U	0.31 U	0.30 U	0.28 U	1.2 U	0.31 U
Butylbenzylphthalate	mg/kg	NA	0.29 U	0.35 U	NA	NA	NA	0.29 U	0.31 U	NA	NA	5.6 U	0.31 U	0.30 U	0.28 U	1.2 U	0.31 U
Caprolactam	mg/kg	NA	0.29 U	0.35 U	NA	NA	NA	0.29 U	0.31 U	NA	NA	5.6 U	0.31 U	0.30 U	0.28 U	1.2 U	0.31 U
Carbazole	mg/kg	NA	0.29 U	0.35 U	NA	NA	NA	0.29 U	0.31 U	NA	NA	3.6 J	0.31 U	0.30 U	0.28 U	1.2 U	0.31 U
Chrysene	mg/kg	NA	0.082 J	0.11 J	NA	NA	NA	0.036 J	0.068 J	NA	NA	7.6	0.14 J	0.038 J	0.031 J	0.42 J	0.0091 J
Diallate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	mg/kg	NA	0.29 U	0.35 U	NA	NA	NA	0.29 U	0.31 U	NA	NA	0.055 J	0.31 U	0.30 U	0.28 U	1.2 U	0.31 U
Dibenzofuran	mg/kg	NA	0.041 J	0.24 J	NA	NA	NA	0.090 J	0.16 J	NA	NA	2.4 J	0.069 J	0.30 U	0.022 J	1.2 U	0.31 U
Diethylphthalate	mg/kg	NA	0.29 U	0.35 U	NA	NA	NA	0.29 U	0.31 U	NA	NA	5.6 U	0.31 U	0.30 U	0.28 U	1.2 U	0.31 U
Dimethylphthalate	mg/kg	NA	0.29 U	0.35 U	NA	NA	NA	0.29 U	0.31 U	NA	NA	5.6 U	0.31 U	0.30 U	0.28 U	1.2 U	0.31 U
Di-n-Butylphthalate	mg/kg	NA	0.29 U	0.35 U	NA	NA	NA	0.29 U	0.025 J	NA	NA	5.6 U	0.31 U	0.30 U	0.28 U	1.2 U	0.31 U
Di-n-Octylphthalate	mg/kg	NA	0.29 U	0.35 U	NA	NA	NA	0.29 U	0.31 U	NA	NA	5.6 U	0.31 U	0.30 U	0.28 U	1.2 U	0.31 U
Diphenylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		BH06-98	BH7	BH7	BH07-98	BH07-98	BH07-98	BH8	BH8	BH08-98	BH08-98	BH9	BH9	BH10	BH10	BH11	BH11
Sample Depth (ft bgs):		13 - 15	0 - 2	2 - 4	1 - 3	7 - 9	13 - 15	0 - 2	2 - 4	1 - 3	7 - 9	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4
Date Collected:	Units	04/15/98	03/06/07	03/06/07	04/15/98	04/15/98	04/15/98	03/06/07	03/06/07	04/15/98	04/15/98	03/06/07	03/06/07	03/06/07	03/06/07	03/06/07	03/06/07
Semivolatile Organics (Cont'd.)																	
Ethyl Methacrylate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	mg/kg	NA	0.081 J	0.16 J	NA	NA	NA	0.051 J	0.084 J	NA	NA	21	0.14 J	0.038 J	0.082 J	0.58 J	0.0091 J
Fluorene	mg/kg	NA	0.010 J	0.14 J	NA	NA	NA	0.016 J	0.042 J	NA	NA	4.0 J	0.037 J	0.30 U	0.024 J	0.040 J	0.31 U
Hexachlorobenzene	mg/kg	NA	0.29 U	0.35 U	NA	NA	NA	0.29 U	0.31 U	NA	NA	5.6 U	0.31 U	0.30 U	0.28 U	1.2 U	0.31 U
Hexachlorobutadiene	mg/kg	NA	0.044 U	0.054 U	NA	NA	NA	0.043 U	0.048 U	NA	NA	0.85 U	0.046 U	0.045 U	0.042 U	0.18 U	0.048 U
Hexachlorocyclopentadiene	mg/kg	NA	0.29 U	0.35 U	NA	NA	NA	0.29 U	0.31 U	NA	NA	5.6 U	0.31 U	0.30 U	0.28 U	1.2 U	0.31 U
Hexachloroethane	mg/kg	NA	0.29 U	0.35 U	NA	NA	NA	0.29 U	0.31 U	NA	NA	5.6 U	0.31 U	0.30 U	0.28 U	1.2 U	0.31 U
Hexachlorophene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloropropene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	mg/kg	NA	0.025 J	0.35 U	NA	NA	NA	0.29 U	0.31 U	NA	NA	2.9 J	0.31 U	0.30 U	0.28 U	0.20 J	0.31 U
Isophorone	mg/kg	NA	0.29 U	0.56	NA	NA	NA	0.29 U	0.31 U	NA	NA	5.6 U	0.31 U	0.30 U	0.28 U	1.2 U	0.31 U
Isosafrole	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/kg	NA	0.12 J	0.74	NA	NA	NA	0.24 J	0.45	NA	NA	5.6 U	0.17 J	0.035 J	0.17 J	0.15 J	0.013 J
Nitrobenzene	mg/kg	NA	0.29 U	0.35 U	NA	NA	NA	0.29 U	0.31 U	NA	NA	5.6 U	0.31 U	0.30 U	0.28 U	1.2 U	0.31 U
N-Nitrosodiethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	mg/kg	NA	0.29 U	0.35 U	NA	NA	NA	0.29 U	0.31 U	NA	NA	5.6 U	0.31 U	0.30 U	0.28 U	1.2 U	0.31 U
N-Nitrosodiphenylamine	mg/kg	NA	0.29 U	0.35 U	NA	NA	NA	0.29 U	0.31 U	NA	NA	5.6 U	0.31 U	0.30 U	0.28 U	1.2 U	0.31 U
N-Nitrosomethylethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	mg/kg	NA	0.17 U	0.20 U	NA	NA	NA	0.16 U	0.18 U	NA	NA	3.2 U	0.17 U	0.17 U	0.16 U	0.68 U	0.18 U
Phenacetin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	mg/kg	NA	0.13 J	0.68	NA	NA	NA	0.20 J	0.33	NA	NA	23	0.32	0.072 J	0.13 J	0.45 J	0.31 U
Phenol	mg/kg	NA	0.14 J	0.35 U	NA	NA	NA	0.29 U	0.31 U	NA	NA	5.6 U	0.31 U	0.30 U	0.28 U	1.2 U	0.31 U
Pronamide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	mg/kg	NA	0.075 J	0.17 J	NA	NA	NA	0.040 J	0.078 J	NA	NA	17	0.15 J	0.033 J	0.056 J	0.58 J	0.010 J
Pyridine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	mg/kg	NA	0.29 U	0.059 J	NA	NA	NA	0.29 U	0.31 U	NA	NA	5.6 U	0.31 U	0.30 U	0.28 U	1.2 U	0.31 U
Semivolatile Organics-TCLP																	
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		BH06-98	BH7	BH7	BH07-98	BH07-98	BH07-98	BH8	BH8	BH08-98	BH08-98	BH9	BH9	BH10	BH10	BH11	BH11
Sample Depth (ft bgs):		13 - 15	0 - 2	2 - 4	1 - 3	7 - 9	13 - 15	0 - 2	2 - 4	1 - 3	7 - 9	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4
Date Collected:	Units	04/15/98	03/06/07	03/06/07	04/15/98	04/15/98	04/15/98	03/06/07	03/06/07	04/15/98	04/15/98	03/06/07	03/06/07	03/06/07	03/06/07	03/06/07	03/06/07
Semivolatile Organics-TCLP (Cont'd.)																	
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs																	
Aroclor-1016	mg/kg	0.33 U	0.29 U	0.35 U	0.33 U	0.33 U	170 U	0.29 U	0.31 U	0.33 U	0.33 U	0.28 U	0.31 U	0.30 U	0.28 U	0.30 U	0.31 U
Aroclor-1221	mg/kg	0.33 U	0.29 U	0.35 U	0.33 U	0.33 U	170 U	0.29 U	0.31 U	0.33 U	0.33 U	0.28 U	0.31 U	0.30 U	0.28 U	0.30 U	0.31 U
Aroclor-1232	mg/kg	0.33 U	0.29 U	0.35 U	0.33 U	0.33 U	170 U	0.29 U	0.31 U	0.33 U	0.33 U	0.28 U	0.31 U	0.30 U	0.28 U	0.30 U	0.31 U
Aroclor-1242	mg/kg	0.33 U	0.29 U	0.35 U	0.33 U	0.33 U	170 U	0.29 U	0.31 U	0.33 U	0.33 U	0.28 U	0.31 U	0.30 U	0.28 U	0.30 U	0.31 U
Aroclor-1248	mg/kg	0.33 U	0.29 U	0.35 U	0.33 U	0.33 U	170 U	0.29 U	0.31 U	0.33 U	0.33 U	0.28 U	0.31 U	0.30 U	0.28 U	0.30 U	0.31 U
Aroclor-1254	mg/kg	0.33 U	0.037 J	0.17 J	0.33 U	0.33 U	1,500	0.014 J	0.033 J	0.51	0.71	0.025 J	0.31 U	0.023 J	0.029 J	0.33	0.31 U
Aroclor-1260	mg/kg	0.33 U	0.29 U	0.35 U	0.33 U	0.33 U	170 U	0.29 U	0.31 U	0.33 U	0.33 U	0.28 U	0.31 U	0.30 U	0.28 U	0.30 U	0.31 U
Total PCBs	mg/kg	0.33 U	0.037 J	0.17 J	0.33 U	0.33 U	1,500	0.014 J	0.033 J	0.51	0.71	0.025 J	0.31 U	0.023 J	0.029 J	0.33	0.31 U
Organochlorine Pesticides																	
3-Methylcholanthrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDD	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroquinoline-1-oxide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

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Date Collected:	Units	04/15/98	03/06/07	03/06/07	04/15/98	04/15/98	04/15/98	03/06/07	03/06/07	04/15/98	04/15/98	03/06/07	03/06/07	03/06/07	03/06/07	03/06/07	03/06/07
Organochlorine Pesticides-TCLP																	
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Technical Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides																	
2,4,5-T	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides-TCLP																	
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans																	
2,3,7,8-TCDD	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																	
Total Petroleum Hydrocarbons - extractable (DRO)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		BH12	BH12	DW-1	DW-2	DW-3	DW-4	DW-5	DW-6	FS-1	FS-2	FS-3	FS-4	FS-5	FS-6	FS-7	FS-8
Sample Depth (ft bgs):		0 - 2	2 - 4	0 - 6	0 - 6	0 - 6	0 - 6	0 - 6	0 - 6	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1
Date Collected:	Units	03/06/07	03/06/07	10/06/98	10/06/98	10/06/98	10/06/98	10/06/98	10/06/98	06/12/95	06/12/95	06/12/95	06/12/95	06/12/95	06/12/95	06/12/95	06/12/95
Semivolatile Organics																	
1,2,3,4-Tetrachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,5-Tetrachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4,5-Tetrachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	.17 U [0.17 U	0.18 U	0.17 U
1,2-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	mg/kg	.30 U [0.30 U	0.29 U	NA	NA	NA	NA	NA	NA	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	.17 U [0.17 U	0.18 U	0.17 U
2,3,4,6-Tetrachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,5,6-Tetrachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	mg/kg	.30 U [0.30 U	0.29 U	NA	NA	NA	NA	NA	NA	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	.17 U [0.17 U	0.18 U	0.17 U
2,4,6-Trichlorophenol	mg/kg	.30 U [0.30 U	0.29 U	NA	NA	NA	NA	NA	NA	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	.17 U [0.17 U	0.18 U	0.17 U
2,4-Diaminotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	mg/kg	.30 U [0.30 U	0.29 U	NA	NA	NA	NA	NA	NA	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	.17 U [0.17 U	0.18 U	0.17 U
2,4-Dimethylphenol	mg/kg	.30 U [0.30 U	0.29 U	NA	NA	NA	NA	NA	NA	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	.17 U [0.17 U	0.18 U	0.17 U
2,4-Dinitrophenol	mg/kg	.17 U [0.17 U	0.17 U	NA	NA	NA	NA	NA	NA	3.4 U	0.87 U	0.90 U	0.89 UJ	0.86 U	.82 U [0.82 U	0.86 U	0.84 U
2,4-Dinitrotoluene	mg/kg	.30 U [0.30 U	0.29 U	NA	NA	NA	NA	NA	NA	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	.17 U [0.17 U	0.18 U	0.17 U
2,6-Dichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	mg/kg	.30 U [0.30 U	0.29 U	NA	NA	NA	NA	NA	NA	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	.17 U [0.17 U	0.18 U	0.17 U
2-Acetylaminofluorene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	mg/kg	.30 U [0.30 U	0.29 U	NA	NA	NA	NA	NA	NA	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	.17 U [0.17 U	0.18 U	0.17 U
2-Chlorophenol	mg/kg	.30 U [0.30 U	0.29 U	NA	NA	NA	NA	NA	NA	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	.17 U [0.17 U	0.18 U	0.17 U
2-Methylnaphthalene	mg/kg	023 J [0.038	0.058 J	NA	NA	NA	NA	NA	NA	0.26 J	0.14 J	0.24	0.30	0.13 J	0.11 J [0.20	0.24	0.22
2-Methylphenol	mg/kg	.30 U [0.30 U	0.29 U	NA	NA	NA	NA	NA	NA	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	.17 U [0.17 U	0.18 U	0.17 U
2-Naphthylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	mg/kg	.23 U [0.23 U	0.22 U	NA	NA	NA	NA	NA	NA	3.4 U	0.87 U	0.90 U	0.89 U	0.86 U	.82 U [0.82 U	0.86 U	0.84 U
2-Nitrophenol	mg/kg	.30 U [0.30 U	0.29 U	NA	NA	NA	NA	NA	NA	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	.17 U [0.17 U	0.18 U	0.17 U
2-Picoline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	mg/kg	1.8 U [1.8 U]	1.8 U	NA	NA	NA	NA	NA	NA	1.4 U	0.36 U	0.37 U	0.37 U	0.36 U	.34 U [0.34 U	0.35 U	0.35 U
3,3'-Dimethylbenzidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	mg/kg	.23 U [0.23 U	0.22 U	NA	NA	NA	NA	NA	NA	3.4 U	0.87 U	0.90 U	0.89 U	0.86 U	.82 U [0.82 U	0.86 U	0.84 U
4,4'-Methylene-bis(2-chloroaniline)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	mg/kg	.17 U [0.17 U	0.17 U	NA	NA	NA	NA	NA	NA	3.4 U	0.87 U	0.90 U	0.89 U	0.86 U	.82 U [0.82 U	0.86 U	0.84 U
4-Aminobiphenyl	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		BH12	BH12	DW-1	DW-2	DW-3	DW-4	DW-5	DW-6	FS-1	FS-2	FS-3	FS-4	FS-5	FS-6	FS-7	FS-8
Sample Depth (ft bgs):		0 - 2	2 - 4	0 - 6	0 - 6	0 - 6	0 - 6	0 - 6	0 - 6	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1
Date Collected:	Units	03/06/07	03/06/07	10/06/98	10/06/98	10/06/98	10/06/98	10/06/98	10/06/98	06/12/95	06/12/95	06/12/95	06/12/95	06/12/95	06/12/95	06/12/95	06/12/95
Semivolatile Organics (Cont'd.)																	
4-Bromophenyl-phenylether	mg/kg	.30 U [0.30 U	0.29 U	NA	NA	NA	NA	NA	NA	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	.17 U [0.17 U	0.18 U	0.17 U
4-Chloro-3-Methylphenol	mg/kg	.30 U [0.30 U	0.29 U	NA	NA	NA	NA	NA	NA	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	.17 U [0.17 U	0.18 U	0.17 U
4-Chloroaniline	mg/kg	.17 U [0.17 U	0.17 U	NA	NA	NA	NA	NA	NA	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	.17 U [0.17 U	0.053 J	0.17 U
4-Chlorobenzilate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	mg/kg	.30 U [0.30 U	0.29 U	NA	NA	NA	NA	NA	NA	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	.17 U [0.17 U	0.18 U	0.17 U
4-Methylphenol	mg/kg	.30 U [0.30 U	0.29 U	NA	NA	NA	NA	NA	NA	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	.17 U [0.17 U	0.18 U	0.17 U
4-Nitroaniline	mg/kg	.23 U [0.23 U	0.22 U	NA	NA	NA	NA	NA	NA	3.4 UJ	0.87 U	0.90 UJ	0.89 UJ	0.86 U	.82 U [0.82 U	0.86 U	0.84 U
4-Nitrophenol	mg/kg	.37 U [0.38 U	0.37 U	NA	NA	NA	NA	NA	NA	3.4 UJ	0.87 U	0.90 UJ	0.89 UJ	0.86 U	.82 U [0.82 U	0.86 U	0.84 U
4-Nitroquinoline-1-oxide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/kg	.30 U [0.30 U	0.068 J	NA	NA	NA	NA	NA	NA	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	.17 U [0.17 U	0.18 U	0.17 U
Acenaphthylene	mg/kg	076 J [0.011	0.035 J	NA	NA	NA	NA	NA	NA	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	.17 U [0.17 U	0.18 U	0.17 U
Acetophenone	mg/kg	.30 U [0.30 U	0.29 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/kg	092 J [0.008	0.023 J	NA	NA	NA	NA	NA	NA	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	.17 U [0.17 U	0.11 J	0.17 U
Aramite	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	mg/kg	045 U [0.046	0.044 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	mg/kg	.30 U [0.30 U	0.29 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/kg	036 J [0.028	0.060 J	NA	NA	NA	NA	NA	NA	0.71 U	0.18 U	0.033 J	0.028 J	0.18 U	.17 U [0.17 U	0.18 U	0.17 U
Benzo(a)pyrene	mg/kg	035 J [0.021	0.061 J	NA	NA	NA	NA	NA	NA	0.17 J	0.18 U	0.18 UJ	0.18 U	0.18 U	.17 U [0.17 U	0.18 U	0.17 U
Benzo(b)fluoranthene	mg/kg	046 J [0.037	0.066 J	NA	NA	NA	NA	NA	NA	0.47 J	0.18 U	0.18 UJ	0.18 U	0.18 U	.17 U [0.17 U	0.18 U	0.17 U
Benzo(g,h,i)perylene	mg/kg	.30 U [0.30 U	0.031 J	NA	NA	NA	NA	NA	NA	0.71 UJ	0.18 U	0.18 UJ	0.18 U	0.18 U	.17 U [0.17 U	0.18 U	0.17 U
Benzo(k)fluoranthene	mg/kg	021 J [0.0099	0.043 J	NA	NA	NA	NA	NA	NA	0.71 UJ	0.18 U	0.18 UJ	0.18 U	0.18 U	.17 U [0.17 U	0.18 U	0.17 U
Benzoic Acid	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	mg/kg	.30 U [0.30 U	0.29 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	mg/kg	.30 U [0.30 U	0.29 U	NA	NA	NA	NA	NA	NA	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	.17 U [0.17 U	0.18 U	0.17 U
bis(2-Chloroethyl)ether	mg/kg	090 U [0.091	0.089 U	NA	NA	NA	NA	NA	NA	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	.17 U [0.17 U	0.18 U	0.17 U
bis(2-Chloroisopropyl)ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	mg/kg	.30 U [0.30 U	0.29 U	NA	NA	NA	NA	NA	NA	0.71 U	0.18 U	0.48	0.18 U	0.18 U	.17 U [0.17 U	0.18 U	0.17 U
Butylbenzylphthalate	mg/kg	.30 U [0.30 U	0.29 U	NA	NA	NA	NA	NA	NA	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	.17 U [0.17 U	0.18 U	0.17 U
Caprolactam	mg/kg	.30 U [0.30 U	0.29 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	mg/kg	.30 U [0.30 U	0.29 U	NA	NA	NA	NA	NA	NA	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	.17 U [0.17 U	0.18 U	0.17 U
Chrysene	mg/kg	047 J [0.034	0.072 J	NA	NA	NA	NA	NA	NA	0.26 J	0.18 U	0.061 J	0.039 J	0.18 U	.17 U [0.17 U	0.18 U	0.17 U
Diallate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	mg/kg	.30 U [0.30 U	0.29 U	NA	NA	NA	NA	NA	NA	0.71 UJ	0.18 U	0.18 UJ	0.18 U	0.18 U	.17 U [0.17 U	0.18 U	0.17 U
Dibenzofuran	mg/kg	.30 U [0.30 U	0.29 U	NA	NA	NA	NA	NA	NA	0.71 U	0.18 U	0.044 J	0.046 J	0.18 U	17 U [0.046	0.047 J	0.040 J
Diethylphthalate	mg/kg	.30 U [0.30 U	0.29 U	NA	NA	NA	NA	NA	NA	0.71 U	0.18 U	0.18 U	0.18 UJ	0.18 U	.17 U [0.17 U	0.18 U	0.17 U
Dimethylphthalate	mg/kg	.30 U [0.30 U	0.29 U	NA	NA	NA	NA	NA	NA	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	.17 U [0.17 U	0.18 U	0.17 U
Di-n-Butylphthalate	mg/kg	.30 U [0.30 U	0.037 J	NA	NA	NA	NA	NA	NA	0.71 U	0.020 J	0.23	0.16 J	0.18 U	.17 U [0.17 U	0.18 U	0.021 J
Di-n-Octylphthalate	mg/kg	.30 U [0.30 U	0.29 U	NA	NA	NA	NA	NA	NA	0.71 UJ	0.18 U	0.18 UJ	0.18 U	0.18 U	.17 U [0.17 U	0.18 U	0.17 U
Diphenylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Sample Depth (ft bgs):		0 - 2	2 - 4	0 - 6	0 - 6	0 - 6	0 - 6	0 - 6	0 - 6	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1
Date Collected:	Units	03/06/07	03/06/07	10/06/98	10/06/98	10/06/98	10/06/98	10/06/98	10/06/98	06/12/95	06/12/95	06/12/95	06/12/95	06/12/95	06/12/95	06/12/95	06/12/95
Semivolatile Organics (Cont'd.)																	
Ethyl Methacrylate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	mg/kg	073 J [0.049	0.13 J	NA	NA	NA	NA	NA	NA	0.21 J	0.18 U	0.067 J	0.040 J	0.18 U	.17 U [0.17 U	0.18 U	0.17 U
Fluorene	mg/kg	.30 U [0.30 U	0.029 J	NA	NA	NA	NA	NA	NA	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	.17 U [0.17 U	0.18 U	0.17 U
Hexachlorobenzene	mg/kg	.30 U [0.30 U	0.29 U	NA	NA	NA	NA	NA	NA	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	.17 U [0.17 U	0.18 U	0.17 U
Hexachlorobutadiene	mg/kg	045 U [0.046	0.044 U	NA	NA	NA	NA	NA	NA	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	.17 U [0.17 U	0.18 U	0.17 U
Hexachlorocyclopentadiene	mg/kg	.30 U [0.30 U	0.29 U	NA	NA	NA	NA	NA	NA	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	.17 U [0.17 U	0.18 U	0.17 U
Hexachloroethane	mg/kg	.30 U [0.30 U	0.29 U	NA	NA	NA	NA	NA	NA	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	.17 U [0.17 U	0.18 U	0.17 U
Hexachlorophene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloropropene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	mg/kg	021 J [0.30 U	0.030 J	NA	NA	NA	NA	NA	NA	0.71 UJ	0.18 U	0.18 UJ	0.18 UJ	0.18 U	.17 U [0.17 U	0.18 U	0.17 U
Isophorone	mg/kg	.30 U [0.30 U	0.29 U	NA	NA	NA	NA	NA	NA	0.39 J	0.65	0.68	0.093 J	0.18 U	.17 U [0.17 U	0.25	0.96
Isosafrole	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/kg	014 J [0.025	0.064 J	NA	NA	NA	NA	NA	NA	0.20 J	0.093 J	0.15 J	0.17 J	0.097 J	086 J [0.14	0.17 J	0.16 J
Nitrobenzene	mg/kg	.30 U [0.30 U	0.29 U	NA	NA	NA	NA	NA	NA	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	.17 U [0.17 U	0.18 U	0.17 U
N-Nitrosodiethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	mg/kg	.30 U [0.30 U	0.29 U	NA	NA	NA	NA	NA	NA	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	.17 U [0.17 U	0.18 U	0.17 U
N-Nitrosodiphenylamine	mg/kg	.30 U [0.30 U	0.29 U	NA	NA	NA	NA	NA	NA	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	.17 U [0.17 U	0.18 U	0.17 U
N-Nitrosomethylethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	mg/kg	.17 U [0.17 U	0.17 U	NA	NA	NA	NA	NA	NA	3.4 U	0.87 U	0.90 U	0.89 UJ	0.86 U	.82 U [0.82 U	0.86 U	0.84 U
Phenacetin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	mg/kg	062 J [0.041	0.11 J	NA	NA	NA	NA	NA	NA	0.17 J	0.087 J	0.13 J	0.11 J	0.061 J	060 J [0.11	0.10 J	0.11 J
Phenol	mg/kg	.30 U [0.30 U	0.29 U	NA	NA	NA	NA	NA	NA	0.14 J	0.060 J	0.12 J	0.18 J	0.18 U	.17 U [0.17 U	0.024 J	0.072 J
Pronamide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	mg/kg	076 J [0.054	0.14 J	NA	NA	NA	NA	NA	NA	0.55 J	0.18 U	0.088 J	0.047 J	0.18 U	.17 U [0.17 U	0.18 U	0.17 U
Pyridine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	mg/kg	.30 U [0.30 U	0.29 U	NA	NA	NA	NA	NA	NA	0.71 U	0.18 U	0.18 U	0.18 U	0.18 U	.17 U [0.17 U	0.18 U	0.17 U
Semivolatile Organics-TCLP																	
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		BH12	BH12	DW-1	DW-2	DW-3	DW-4	DW-5	DW-6	FS-1	FS-2	FS-3	FS-4	FS-5	FS-6	FS-7	FS-8
Sample Depth (ft bgs):		0 - 2	2 - 4	0 - 6	0 - 6	0 - 6	0 - 6	0 - 6	0 - 6	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1
Date Collected:	Units	03/06/07	03/06/07	10/06/98	10/06/98	10/06/98	10/06/98	10/06/98	10/06/98	06/12/95	06/12/95	06/12/95	06/12/95	06/12/95	06/12/95	06/12/95	06/12/95
Semivolatile Organics-TCLP (Cont'd.)																	
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs																	
Aroclor-1016	mg/kg	1.9 U [1.9 U]	0.29 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 UJ	.33 U [0.33 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	.17 U [0.17 U	0.18 U	0.17 U
Aroclor-1221	mg/kg	1.9 U [1.9 U]	0.29 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 UJ	.33 U [0.33 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	.17 U [0.17 U	0.18 U	0.17 U
Aroclor-1232	mg/kg	1.9 U [1.9 U]	0.29 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 UJ	.33 U [0.33 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	.17 U [0.17 U	0.18 U	0.17 U
Aroclor-1242	mg/kg	1.9 U [1.9 U]	0.29 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 UJ	.33 U [0.33 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	.17 U [0.17 U	0.18 U	0.17 U
Aroclor-1248	mg/kg	1.9 U [1.9 U]	0.29 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 UJ	.33 U [0.33 U	0.18 U	0.18 U	0.18 U	0.18 U	0.25	.17 U [0.17 U	0.18 U	0.17 U
Aroclor-1254	mg/kg	1.9 U [1.9 U]	0.11 J	0.33 UJ	0.33 UJ	0.33 U	0.33 UJ	0.33 UJ	33 UJ [0.33 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	.17 U [0.17 U	0.18 U	0.17 U
Aroclor-1260	mg/kg	11 [11]	0.29 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 UJ	.33 U [0.33 U	0.24	0.18	0.36	0.050 J	0.18 U	020 J [0.020	0.18 U	0.020 J
Total PCBs	mg/kg	11 [11]	0.11 J	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	.33 U [0.33 U	0.24	0.18	0.36	0.050 J	0.25	020 J [0.020	0.18 U	0.020 J
Organochlorine Pesticides																	
3-Methylcholanthrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDD	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroquinoline-1-oxide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		BH12	BH12	DW-1	DW-2	DW-3	DW-4	DW-5	DW-6	FS-1	FS-2	FS-3	FS-4	FS-5	FS-6	FS-7	FS-8
Sample Depth (ft bgs):		0 - 2	2 - 4	0 - 6	0 - 6	0 - 6	0 - 6	0 - 6	0 - 6	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1
Date Collected:	Units	03/06/07	03/06/07	10/06/98	10/06/98	10/06/98	10/06/98	10/06/98	10/06/98	06/12/95	06/12/95	06/12/95	06/12/95	06/12/95	06/12/95	06/12/95	06/12/95
Organochlorine Pesticides-TCLP																	
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Technical Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides																	
2,4,5-T	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides-TCLP																	
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans																	
2,3,7,8-TCDD	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																	
Total Petroleum Hydrocarbons - extractable (DRO)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		MW-126WT	MW-145WT	MW-183WT	NS-1	NS-7	NS-8	NS-9	NS-10	NS-RS-4	PL-1	PL-2	PL-3	PL-4	RS-1	RS-2	RS-3
Sample Depth (ft bgs):		14 - 16	7 - 17	8 - 8.5	0 - 14	0 - 4.5	0 - 10	0 - 4.5	0 - 10	2.5 - 3	0.75 - 1.21	0.75 - 1.67	0.67 - 1.67	0.75 - 1.5	0 - 1	0 - 1	0 - 1
Date Collected:	Units	02/08/95	06/08/95	07/24/00	06/23/95	06/21/95	06/21/95	06/21/95	06/21/95	06/13/95	08/10/01	08/10/01	08/10/01	08/10/01	06/13/95	06/13/95	06/13/95
Semivolatile Organics																	
1,2,3,4-Tetrachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA
1,2,3,5-Tetrachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA
1,2,4,5-Tetrachlorobenzene	mg/kg	0.19 U	NA	NA	NA	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	0.19 U	0.22 U	NA	0.24 U	0.21 U	0.24 U	0.21 U	0.22 U	0.21 U	NA	0.36 U	NA	NA	0.17 U	0.90 U	0.18 U
1,2-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	mg/kg	R	NA	NA	NA	NA	NA	NA	NA	R	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	mg/kg	0.19 U	NA	NA	NA	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.36 U	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	mg/kg	3.8 UJ	NA	NA	NA	NA	NA	NA	NA	4.2 U	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	mg/kg	0.19 U	NA	NA	NA	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	mg/kg	0.19 U	0.22 U	NA	0.24 U	0.21 UJ	0.24 UJ	0.21 UJ	0.22 U	0.21 U	0.42 U	.36 U [0.41 U	0.37 U	0.36 U	0.17 U	0.90 U	0.18 U
2,3,4,6-Tetrachlorophenol	mg/kg	0.91 U	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA
2,3,5,6-Tetrachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	mg/kg	0.19 U	0.22 U	NA	0.24 U	0.21 U	0.24 U	0.21 U	0.22 U	0.21 U	0.42 U	.36 U [0.41 U	0.37 U	0.36 U	0.17 U	0.90 U	0.18 U
2,4,6-Trichlorophenol	mg/kg	0.19 U	0.22 U	NA	0.24 U	0.21 U	0.24 U	0.21 U	0.22 U	0.21 U	0.42 U	.36 U [0.41 U	0.37 U	0.36 U	0.17 U	0.90 U	0.18 U
2,4-Diaminotoluene	mg/kg	0.19 UJ	NA	NA	NA	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	mg/kg	0.19 U	0.22 U	NA	0.24 U	0.21 U	0.24 U	0.21 U	0.22 U	0.21 U	0.42 U	.36 U [0.41 U	0.37 U	0.36 U	0.17 U	0.90 U	0.18 U
2,4-Dimethylphenol	mg/kg	0.19 U	0.22 U	NA	0.24 U	0.21 U	0.24 U	0.21 U	0.22 U	0.21 U	0.42 U	.36 U [0.41 U	0.37 U	0.36 U	0.17 U	0.90 U	0.18 U
2,4-Dinitrophenol	mg/kg	0.91 U	1.1 U	NA	1.2 UJ	1.0 U	1.2 U	1.0 U	1.1 U	1.0 U	0.84 U	.72 U [0.82 U	0.74 U	0.71 U	0.84 U	4.3 U	0.86 U
2,4-Dinitrotoluene	mg/kg	0.19 U	0.22 U	NA	0.24 U	0.21 U	0.24 U	0.21 U	0.22 U	0.21 U	0.42 U	.36 U [0.41 U	0.37 U	0.36 U	0.17 U	0.90 U	0.18 U
2,6-Dichlorophenol	mg/kg	0.19 U	NA	NA	NA	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	mg/kg	0.19 U	0.22 U	NA	0.24 U	0.21 U	0.24 U	0.21 U	0.22 U	0.21 U	0.42 U	.36 U [0.41 U	0.37 U	0.36 U	0.17 U	0.90 U	0.18 U
2-Acetylaminofluorene	mg/kg	0.38 U	NA	NA	NA	NA	NA	NA	NA	0.42 U	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	mg/kg	0.19 U	0.22 U	NA	0.24 U	0.21 U	0.24 U	0.21 U	0.22 U	0.21 U	0.42 U	.36 U [0.41 U	0.37 U	0.36 U	0.17 U	0.90 U	0.18 U
2-Chlorophenol	mg/kg	0.19 U	0.22 U	NA	0.24 U	0.21 U	0.24 U	0.21 U	0.22 U	0.21 U	0.42 U	.36 U [0.41 U	0.37 U	0.36 U	0.17 U	0.90 U	0.18 U
2-Methylnaphthalene	mg/kg	0.19 U	0.030 J	NA	0.24 U	0.21 U	0.24 U	0.21 U	0.22 U	0.21 U	0.42 U	056 J [0.41 U	0.37 U	0.24 J	0.73	0.30 J	0.14 J
2-Methylphenol	mg/kg	0.19 U	0.22 U	NA	0.24 U	0.21 U	0.24 U	0.21 U	0.22 U	0.21 U	0.42 U	.36 U [0.41 U	0.37 U	0.36 U	0.17 U	0.90 U	0.18 U
2-Naphthylamine	mg/kg	0.19 U	NA	NA	NA	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	mg/kg	0.91 U	1.1 U	NA	1.2 U	1.0 UJ	1.2 UJ	1.0 UJ	1.1 U	1.0 U	0.42 U	.36 U [0.41 U	0.37 U	0.36 U	0.84 U	4.3 U	0.86 U
2-Nitrophenol	mg/kg	0.19 U	0.22 U	NA	0.24 U	0.21 U	0.24 U	0.21 U	0.22 U	0.21 U	R	.36 U [0.41 U	0.37 U	0.36 U	0.17 U	0.90 U	0.18 U
2-Picoline	mg/kg	0.38 U	NA	NA	NA	NA	NA	NA	NA	0.42 U	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	mg/kg	0.38 U	0.44 U	NA	0.49 U	0.41 U	0.48 U	0.43 U	0.44 U	0.42 U	0.42 U	.36 U [0.41 U	0.37 U	0.36 U	0.35 U	1.8 U	0.35 U
3,3'-Dimethylbenzidine	mg/kg	0.91 U	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	2.1 U	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	mg/kg	0.19 U	NA	NA	NA	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	mg/kg	0.91 U	1.1 U	NA	1.2 U	1.0 U	1.2 U	1.0 U	1.1 U	1.0 U	0.42 U	.36 U [0.41 U	0.37 U	0.36 U	0.84 U	4.3 U	0.86 U
4,4'-Methylene-bis(2-chloroaniline)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	mg/kg	0.91 U	1.1 U	NA	1.2 U	1.0 U	1.2 U	1.0 U	1.1 U	1.0 U	0.84 U	.72 U [0.82 U	0.74 U	0.71 U	0.84 U	4.3 U	0.86 U
4-Aminobiphenyl	mg/kg	0.91 U	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:	Units	MW-126WT	MW-145WT	MW-183WT	NS-1	NS-7	NS-8	NS-9	NS-10	NS-RS-4	PL-1	PL-2	PL-3	PL-4	RS-1	RS-2	RS-3
Sample Depth (ft bgs):		14 - 16	7 - 17	8 - 8.5	0 - 14	0 - 4.5	0 - 10	0 - 4.5	0 - 10	2.5 - 3	0.75 - 1.21	0.75 - 1.67	0.67 - 1.67	0.75 - 1.5	0 - 1	0 - 1	0 - 1
Date Collected:		02/08/95	06/08/95	07/24/00	06/23/95	06/21/95	06/21/95	06/21/95	06/21/95	06/13/95	08/10/01	08/10/01	08/10/01	08/10/01	06/13/95	06/13/95	06/13/95
Semivolatile Organics (Cont'd.)																	
4-Bromophenyl-phenylether	mg/kg	0.19 U	0.22 U	NA	0.24 U	0.21 U	0.24 U	0.21 U	0.22 U	0.21 U	0.42 U	.36 U [0.41 U	0.37 U	0.36 U	0.17 U	0.90 U	0.18 U
4-Chloro-3-Methylphenol	mg/kg	0.19 U	0.22 U	NA	0.24 U	0.21 U	0.24 U	0.21 U	0.22 U	0.21 U	0.42 U	.36 U [0.41 U	0.37 U	0.36 U	0.17 U	0.90 U	0.18 U
4-Chloroaniline	mg/kg	0.19 U	0.22 U	NA	0.24 U	0.21 U	0.24 U	0.21 U	0.22 U	0.21 U	0.42 U	.36 U [0.41 U	0.37 U	0.36 U	0.17 U	0.90 U	0.18 U
4-Chlorobenzilate	mg/kg	0.19 U	NA	NA	NA	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	mg/kg	0.19 U	0.22 U	NA	0.24 U	0.21 U	0.24 U	0.21 U	0.22 U	0.21 U	0.42 U	.36 U [0.41 U	0.37 U	0.36 U	0.17 U	0.90 U	0.18 U
4-Methylphenol	mg/kg	0.19 U	0.22 U	NA	0.24 U	0.21 U	0.24 U	0.21 U	0.22 U	0.21 U	0.42 U	.36 U [0.41 U	0.37 U	0.36 U	0.17 U	0.90 U	0.18 U
4-Nitroaniline	mg/kg	0.91 U	1.1 U	NA	1.2 U	1.0 U	1.2 U	1.0 U	1.1 U	1.0 U	0.42 U	.36 U [0.41 U	0.37 U	0.36 U	0.84 U	4.3 UJ	0.86 UJ
4-Nitrophenol	mg/kg	0.91 U	1.1 U	NA	1.2 U	1.0 U	1.2 U	1.0 U	1.1 U	1.0 U	0.42 U	R [R]	R	R	0.84 U	4.3 UJ	0.86 UJ
4-Nitroquinoline-1-oxide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	2.1 UJ	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	mg/kg	0.91 U	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	mg/kg	0.19 U	NA	NA	NA	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	mg/kg	1.9 U	NA	NA	NA	NA	NA	NA	NA	2.1 U	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	mg/kg	1.8 U	NA	NA	NA	NA	NA	NA	NA	2.0 U	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/kg	0.19 U	0.12 J	NA	0.24 U	0.21 U	0.24 U	0.21 U	0.22 U	0.21 U	0.42 U	.36 U [0.41 U	0.37 U	0.36 U	0.17 U	0.90 U	0.18 U
Acenaphthylene	mg/kg	0.19 U	0.22 U	NA	0.24 U	0.21 U	0.24 U	0.21 U	0.22 U	0.21 U	0.42 U	.36 U [0.41 U	0.37 U	0.36 U	0.17 U	0.90 U	0.18 U
Acetophenone	mg/kg	0.19 U	NA	NA	NA	NA	NA	NA	NA	0.21 U	0.42 U	.36 U [0.41 U	0.37 U	0.36 U	NA	NA	NA
Aniline	mg/kg	0.19 U	NA	NA	NA	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/kg	0.19 U	0.35	NA	0.24 U	0.21 U	0.24 U	0.21 U	0.22 U	0.21 U	0.42 U	.36 U [0.41 U	0.37 U	0.36 U	0.091 J	0.90 U	0.026 J
Aramite	mg/kg	0.91 UJ	NA	NA	NA	NA	NA	NA	NA	1.0 UJ	NA	NA	NA	NA	NA	NA	NA
Atrazine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.42 U	.36 U [0.41 U	0.37 U	0.36 U	NA	NA	NA
Benzaldehyde	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.42 U	.36 U [0.41 U	0.37 U	0.36 U	NA	NA	NA
Benzidine	mg/kg	0.19 UJ	NA	NA	NA	NA	NA	NA	NA	0.21 UJ	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/kg	NA	0.60	NA	0.24 U	0.21 U	0.24 U	0.21 U	0.22 U	0.21 U	0.42 U	36 U [0.070	0.37 U	0.044 J	0.15 J	0.22 J	0.14 J
Benzo(a)pyrene	mg/kg	0.19 U	0.41	NA	0.24 U	0.21 U	0.050 J	0.050 J	0.22 U	0.21 U	0.42 U	36 U [0.074	0.37 U	0.36 U	0.11 J	0.22 J	0.12 J
Benzo(b)fluoranthene	mg/kg	0.19 U	0.59	NA	0.24 U	0.21 U	0.24 U	0.21 U	0.22 U	0.21 U	0.42 U	36 U [0.078	0.37 U	0.046 J	0.16 J	0.46 J	0.30
Benzo(g,h,i)perylene	mg/kg	0.19 UJ	0.12 J	NA	0.24 U	0.21 U	0.24 U	0.21 U	0.22 U	0.21 U	0.42 U	36 U [0.045	0.37 U	0.36 U	0.067 J	0.90 UJ	0.096 J
Benzo(k)fluoranthene	mg/kg	0.19 U	0.22 U	NA	0.24 U	0.21 U	0.24 U	0.21 U	0.22 U	0.21 U	0.42 U	042 J [0.044	0.37 U	0.36 U	0.046 J	0.90 UJ	0.18 U
Benzoic Acid	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	0.42 U	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	mg/kg	0.19 U	NA	NA	NA	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA
Biphenyl	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.42 U	.36 U [0.41 U	0.37 U	0.36 U	NA	NA	NA
bis(2-Chloroethoxy)methane	mg/kg	0.19 U	0.22 U	NA	0.24 U	0.21 U	0.24 U	0.21 U	0.22 U	0.21 U	0.42 U	.36 U [0.41 U	0.37 U	0.36 U	0.17 U	0.90 U	0.18 U
bis(2-Chloroethyl)ether	mg/kg	0.19 U	0.22 U	NA	0.24 U	0.21 U	0.24 U	0.21 U	0.22 U	0.21 U	0.42 U	.36 U [0.41 U	0.37 U	0.36 U	0.17 U	0.90 U	0.18 U
bis(2-Chloroisopropyl)ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	mg/kg	0.19 U	0.22 U	NA	0.33	0.21 U	0.24 U	0.21 U	0.22 U	0.21 U	0.42 U	.36 U [0.41 U	0.37 U	0.36 U	0.17 U	0.90 U	0.074 J
Butylbenzylphthalate	mg/kg	0.19 U	0.22 U	NA	0.25	0.21 U	0.24 U	0.21 U	0.22 U	0.21 U	0.42 U	.36 U [0.41 U	0.37 U	0.36 U	0.17 U	9.2	0.18 U
Caprolactam	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.42 U	.36 U [0.41 U	0.37 U	0.36 U	NA	NA	NA
Carbazole	mg/kg	0.19 U	0.12 J	NA	0.24 U	0.21 U	0.24 U	0.21 U	0.22 U	0.21 U	0.42 U	.36 U [0.41 U	0.37 U	0.36 U	0.17 U	0.90 U	0.18 U
Chrysene	mg/kg	0.19 U	0.72	NA	0.24 U	0.21 U	0.24 U	0.21 U	0.22 U	0.21 U	0.42 U	058 J [0.093	0.37 U	0.11 J	0.18	0.35 J	0.19
Diallate	mg/kg	0.19 U	NA	NA	NA	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	mg/kg	0.19 UJ	0.049 J	NA	0.24 U	0.21 U	0.24 U	0.21 U	0.22 U	0.21 U	0.42 U	.36 U [0.41 U	0.37 U	0.36 U	0.17 U	0.90 UJ	0.18 U
Dibenzofuran	mg/kg	0.19 U	0.054 J	NA	0.24 U	0.21 U	0.24 U	0.21 U	0.22 U	0.21 U	0.42 U	.36 U [0.41 U	0.37 U	0.043 J	0.19	0.90 U	0.036 J
Diethylphthalate	mg/kg	0.19 U	0.22 U	NA	0.24 U	0.21 U	0.24 U	0.21 U	0.22 U	0.21 U	0.42 U	.36 U [0.41 U	0.37 U	0.36 U	0.17 U	0.90 U	0.18 U
Dimethylphthalate	mg/kg	0.19 U	0.22 U	NA	0.24 U	0.21 U	0.24 U	0.21 U	0.22 U	0.21 U	0.42 U	.36 U [0.41 U	0.37 U	0.36 U	0.17 U	0.90 U	0.18 U
Di-n-Butylphthalate	mg/kg	0.20 U	2.8	NA	3.0	0.21 U	0.24 U	0.21 U	0.22 U	3.2	0.42 U	.36 U [0.41 U	0.37 U	0.36 U	0.046 J	0.90 U	0.11 J
Di-n-Octylphthalate	mg/kg	0.19 U	0.22 U	NA	0.24 U	0.21 U	0.24 U	0.21 U	0.22 U	0.21 U	0.42 U	.36 U [0.41 U	0.37 U	0.36 U	0.17 U	0.90 UJ	0.18 U
Diphenylamine	mg/kg	0.19 U	NA	NA	NA	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		MW-126WT	MW-145WT	MW-183WT	NS-1	NS-7	NS-8	NS-9	NS-10	NS-RS-4	PL-1	PL-2	PL-3	PL-4	RS-1	RS-2	RS-3
Sample Depth (ft bgs):		14 - 16	7 - 17	8 - 8.5	0 - 14	0 - 4.5	0 - 10	0 - 4.5	0 - 10	2.5 - 3	0.75 - 1.21	0.75 - 1.67	0.67 - 1.67	0.75 - 1.5	0 - 1	0 - 1	0 - 1
Date Collected:	Units	02/08/95	06/08/95	07/24/00	06/23/95	06/21/95	06/21/95	06/21/95	06/21/95	06/13/95	08/10/01	08/10/01	08/10/01	08/10/01	06/13/95	06/13/95	06/13/95
Semivolatile Organics (Cont'd.)																	
Ethyl Methacrylate	mg/kg	0.0057 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	mg/kg	0.19 U	NA	NA	NA	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	mg/kg	0.19 U	1.5	NA	0.24 U	0.21 U	0.24 U	0.21 U	0.22 U	0.21 U	0.42 U	.060 J [0.18	0.37 U	0.36 U	0.32	0.41 J	0.23
Fluorene	mg/kg	0.19 U	0.13 J	NA	0.24 U	0.21 U	0.24 U	0.21 U	0.22 U	0.21 U	0.42 U	.36 U [0.41 U	0.37 U	0.099 J	0.056 J	0.90 U	0.18 U
Hexachlorobenzene	mg/kg	0.19 U	0.22 U	NA	0.24 U	0.21 U	0.24 U	0.21 U	0.22 U	0.21 U	0.42 U	.36 U [0.41 U	0.37 U	0.36 U	0.17 U	0.90 U	0.18 U
Hexachlorobutadiene	mg/kg	0.19 U	0.22 U	NA	0.24 U	0.21 U	0.24 U	0.21 U	0.22 U	0.21 U	0.42 U	.36 U [0.41 U	0.37 U	0.36 U	0.17 U	0.90 U	0.18 U
Hexachlorocyclopentadiene	mg/kg	0.19 U	0.22 U	NA	0.24 U	0.21 U	0.24 U	0.21 U	0.22 U	0.21 U	0.42 U	.36 U [0.41 U	0.37 U	0.36 U	0.17 U	0.90 U	0.18 U
Hexachloroethane	mg/kg	0.19 U	0.22 U	NA	0.24 U	0.21 U	0.24 U	0.21 U	0.22 U	0.21 U	0.42 U	.36 U [0.41 U	0.37 U	0.36 U	0.17 U	0.90 U	0.18 U
Hexachlorophene	mg/kg	0.19 UJ	NA	NA	NA	NA	NA	NA	NA	0.21 UJ	NA	NA	NA	NA	NA	NA	NA
Hexachloropropene	mg/kg	1.9 U	NA	NA	NA	NA	NA	NA	NA	2.1 U	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	mg/kg	0.19 U	0.13 J	NA	0.24 U	0.21 U	0.24 U	0.21 U	0.22 U	0.21 U	0.42 U	.36 U [0.41 U	0.37 U	0.36 U	0.046 J	0.90 UJ	0.068 J
Isophorone	mg/kg	0.19 U	0.22 U	NA	0.24 U	0.21 U	0.24 U	0.21 U	0.22 U	0.21 U	0.42 U	.36 U [0.41 U	0.37 U	0.36 U	0.17 U	0.90 U	0.18 U
Isosafrole	mg/kg	0.19 U	NA	NA	NA	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	mg/kg	1.9 U	NA	NA	NA	NA	NA	NA	NA	2.1 U	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	mg/kg	0.19 U	NA	NA	NA	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/kg	0.19 U	0.22 U	NA	0.24 U	0.21 U	0.24 U	0.21 U	0.22 U	0.21 U	0.42 U	055 J [0.41	0.37 U	0.15 J	0.49	0.26 J	0.089 J
Nitrobenzene	mg/kg	0.19 U	0.22 U	NA	0.24 U	0.21 U	0.24 U	0.21 U	0.22 U	0.21 U	0.42 U	.36 U [0.41 U	0.37 U	0.36 U	0.17 U	0.90 U	0.18 U
N-Nitrosodiethylamine	mg/kg	0.19 U	NA	NA	NA	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	mg/kg	0.19 U	NA	NA	NA	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	mg/kg	0.19 U	NA	NA	NA	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	mg/kg	0.19 U	0.22 U	NA	0.24 U	0.21 UJ	0.24 UJ	0.21 UJ	0.22 U	0.21 U	0.42 U	.36 U [0.41 U	0.37 U	0.36 U	0.17 U	0.90 U	0.18 U
N-Nitrosodiphenylamine	mg/kg	0.19 U	0.22 U	NA	0.24 U	0.21 U	0.24 U	0.21 U	0.22 U	0.21 U	0.42 U	.36 U [0.41 U	0.37 U	0.36 U	0.17 U	0.90 U	0.18 U
N-Nitrosomethylethylamine	mg/kg	0.19 U	NA	NA	NA	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	mg/kg	0.19 U	NA	NA	NA	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	mg/kg	0.19 U	NA	NA	NA	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	mg/kg	0.19 U	NA	NA	NA	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	mg/kg	0.19 U	NA	NA	NA	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	mg/kg	0.38 U	NA	NA	NA	NA	NA	NA	NA	0.42 U	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	mg/kg	0.19 U	NA	NA	NA	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	mg/kg	0.91 U	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	mg/kg	0.91 U	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	mg/kg	0.91 U	1.1 U	NA	1.2 UJ	1.0 U	1.2 U	1.0 U	1.1 U	1.0 U	0.42 U	.36 U [0.41 U	0.37 U	0.36 U	0.84 U	4.3 U	0.86 U
Phenacetin	mg/kg	0.91 U	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	mg/kg	0.19 U	1.0	NA	0.24 U	0.21 U	0.24 U	0.21 U	0.22 U	0.21 U	0.42 U	.11 J [0.14 J	0.37 U	0.28 J	0.60	0.33 J	0.17 J
Phenol	mg/kg	0.19 U	0.22 U	NA	0.24 U	0.21 U	0.24 U	0.21 U	0.22 U	0.21 U	0.42 U	.36 U [0.41 U	0.37 U	0.36 U	0.024 J	0.90 U	0.18 U
Pronamide	mg/kg	0.38 U	NA	NA	NA	NA	NA	NA	NA	0.42 U	NA	NA	NA	NA	NA	NA	NA
Pyrene	mg/kg	0.19 U	0.96	NA	0.24 U	0.21 U	0.24 U	0.21 U	0.22 U	0.21 U	0.42 U	.054 J [0.13	0.37 U	0.12 J	0.30	0.53 J	0.26
Pyridine	mg/kg	0.19 U	NA	NA	NA	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA
Safrole	mg/kg	0.19 U	NA	NA	NA	NA	NA	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA
Sulfotep	mg/kg	0.91 U	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	mg/kg	0.19 U	0.22 U	NA	0.24 U	0.21 U	0.24 U	0.21 U	0.22 U	0.21 U	0.42 U	.36 U [0.41 U	0.37 U	0.36 U	0.17 U	0.90 U	0.18 U
Semivolatile Organics-TCLP																	
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		MW-126WT	MW-145WT	MW-183WT	NS-1	NS-7	NS-8	NS-9	NS-10	NS-RS-4	PL-1	PL-2	PL-3	PL-4	RS-1	RS-2	RS-3
Sample Depth (ft bgs):		14 - 16	7 - 17	8 - 8.5	0 - 14	0 - 4.5	0 - 10	0 - 4.5	0 - 10	2.5 - 3	0.75 - 1.21	0.75 - 1.67	0.67 - 1.67	0.75 - 1.5	0 - 1	0 - 1	0 - 1
Date Collected:	Units	02/08/95	06/08/95	07/24/00	06/23/95	06/21/95	06/21/95	06/21/95	06/21/95	06/13/95	08/10/01	08/10/01	08/10/01	08/10/01	06/13/95	06/13/95	06/13/95
Semivolatile Organics-TCLP (Cont'd.)																	
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs																	
Aroclor-1016	mg/kg	0.19 U	0.22 U	0.042 U	0.24 U	0.21 U	0.24 U	0.21 U	0.22 U	0.21 U	0.042 U	036 U [0.041	0.037 U	0.036 U	0.70 U	3.6 U	0.71 U
Aroclor-1221	mg/kg	0.19 U	0.22 U	0.042 U	0.24 U	0.21 U	0.24 U	0.21 U	0.22 U	0.21 U	0.042 U	036 U [0.041	0.037 U	0.036 U	0.70 U	3.6 U	0.71 U
Aroclor-1232	mg/kg	0.19 U	0.22 U	0.042 U	0.24 U	0.21 U	0.24 U	0.21 U	0.22 U	0.21 U	0.042 U	036 U [0.041	0.037 U	0.036 U	0.70 U	3.6 U	0.71 U
Aroclor-1242	mg/kg	0.19 U	0.22 U	0.042 U	0.24 U	0.21 U	0.24 U	0.21 U	0.22 U	0.21 U	0.042 U	036 U [0.041	0.037 U	0.036 U	0.70 U	3.6 U	0.71 U
Aroclor-1248	mg/kg	0.19 U	0.22 U	0.042 U	0.24 U	0.21 U	0.24 U	0.21 U	0.22 U	0.21 U	0.042 U	036 U [0.041	0.037 U	0.036 U	0.70 U	3.6 U	0.71 U
Aroclor-1254	mg/kg	0.19 U	0.22 U	0.042 U	0.24 U	0.21 U	0.24 U	0.21 U	0.22 U	0.21 U	0.042 U	036 U [0.041	0.037 U	0.036 U	0.70 U	3.6 U	0.71 U
Aroclor-1260	mg/kg	0.19 U	0.22 U	0.042 U	0.24 U	0.21 U	0.24 U	0.21 U	0.22 U	0.21 U	0.017 J	036 U [0.041	0.037 U	0.014 J	0.83	3.9	6.9
Total PCBs	mg/kg	0.19 U	0.22 U	0.042 U	0.24 U	0.21 U	0.24 U	0.21 U	0.22 U	0.21 U	0.017 J	036 U [0.041	0.037 U	0.014 J	0.83	3.9	6.9
Organochlorine Pesticides																	
3-Methylcholanthrene	mg/kg	1.9 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDD	mg/kg	0.0019 U	NA	NA	NA	NA	NA	NA	NA	0.0021 U	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	mg/kg	0.0019 U	NA	NA	NA	NA	NA	NA	NA	0.0021 U	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	mg/kg	0.0019 U	NA	NA	NA	NA	NA	NA	NA	0.0021 U	NA	NA	NA	NA	NA	NA	NA
4-Nitroquinoline-1-oxide	mg/kg	1.9 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	mg/kg	0.00097 U	NA	NA	NA	NA	NA	NA	NA	0.0011 U	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	mg/kg	0.00097 U	NA	NA	NA	NA	NA	NA	NA	0.0011 U	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	mg/kg	0.0019 U	NA	NA	NA	NA	NA	NA	NA	0.0021 U	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/kg	0.19 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	mg/kg	0.00097 UJ	NA	NA	NA	NA	NA	NA	NA	0.0011 U	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	mg/kg	0.00097 U	NA	NA	NA	NA	NA	NA	NA	0.0011 U	NA	NA	NA	NA	NA	NA	NA
Dieldrin	mg/kg	0.0019 U	NA	NA	NA	NA	NA	NA	NA	0.0021 U	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	mg/kg	0.0019 U	NA	NA	NA	NA	NA	NA	NA	0.0021 U	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	mg/kg	0.0019 U	NA	NA	NA	NA	NA	NA	NA	0.0021 U	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	mg/kg	0.0019 U	NA	NA	NA	NA	NA	NA	NA	0.0021 U	NA	NA	NA	NA	NA	NA	NA
Endrin	mg/kg	0.0019 U	NA	NA	NA	NA	NA	NA	NA	0.0021 U	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	mg/kg	0.0019 U	NA	NA	NA	NA	NA	NA	NA	0.0021 U	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	mg/kg	0.00097 U	NA	NA	NA	NA	NA	NA	NA	0.0011 U	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	mg/kg	0.0019 U	NA	NA	NA	NA	NA	NA	NA	0.0021 U	NA	NA	NA	NA	NA	NA	NA
Heptachlor	mg/kg	0.00097 U	NA	NA	NA	NA	NA	NA	NA	0.0011 UJ	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	mg/kg	0.00097 U	NA	NA	NA	NA	NA	NA	NA	0.0011 U	NA	NA	NA	NA	NA	NA	NA
Isodrin	mg/kg	0.0091 U	NA	NA	NA	NA	NA	NA	NA	0.01 U	NA	NA	NA	NA	NA	NA	NA
Kepone	mg/kg	0.091 U	NA	NA	NA	NA	NA	NA	NA	0.1 UJ	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	mg/kg	0.029 UJ	NA	NA	NA	NA	NA	NA	NA	0.032 UJ	NA	NA	NA	NA	NA	NA	NA
Toxaphene	mg/kg	0.097 U	NA	NA	NA	NA	NA	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		MW-126WT	MW-145WT	MW-183WT	NS-1	NS-7	NS-8	NS-9	NS-10	NS-RS-4	PL-1	PL-2	PL-3	PL-4	RS-1	RS-2	RS-3
Sample Depth (ft bgs):		14 - 16	7 - 17	8 - 8.5	0 - 14	0 - 4.5	0 - 10	0 - 4.5	0 - 10	2.5 - 3	0.75 - 1.21	0.75 - 1.67	0.67 - 1.67	0.75 - 1.5	0 - 1	0 - 1	0 - 1
Date Collected:	Units	02/08/95	06/08/95	07/24/00	06/23/95	06/21/95	06/21/95	06/21/95	06/21/95	06/13/95	08/10/01	08/10/01	08/10/01	08/10/01	06/13/95	06/13/95	06/13/95
Organochlorine Pesticides-TCLP																	
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Technical Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides																	
2,4,5-T	mg/kg	0.029 U	NA	NA	NA	NA	NA	NA	NA	0.032 U	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	mg/kg	0.029 U	NA	NA	NA	NA	NA	NA	NA	0.032 U	NA	NA	NA	NA	NA	NA	NA
2,4-D	mg/kg	0.11 U	NA	NA	NA	NA	NA	NA	NA	0.13 U	NA	NA	NA	NA	NA	NA	NA
Dinoseb	mg/kg	0.011 UJ	NA	NA	NA	NA	NA	NA	NA	0.013 UJ	NA	NA	NA	NA	NA	NA	NA
Herbicides-TCLP																	
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans																	
2,3,7,8-TCDD	mg/kg	.00000068 U	NA	NA	NA	NA	NA	NA	NA	0.00025 U	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	mg/kg	.00000054 U	NA	NA	NA	NA	NA	NA	NA	.00000036 U	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	mg/kg	0.0000019 U	NA	NA	NA	NA	NA	NA	NA	0.0000022 U	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	mg/kg	.00000073 U	NA	NA	NA	NA	NA	NA	NA	0.000001 U	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	mg/kg	0.000004 U	NA	NA	NA	NA	NA	NA	NA	0.0000027 U	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	mg/kg	.00000042 U	NA	NA	NA	NA	NA	NA	NA	.00000086 U	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	mg/kg	0.000001 U	NA	NA	NA	NA	NA	NA	NA	0.0000046	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	0.00000007	NA	NA	NA	NA	NA	NA	NA
TPH																	
Total Petroleum Hydrocarbons - extractable (DRO)	mg/kg	NA	1,800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		RS-4	RS-5	RS-5-1	RS-5-2	RS-5-3	RS-5-4	RS-5-5	RS-5-6	RS-5-7	RS-5-8	RS-6	RS-7	RS-8	RY-B1	RY-B2	S1155
Sample Depth (ft bgs):		0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	1	1	0 - 0.5
Date Collected:	Units	06/13/95	06/13/95	06/10/96	06/10/96	06/10/96	06/10/96	06/10/96	06/10/96	06/10/96	06/10/96	06/13/95	06/13/95	06/13/95	07/14/98	07/14/98	06/17/96
Semivolatile Organics																	
1,2,3,4-Tetrachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,5-Tetrachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4,5-Tetrachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	.17 U [0.35 U	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U	0.18 U	0.17 U	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	mg/kg	.17 U [0.35 U	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U	0.18 U	0.17 U	NA	NA	NA
2,3,4,6-Tetrachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,5,6-Tetrachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	mg/kg	.17 U [0.35 U	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U	0.18 U	0.17 U	NA	NA	NA
2,4,6-Trichlorophenol	mg/kg	.17 U [0.35 U	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U	0.18 U	0.17 U	NA	NA	NA
2,4-Diaminotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	mg/kg	.17 U [0.35 U	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U	0.18 U	0.17 U	NA	NA	NA
2,4-Dimethylphenol	mg/kg	028 J [0.35 U	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U	0.071 J	0.17 U	NA	NA	NA
2,4-Dinitrophenol	mg/kg	.85 U [1.7 U	1.7 U	NA	NA	NA	NA	NA	NA	NA	NA	0.84 U	0.86 U	0.84 U	NA	NA	NA
2,4-Dinitrotoluene	mg/kg	.17 U [0.35 U	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U	0.18 U	0.17 U	NA	NA	NA
2,6-Dichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	mg/kg	.17 U [0.35 U	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U	0.18 U	0.17 U	NA	NA	NA
2-Acetylaminofluorene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	mg/kg	.17 U [0.35 U	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U	0.18 U	0.17 U	NA	NA	NA
2-Chlorophenol	mg/kg	.17 U [0.35 U	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U	0.18 U	0.17 U	NA	NA	NA
2-Methylnaphthalene	mg/kg	1.1 [0.76]	0.12 J	NA	NA	NA	NA	NA	NA	NA	NA	0.039 J	1.8	0.26	NA	NA	NA
2-Methylphenol	mg/kg	.17 U [0.35 U	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U	0.039 J	0.17 U	NA	NA	NA
2-Naphthylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	mg/kg	.85 U [1.7 U	1.7 U	NA	NA	NA	NA	NA	NA	NA	NA	0.84 U	0.86 U	0.84 U	NA	NA	NA
2-Nitrophenol	mg/kg	.17 U [0.35 U	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U	0.18 U	0.17 U	NA	NA	NA
2-Picoline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	mg/kg	.35 U [0.70 U	0.71 U	NA	NA	NA	NA	NA	NA	NA	NA	0.35 U	0.35 U	0.35 U	NA	NA	NA
3,3'-Dimethylbenzidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	mg/kg	.85 U [1.7 U	1.7 U	NA	NA	NA	NA	NA	NA	NA	NA	0.84 U	0.86 U	0.84 U	NA	NA	NA
4,4'-Methylene-bis(2-chloroaniline)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	mg/kg	.85 U [1.7 U	1.7 U	NA	NA	NA	NA	NA	NA	NA	NA	0.84 U	0.86 U	0.84 U	NA	NA	NA
4-Aminobiphenyl	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		RS-4	RS-5	RS-5-1	RS-5-2	RS-5-3	RS-5-4	RS-5-5	RS-5-6	RS-5-7	RS-5-8	RS-6	RS-7	RS-8	RY-B1	RY-B2	S1155
Sample Depth (ft bgs):		0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	1	1	0 - 0.5
Date Collected:	Units	06/13/95	06/13/95	06/10/96	06/10/96	06/10/96	06/10/96	06/10/96	06/10/96	06/10/96	06/10/96	06/13/95	06/13/95	06/13/95	07/14/98	07/14/98	06/17/96
Semivolatile Organics (Cont'd.)																	
4-Bromophenyl-phenylether	mg/kg	.17 U [0.35 U	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U	0.18 U	0.17 U	NA	NA	NA
4-Chloro-3-Methylphenol	mg/kg	.17 U [0.35 U	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U	0.18 U	0.17 U	NA	NA	NA
4-Chloroaniline	mg/kg	.17 U [0.35 U	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U	0.18 U	0.17 U	NA	NA	NA
4-Chlorobenzilate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	mg/kg	.17 U [0.35 U	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U	0.18 U	0.17 U	NA	NA	NA
4-Methylphenol	mg/kg	.17 U [0.35 U	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U	0.037 J	0.17 U	NA	NA	NA
4-Nitroaniline	mg/kg	.85 U [1.7 U	1.7 U	NA	NA	NA	NA	NA	NA	NA	NA	0.84 U	0.86 U	0.84 U	NA	NA	NA
4-Nitrophenol	mg/kg	.85 U [1.7 U	1.7 U	NA	NA	NA	NA	NA	NA	NA	NA	0.84 U	0.86 U	0.84 U	NA	NA	NA
4-Nitroquinoline-1-oxide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/kg	020 J [0.35 U	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U	0.18 U	0.17 U	NA	NA	NA
Acenaphthylene	mg/kg	.17 U [0.35 U	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U	0.18 U	0.17 U	NA	NA	NA
Acetophenone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/kg	045 J [0.35 U	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U	0.053 J	0.029 J	NA	NA	NA
Aramite	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/kg	13 J [0.085	0.079 J	NA	NA	NA	NA	NA	NA	NA	NA	0.069 J	0.099 J	0.14 J	NA	NA	NA
Benzo(a)pyrene	mg/kg	11 J [0.065	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.064 J	0.053 J	0.11 J	NA	NA	NA
Benzo(b)fluoranthene	mg/kg	14 J [0.095	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.098 J	0.094 J	0.18	NA	NA	NA
Benzo(g,h,i)perylene	mg/kg	052 J [0.047	0.040 J	NA	NA	NA	NA	NA	NA	NA	NA	0.037 J	0.041 J	0.054 J	NA	NA	NA
Benzo(k)fluoranthene	mg/kg	081 J [0.038	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.052 J	0.18 U	0.086 J	NA	NA	NA
Benzoic Acid	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	mg/kg	.17 U [0.35 U	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U	0.18 U	0.17 U	NA	NA	NA
bis(2-Chloroethyl)ether	mg/kg	.17 U [0.35 U	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U	0.18 U	0.17 U	NA	NA	NA
bis(2-Chloroisopropyl)ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	mg/kg	0.29 [0.35 U	2.3	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U	0.18 U	0.17 U	NA	NA	NA
Butylbenzylphthalate	mg/kg	0.20 [0.099 J	0.054 J	NA	NA	NA	NA	NA	NA	NA	NA	0.027 J	0.045 J	0.056 J	NA	NA	NA
Caprolactam	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	mg/kg	.17 U [0.35 U	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U	0.18 U	0.17 U	NA	NA	NA
Chrysene	mg/kg	0.20 [0.13 J]	0.11 J	NA	NA	NA	NA	NA	NA	NA	NA	0.089 J	0.14 J	0.18	NA	NA	NA
Diallate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	mg/kg	.17 U [0.35 U	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U	0.18 U	0.17 U	NA	NA	NA
Dibenzofuran	mg/kg	0.25 [0.17 J]	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U	0.37	0.067 J	NA	NA	NA
Diethylphthalate	mg/kg	.17 U [0.35 U	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U	0.18 U	0.17 U	NA	NA	NA
Dimethylphthalate	mg/kg	.17 U [0.35 U	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U	0.18 U	0.17 U	NA	NA	NA
Di-n-Butylphthalate	mg/kg	2.2 [4.1]	1.7	NA	NA	NA	NA	NA	NA	NA	NA	2.1	3.6 D	1.4	NA	NA	NA
Di-n-Octylphthalate	mg/kg	.17 U [0.35 U	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U	3.6 D	0.17 U	NA	NA	NA
Diphenylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		RS-4	RS-5	RS-5-1	RS-5-2	RS-5-3	RS-5-4	RS-5-5	RS-5-6	RS-5-7	RS-5-8	RS-6	RS-7	RS-8	RY-B1	RY-B2	S1155
Sample Depth (ft bgs):		0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	1	1	0 - 0.5
Date Collected:	Units	06/13/95	06/13/95	06/10/96	06/10/96	06/10/96	06/10/96	06/10/96	06/10/96	06/10/96	06/10/96	06/13/95	06/13/95	06/13/95	07/14/98	07/14/98	06/17/96
Semivolatile Organics (Cont'd.)																	
Ethyl Methacrylate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	mg/kg	0.27 [0.17 J]	0.14 J	NA	NA	NA	NA	NA	NA	NA	NA	0.15 J	0.24	0.32	NA	NA	NA
Fluorene	mg/kg	045 J [0.35	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U	0.061 J	0.17 U	NA	NA	NA
Hexachlorobenzene	mg/kg	.17 U [0.35 U	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U	0.18 U	0.17 U	NA	NA	NA
Hexachlorobutadiene	mg/kg	.17 U [0.35 U	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U	0.18 U	0.17 U	NA	NA	NA
Hexachlorocyclopentadiene	mg/kg	.17 U [0.35 U	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U	0.18 U	0.17 U	NA	NA	NA
Hexachloroethane	mg/kg	.17 U [0.35 U	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U	0.18 U	0.17 U	NA	NA	NA
Hexachlorophene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloropropene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	mg/kg	036 J [0.35	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.032 J	0.18 U	0.047 J	NA	NA	NA
Isophorone	mg/kg	.17 U [0.35 U	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U	0.18 U	0.17 U	NA	NA	NA
Isosafrole	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/kg	0.65 [0.45]	0.078 J	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U	1.0	0.17	NA	NA	NA
Nitrobenzene	mg/kg	.17 U [0.35 U	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U	0.18 U	0.17 U	NA	NA	NA
N-Nitrosodiethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	mg/kg	.17 U [0.35 U	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U	0.18 U	0.17 U	NA	NA	NA
N-Nitrosodiphenylamine	mg/kg	.17 U [0.35 U	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U	0.18 U	0.17 U	NA	NA	NA
N-Nitrosomethylethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	mg/kg	.85 U [1.7 U	1.7 U	NA	NA	NA	NA	NA	NA	NA	NA	0.84 U	0.86 U	0.84 U	NA	NA	NA
Phenacetin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	mg/kg	0.55 [0.35]	0.11 J	NA	NA	NA	NA	NA	NA	NA	NA	0.090 J	0.87	0.27	NA	NA	NA
Phenol	mg/kg	.17 U [0.35 U	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U	0.057 J	0.17 U	NA	NA	NA
Pronamide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	mg/kg	0.20 [0.13 J]	0.085 J	NA	NA	NA	NA	NA	NA	NA	NA	0.091 J	0.12 J	0.19	NA	NA	NA
Pyridine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	mg/kg	.17 U [0.35 U	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	0.17 U	0.039 J	0.17 U	NA	NA	NA
Semivolatile Organics-TCLP																	
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

Location ID:		RS-4	RS-5	RS-5-1	RS-5-2	RS-5-3	RS-5-4	RS-5-5	RS-5-6	RS-5-7	RS-5-8	RS-6	RS-7	RS-8	RY-B1	RY-B2	S1155
Sample Depth (ft bgs):		0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	1	1	0 - 0.5
Date Collected:	Units	06/13/95	06/13/95	06/10/96	06/10/96	06/10/96	06/10/96	06/10/96	06/10/96	06/10/96	06/10/96	06/13/95	06/13/95	06/13/95	07/14/98	07/14/98	06/17/96
Semivolatile Organics-TCLP (Cont'd.)																	
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs																	
Aroclor-1016	mg/kg	.17 U [0.17 U	3.6 U	0.39 U	0.18 U	0.19 U	1.9 U	0.42 U	0.38 U	.19 U [0.18 U	0.38 U	1.7 U	0.18 U	0.35 U	0.33 U	0.33 U	1.0 U
Aroclor-1221	mg/kg	.17 U [0.17 U	3.6 U	0.39 U	0.18 U	0.19 U	1.9 U	0.42 U	0.38 U	.19 U [0.18 U	0.38 U	1.7 U	0.18 U	0.35 U	0.33 U	0.33 U	1.0 U
Aroclor-1232	mg/kg	.17 U [0.17 U	3.6 U	0.39 U	0.18 U	0.19 U	1.9 U	0.42 U	0.38 U	.19 U [0.18 U	0.38 U	1.7 U	0.18 U	0.35 U	0.33 U	0.33 U	1.0 U
Aroclor-1242	mg/kg	.17 U [0.17 U	3.6 U	0.39 U	0.18 U	0.19 U	1.9 U	0.42 U	0.38 U	0.19 U [0.18 U	0.38 U	1.7 U	0.18 U	0.35 U	0.33 U	0.33 U	10
Aroclor-1248	mg/kg	.17 U [0.17 U	3.6 U	0.39 U	0.18 U	0.19 U	1.9 U	0.42 U	0.38 U	.19 U [0.18 U	0.38 U	1.7 U	0.18 U	0.35 U	0.33 U	0.33 U	1.0 U
Aroclor-1254	mg/kg	.17 U [0.17 U	55	0.79 U	0.18 U	0.38 U	3.7 U	0.83 U	0.75 U	.37 U [0.37 U	0.75 U	1.7 U	0.18 U	0.70 U	0.33 U	0.33 U	1.0 U
Aroclor-1260	mg/kg	.17 U [0.17 U	7.1 U	2.7 J	0.70 J	1.0 J	4.4 J	1.9	4.2 J	1.4 J [1.4]	2.1 J	7.0	0.18 U	5.3	0.33 U	0.33 U	1.0 U
Total PCBs	mg/kg	.17 U [0.17 U	55	2.7 J	0.70 J	1.0 J	4.4 J	1.9	4.2 J	1.6 J [1.4]	2.1 J	7.0	0.18 U	5.3	0.33 U	0.33 U	10
Organochlorine Pesticides																	
3-Methylcholanthrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDD	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroquinoline-1-oxide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		RS-4	RS-5	RS-5-1	RS-5-2	RS-5-3	RS-5-4	RS-5-5	RS-5-6	RS-5-7	RS-5-8	RS-6	RS-7	RS-8	RY-B1	RY-B2	S1155
Sample Depth (ft bgs):		0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	1	1	0 - 0.5
Date Collected:	Units	06/13/95	06/13/95	06/10/96	06/10/96	06/10/96	06/10/96	06/10/96	06/10/96	06/10/96	06/10/96	06/13/95	06/13/95	06/13/95	07/14/98	07/14/98	06/17/96
Organochlorine Pesticides-TCLP																	
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Technical Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides																	
2,4,5-T	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides-TCLP																	
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans																	
2,3,7,8-TCDD	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																	
Total Petroleum Hydrocarbons - extractable (DRO)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:	Units	S1157	S1158	S1159	S1160	S1161	S1162	S1163	S1164	S1165	S1166	S1167	S1168	S1169	S1170	S1171	S1172
Sample Depth (ft bgs):		0 - 0.5	0.5 - 1	1 - 2	0 - 0.5	0.5 - 1	1 - 2	0 - 0.5	0.5 - 1	1 - 2	0 - 0.5	0.5 - 1	1 - 2	0 - 0.5	0.5 - 1	1 - 2	0 - 0.5
Date Collected:		06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96
Semivolatile Organics																	
1,2,3,4-Tetrachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,5-Tetrachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4,5-Tetrachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6-Tetrachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,5,6-Tetrachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Diaminotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Acetylaminofluorene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Naphthylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Picoline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dimethylbenzidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-Methylene-bis(2-chloroaniline)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Aminobiphenyl	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:	Units	S1157	S1158	S1159	S1160	S1161	S1162	S1163	S1164	S1165	S1166	S1167	S1168	S1169	S1170	S1171	S1172
Sample Depth (ft bgs):		0 - 0.5	0.5 - 1	1 - 2	0 - 0.5	0.5 - 1	1 - 2	0 - 0.5	0.5 - 1	1 - 2	0 - 0.5	0.5 - 1	1 - 2	0 - 0.5	0.5 - 1	1 - 2	0 - 0.5
Date Collected:		06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96
Semivolatile Organics (Cont'd.)																	
4-Bromophenyl-phenylether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorobenzilate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroquinoline-1-oxide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aramite	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzoic Acid	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroisopropyl)ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diallate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diphenylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		S1157	S1158	S1159	S1160	S1161	S1162	S1163	S1164	S1165	S1166	S1167	S1168	S1169	S1170	S1171	S1172
Sample Depth (ft bgs):		0 - 0.5	0.5 - 1	1 - 2	0 - 0.5	0.5 - 1	1 - 2	0 - 0.5	0.5 - 1	1 - 2	0 - 0.5	0.5 - 1	1 - 2	0 - 0.5	0.5 - 1	1 - 2	0 - 0.5
Date Collected:	Units	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96
Semivolatile Organics (Cont'd.)																	
Ethyl Methacrylate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorophene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloropropene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isosafrole	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomethylethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenacetin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pronamide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyridine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organics-TCLP																	
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		S1157	S1158	S1159	S1160	S1161	S1162	S1163	S1164	S1165	S1166	S1167	S1168	S1169	S1170	S1171	S1172
Sample Depth (ft bgs):		0 - 0.5	0.5 - 1	1 - 2	0 - 0.5	0.5 - 1	1 - 2	0 - 0.5	0.5 - 1	1 - 2	0 - 0.5	0.5 - 1	1 - 2	0 - 0.5	0.5 - 1	1 - 2	0 - 0.5
Date Collected:	Units	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96
Semivolatile Organics-TCLP (Cont'd.)																	
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs																	
Aroclor-1016	mg/kg	10 UJ	5.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	5.0 UJ	10 U	1.0 UJ	10 U	1.0 U	5.0 UJ	1.0 U	1.0 UJ	1.0 UJ	1.0 U
Aroclor-1221	mg/kg	10 UJ	5.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	5.0 UJ	10 U	1.0 UJ	10 U	1.0 U	5.0 UJ	1.0 U	1.0 UJ	1.0 UJ	1.0 U
Aroclor-1232	mg/kg	10 UJ	5.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	5.0 UJ	10 U	1.0 UJ	10 U	1.0 U	5.0 UJ	1.0 U	1.0 UJ	1.0 UJ	1.0 U
Aroclor-1242	mg/kg	91 J	19	8.3	17	5.6	1.0 UJ	55 J	120	1.0 UJ	96	2.3	76	1.0 U	1.0 UJ	1.0 UJ	1.8
Aroclor-1248	mg/kg	10 UJ	5.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	5.0 UJ	10 U	1.0 UJ	10 U	1.0 U	5.0 UJ	1.0 U	1.0 UJ	1.0 UJ	1.0 U
Aroclor-1254	mg/kg	10 UJ	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 UJ	10 U	1.0 U	10 U	1.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
Aroclor-1260	mg/kg	10 UJ	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 UJ	10 U	1.0 U	10 U	1.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
Total PCBs	mg/kg	91 J	19	8.3	17	5.6	1.0 U	55 J	120	1.0 U	96	2.3	76	1.0 U	1.0 U	1.0 U	1.8
Organochlorine Pesticides																	
3-Methylcholanthrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDD	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroquinoline-1-oxide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		S1157	S1158	S1159	S1160	S1161	S1162	S1163	S1164	S1165	S1166	S1167	S1168	S1169	S1170	S1171	S1172
Sample Depth (ft bgs):		0 - 0.5	0.5 - 1	1 - 2	0 - 0.5	0.5 - 1	1 - 2	0 - 0.5	0.5 - 1	1 - 2	0 - 0.5	0.5 - 1	1 - 2	0 - 0.5	0.5 - 1	1 - 2	0 - 0.5
Date Collected:	Units	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96
Organochlorine Pesticides-TCLP																	
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Technical Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides																	
2,4,5-T	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides-TCLP																	
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans																	
2,3,7,8-TCDD	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																	
Total Petroleum Hydrocarbons - extractable (DRO)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:	Units	S1173	S1174	S1175	S1176	S1177	S1178	S1179	S1180	S1181	S1182	S1183	S1184	S1185	S1186	S1187	S1188
Sample Depth (ft bgs):		0.5 - 1	1 - 2	0 - 0.5	0.5 - 1	1 - 2	0 - 0.5	0.5 - 1	1 - 2	0 - 0.5	0.5 - 1	1 - 3	3 - 5	3 - 5	3 - 5	3 - 5	3 - 5
Date Collected:		06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	07/09/96	07/09/96	07/09/96	07/09/96	06/15/96
Semivolatile Organics																	
1,2,3,4-Tetrachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,5-Tetrachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4,5-Tetrachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6-Tetrachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,5,6-Tetrachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Diaminotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Acetylaminofluorene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Naphthylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Picoline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dimethylbenzidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-Methylene-bis(2-chloroaniline)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Aminobiphenyl	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:	Units	S1173	S1174	S1175	S1176	S1177	S1178	S1179	S1180	S1181	S1182	S1183	S1184	S1185	S1186	S1187	S1188
Sample Depth (ft bgs):		0.5 - 1	1 - 2	0 - 0.5	0.5 - 1	1 - 2	0 - 0.5	0.5 - 1	1 - 2	0 - 0.5	0.5 - 1	1 - 3	3 - 5	3 - 5	3 - 5	3 - 5	3 - 5
Date Collected:		06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	07/09/96	07/09/96	07/09/96	07/09/96	06/15/96
Semivolatile Organics (Cont'd.)																	
4-Bromophenyl-phenylether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorobenzilate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroquinoline-1-oxide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aramite	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzoic Acid	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroisopropyl)ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diallate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diphenylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		S1173	S1174	S1175	S1176	S1177	S1178	S1179	S1180	S1181	S1182	S1183	S1184	S1185	S1186	S1187	S1188
Sample Depth (ft bgs):		0.5 - 1	1 - 2	0 - 0.5	0.5 - 1	1 - 2	0 - 0.5	0.5 - 1	1 - 2	0 - 0.5	0.5 - 1	1 - 3	3 - 5	3 - 5	3 - 5	3 - 5	3 - 5
Date Collected:	Units	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	07/09/96	07/09/96	07/09/96	07/09/96	06/15/96
Semivolatile Organics (Cont'd.)																	
Ethyl Methacrylate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorophene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloropropene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isosafrole	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomethylethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenacetin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pronamide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyridine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organics-TCLP																	
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:	Units	S1173	S1174	S1175	S1176	S1177	S1178	S1179	S1180	S1181	S1182	S1183	S1184	S1185	S1186	S1187	S1188
Sample Depth (ft bgs):		0.5 - 1	1 - 2	0 - 0.5	0.5 - 1	1 - 2	0 - 0.5	0.5 - 1	1 - 2	0 - 0.5	0.5 - 1	1 - 3	3 - 5	3 - 5	3 - 5	3 - 5	3 - 5
Date Collected:		06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	07/09/96	07/09/96	07/09/96	07/09/96	06/15/96
Semivolatile Organics-TCLP (Cont'd.)																	
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs																	
Aroclor-1016	mg/kg	1.0 U	1.0 U	5.0 U	10 U	50 U	5.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
Aroclor-1221	mg/kg	1.0 U	1.0 U	5.0 U	10 U	50 U	5.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
Aroclor-1232	mg/kg	1.0 U	1.0 U	5.0 U	10 U	50 U	5.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
Aroclor-1242	mg/kg	6.7	5.8	50	220	640	26	18	40	3.7	4.8	1.4	1.0 U	1.0 U	1.0 U	1.0 U	41
Aroclor-1248	mg/kg	1.0 U	1.0 U	5.0 U	10 U	50 U	5.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
Aroclor-1254	mg/kg	1.0 U	1.0 U	5.0 U	10 U	50 U	5.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
Aroclor-1260	mg/kg	1.0 U	1.0 U	5.0 U	10 U	50 U	5.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
Total PCBs	mg/kg	6.7	5.8	50	220	640	26	18	40	3.7	4.8	1.4	1.0 U	1.0 U	1.0 U	1.0 U	41
Organochlorine Pesticides																	
3-Methylcholanthrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDD	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroquinoline-1-oxide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		S1173	S1174	S1175	S1176	S1177	S1178	S1179	S1180	S1181	S1182	S1183	S1184	S1185	S1186	S1187	S1188
Sample Depth (ft bgs):		0.5 - 1	1 - 2	0 - 0.5	0.5 - 1	1 - 2	0 - 0.5	0.5 - 1	1 - 2	0 - 0.5	0.5 - 1	1 - 3	3 - 5	3 - 5	3 - 5	3 - 5	3 - 5
Date Collected:	Units	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	06/20/96	07/09/96	07/09/96	07/09/96	07/09/96	06/15/96
Organochlorine Pesticides-TCLP																	
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Technical Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides																	
2,4,5-T	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides-TCLP																	
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans																	
2,3,7,8-TCDD	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																	
Total Petroleum Hydrocarbons - extractable (DRO)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		S1189	S2031	S2032	S2033	S2034	S2035	S2036	S2037	S2038	S3043	S3044	S3045	S3046	S3047	S3048	SB-01A
Sample Depth (ft bgs):		3 - 5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	3 - 5	3 - 5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	1 - 3
Date Collected:	Units	06/15/96	09/06/96	09/06/96	09/06/96	09/06/96	09/06/96	09/06/96	09/24/96	09/24/96	11/27/96	11/27/96	11/27/96	11/27/96	11/27/96	11/27/96	08/23/01
Semivolatile Organics																	
1,2,3,4-Tetrachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,5-Tetrachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4,5-Tetrachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.35 U
1,2-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.35 U
1,2-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.35 U
1,3-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.35 U
1,4-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.35 U
2,3,4,6-Tetrachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,5,6-Tetrachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.35 U
2,4,6-Trichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.35 U
2,4-Diaminotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.35 U
2,4-Dimethylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.35 U
2,4-Dinitrophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.70 U
2,4-Dinitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.35 U
2,6-Dichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.35 U
2-Acetylaminofluorene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.35 U
2-Chlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.35 U
2-Methylnaphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.057 J
2-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.35 U
2-Naphthylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.35 U
2-Nitrophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.35 U
2-Picoline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.35 U
3,3'-Dimethylbenzidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.35 U
4,4'-Methylene-bis(2-chloroaniline)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.70 U
4-Aminobiphenyl	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:	Units	S1189	S2031	S2032	S2033	S2034	S2035	S2036	S2037	S2038	S3043	S3044	S3045	S3046	S3047	S3048	SB-01A
Sample Depth (ft bgs):		3 - 5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	3 - 5	3 - 5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	1 - 3
Date Collected:		06/15/96	09/06/96	09/06/96	09/06/96	09/06/96	09/06/96	09/06/96	09/24/96	09/24/96	11/27/96	11/27/96	11/27/96	11/27/96	11/27/96	11/27/96	08/23/01
Semivolatile Organics (Cont'd.)																	
4-Bromophenyl-phenylether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.35 U
4-Chloro-3-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.35 U
4-Chloroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.35 U
4-Chlorobenzilate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.35 U
4-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.35 U
4-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.35 U
4-Nitrophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.70 U
4-Nitroquinoline-1-oxide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.35 U
Acenaphthylene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.35 U
Acetophenone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.35 U
Aramite	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.35 U
Benzo(a)pyrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.35 U
Benzo(b)fluoranthene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.35 U
Benzo(g,h,i)perylene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.35 U
Benzo(k)fluoranthene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.35 U
Benzoic Acid	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.35 U
bis(2-Chloroethyl)ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.35 U
bis(2-Chloroisopropyl)ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.35 U
Butylbenzylphthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.35 U
Caprolactam	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.35 U
Chrysene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.35 U
Diallate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.35 U
Dibenzofuran	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.35 U
Diethylphthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.35 U
Dimethylphthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.35 U
Di-n-Butylphthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.35 U
Di-n-Octylphthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.35 U
Diphenylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		S1189	S2031	S2032	S2033	S2034	S2035	S2036	S2037	S2038	S3043	S3044	S3045	S3046	S3047	S3048	SB-01A
Sample Depth (ft bgs):		3 - 5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	3 - 5	3 - 5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	1 - 3
Date Collected:	Units	06/15/96	09/06/96	09/06/96	09/06/96	09/06/96	09/06/96	09/06/96	09/24/96	09/24/96	11/27/96	11/27/96	11/27/96	11/27/96	11/27/96	11/27/96	08/23/01
Semivolatile Organics (Cont'd.)																	
Ethyl Methacrylate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.35 U
Fluorene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.35 U
Hexachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.35 U
Hexachlorobutadiene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.35 U
Hexachlorocyclopentadiene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.35 U
Hexachloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.35 U
Hexachlorophene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloropropene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.35 U
Isophorone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.35 U
Isosafrole	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.045 J
Nitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.35 U
N-Nitrosodiethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.35 U
N-Nitrosodiphenylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.35 U
N-Nitrosomethylethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.35 U
Phenacetin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.050 J
Phenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.35 U
Pronamide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.35 U
Pyridine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.35 U
Semivolatile Organics-TCLP																	
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:	Units	S1189	S2031	S2032	S2033	S2034	S2035	S2036	S2037	S2038	S3043	S3044	S3045	S3046	S3047	S3048	SB-01A
Sample Depth (ft bgs):		3 - 5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	3 - 5	3 - 5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	1 - 3
Date Collected:		06/15/96	09/06/96	09/06/96	09/06/96	09/06/96	09/06/96	09/06/96	09/24/96	09/24/96	11/27/96	11/27/96	11/27/96	11/27/96	11/27/96	11/27/96	08/23/01
Semivolatile Organics-TCLP (Cont'd.)																	
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs																	
Aroclor-1016	mg/kg	1.0 U	1.0 U	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.035 U
Aroclor-1221	mg/kg	1.0 U	1.0 U	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.035 U
Aroclor-1232	mg/kg	1.0 U	1.0 U	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.035 U
Aroclor-1242	mg/kg	1.3	7.5	360	650	27	1.9	13	1.0 U	1.0 U	6.3	1.0 U	1.4	3.1	1.0 U	2.1	0.035 U
Aroclor-1248	mg/kg	1.0 U	1.0 U	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.035 U
Aroclor-1254	mg/kg	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.67	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ	0.035 U
Aroclor-1260	mg/kg	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ	0.035 U
Total PCBs	mg/kg	1.3	7.5	360	650	27	1.9	13	1.0 U	1.0	6.3	0.67	1.4	3.1	1.0 U	2.1	0.035 U
Organochlorine Pesticides																	
3-Methylcholanthrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDD	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroquinoline-1-oxide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		S1189	S2031	S2032	S2033	S2034	S2035	S2036	S2037	S2038	S3043	S3044	S3045	S3046	S3047	S3048	SB-01A
Sample Depth (ft bgs):		3 - 5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	3 - 5	3 - 5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	1 - 3
Date Collected:	Units	06/15/96	09/06/96	09/06/96	09/06/96	09/06/96	09/06/96	09/06/96	09/24/96	09/24/96	11/27/96	11/27/96	11/27/96	11/27/96	11/27/96	11/27/96	08/23/01
Organochlorine Pesticides-TCLP																	
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Technical Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides																	
2,4,5-T	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides-TCLP																	
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans																	
2,3,7,8-TCDD	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																	
Total Petroleum Hydrocarbons - extractable (DRO)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:	Units	SB-01A	SB-02	SB-02	SB-03	SB-03	SB-04	SB-04	SB-304	SB-304	SB-304	SB-305	SB-305	SB-305	SB-305	SB-312	SB-313
Sample Depth (ft bgs):		5 - 7	6 - 8	10 - 12	8 - 10	14 - 16	6 - 8	14 - 16	0 - 1	2 - 4	6 - 8	0 - 1	2 - 4	6 - 8	10 - 12	8 - 10	4 - 6
Date Collected:		08/23/01	08/08/91	08/08/91	08/08/91	08/08/91	08/31/91	08/31/91	02/08/95	02/08/95	02/08/95	02/08/95	02/08/95	02/08/95	02/08/95	06/06/95	06/07/95
Semivolatile Organics																	
1,2,3,4-Tetrachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,5-Tetrachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4,5-Tetrachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA	NA
1,2,4-Trichlorobenzene	mg/kg	0.35 U	NA	NA	NA	NA	NA	NA	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.18 U	0.23 U	0.20 U	0.74 U
1,2-Dichlorobenzene	mg/kg	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	R	NA	NA
1,3-Dichlorobenzene	mg/kg	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA	NA
1,4-Dichlorobenzene	mg/kg	0.35 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.5 UJ	NA	NA
1-Naphthylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	mg/kg	0.35 U	NA	NA	NA	NA	NA	NA	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.18 U	0.23 U	0.20 U	0.74 U
2,3,4,6-Tetrachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.1 U	NA	NA
2,3,5,6-Tetrachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	mg/kg	0.35 U	NA	NA	NA	NA	NA	NA	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.18 U	0.23 U	0.20 U	0.74 U
2,4,6-Trichlorophenol	mg/kg	0.35 U	NA	NA	NA	NA	NA	NA	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.18 U	0.23 U	0.20 U	0.74 U
2,4-Diaminotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 UJ	NA	NA
2,4-Dichlorophenol	mg/kg	0.35 U	NA	NA	NA	NA	NA	NA	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.18 U	0.23 U	0.20 U	0.74 U
2,4-Dimethylphenol	mg/kg	0.35 U	NA	NA	NA	NA	NA	NA	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.18 U	0.23 U	0.20 U	0.74 U
2,4-Dinitrophenol	mg/kg	0.71 U	NA	NA	NA	NA	NA	NA	0.86 U	0.85 U	1.0 U	0.90 U	0.86 U	0.89 U	1.1 U	0.99 U	3.6 U
2,4-Dinitrotoluene	mg/kg	0.35 U	NA	NA	NA	NA	NA	NA	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.18 U	0.23 U	0.20 U	0.74 U
2,6-Dichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA	NA
2,6-Dinitrotoluene	mg/kg	0.35 U	NA	NA	NA	NA	NA	NA	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.18 U	0.23 U	0.20 U	0.74 U
2-Acetylaminofluorene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.45 U	NA	NA
2-Chloronaphthalene	mg/kg	0.35 U	NA	NA	NA	NA	NA	NA	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.18 U	0.23 U	0.20 U	0.74 U
2-Chlorophenol	mg/kg	0.35 U	NA	NA	NA	NA	NA	NA	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.18 U	0.23 U	0.20 U	0.74 U
2-Methylnaphthalene	mg/kg	0.15 J	NA	NA	NA	NA	NA	NA	0.070 J	0.18 U	0.058 J	0.12 J	0.14 J	0.84	0.23 U	0.39	0.34 J
2-Methylphenol	mg/kg	0.35 U	NA	NA	NA	NA	NA	NA	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.18 U	0.23 U	0.20 U	0.74 U
2-Naphthylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA	NA
2-Nitroaniline	mg/kg	0.35 U	NA	NA	NA	NA	NA	NA	0.86 U	0.85 U	1.0 U	0.90 U	0.86 U	0.89 U	1.1 U	0.99 U	3.6 U
2-Nitrophenol	mg/kg	0.35 U	NA	NA	NA	NA	NA	NA	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.18 U	0.23 U	0.20 U	0.74 U
2-Picoline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.45 U	NA	NA
3,3'-Dichlorobenzidine	mg/kg	0.35 U	NA	NA	NA	NA	NA	NA	0.36 U	0.35 U	0.41 U	0.37 U	0.35 U	0.37 U	0.45 U	0.41 U	1.5 U
3,3'-Dimethylbenzidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.1 U	NA	NA
3-Methylcholanthrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA	NA
3-Nitroaniline	mg/kg	0.35 U	NA	NA	NA	NA	NA	NA	0.86 U	0.85 U	1.0 U	0.90 U	0.86 U	0.89 U	1.1 U	0.99 U	3.6 U
4,4'-Methylene-bis(2-chloroaniline)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	mg/kg	0.71 U	NA	NA	NA	NA	NA	NA	0.86 U	0.85 U	1.0 U	0.90 U	0.86 U	0.89 U	1.1 U	0.99 U	3.6 U
4-Aminobiphenyl	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.1 U	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		SB-01A	SB-02	SB-02	SB-03	SB-03	SB-04	SB-04	SB-304	SB-304	SB-304	SB-305	SB-305	SB-305	SB-305	SB-312	SB-313
Sample Depth (ft bgs):		5 - 7	6 - 8	10 - 12	8 - 10	14 - 16	6 - 8	14 - 16	0 - 1	2 - 4	6 - 8	0 - 1	2 - 4	6 - 8	10 - 12	8 - 10	4 - 6
Date Collected:	Units	08/23/01	08/08/91	08/08/91	08/08/91	08/08/91	08/31/91	08/31/91	02/08/95	02/08/95	02/08/95	02/08/95	02/08/95	02/08/95	02/08/95	06/06/95	06/07/95
Semivolatile Organics (Cont'd.)																	
4-Bromophenyl-phenylether	mg/kg	0.35 U	NA	NA	NA	NA	NA	NA	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.18 U	0.23 U	0.20 U	0.74 U
4-Chloro-3-Methylphenol	mg/kg	0.35 U	NA	NA	NA	NA	NA	NA	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.18 U	0.23 U	0.20 U	0.74 U
4-Chloroaniline	mg/kg	0.35 U	NA	NA	NA	NA	NA	NA	0.18 U	0.35 U	0.21 U	0.19 U	0.18 U	0.18 U	0.23 U	0.20 U	0.74 U
4-Chlorobenzilate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA	NA
4-Chlorophenyl-phenylether	mg/kg	0.35 U	NA	NA	NA	NA	NA	NA	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.18 U	0.23 U	0.20 U	0.74 U
4-Methylphenol	mg/kg	0.35 U	NA	NA	NA	NA	NA	NA	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.042 J	0.23 U	0.20 U	0.25 J
4-Nitroaniline	mg/kg	0.35 U	NA	NA	NA	NA	NA	NA	0.86 U	0.85 U	1.0 U	0.90 U	0.86 U	0.89 U	1.1 U	0.99 U	3.6 U
4-Nitrophenol	mg/kg	0.71 U	NA	NA	NA	NA	NA	NA	0.86 U	0.85 U	1.0 U	0.90 U	0.86 U	0.89 U	1.1 U	0.99 U	3.6 U
4-Nitroquinoline-1-oxide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.1 U	NA	NA
5-Nitro-o-toluidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA	NA
7,12-Dimethylbenz(a)anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.3 U	NA	NA
a,a'-Dimethylphenethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.2 U	NA	NA
Acenaphthene	mg/kg	0.35 U	0.067 U	0.067 U	0.67 U	0.067 U	2.7 U	0.033 U	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.052 J	0.23 U	0.038 J	0.74 U
Acenaphthylene	mg/kg	0.35 U	0.033 U	0.033 U	0.33 U	0.033 U	1.3 U	0.017 U	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.18 U	0.23 U	0.20 U	0.74 U
Acetophenone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA	NA
Aniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA	NA
Anthracene	mg/kg	0.35 U	0.033 U	0.033 U	0.33 U	0.033 U	1.3 U	0.017 U	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.041 J	0.23 U	0.052 J	0.74 U
Aramite	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.1 UJ	NA	NA
Atrazine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 UJ	NA	NA
Benzo(a)anthracene	mg/kg	0.35 U	0.067 U	0.067 U	0.73	0.067 U	2.7 U	0.033 U	0.040 J	0.053 J	0.21 U	0.19 U	0.18 U	0.038 J	NA	0.060 J	0.19 J
Benzo(a)pyrene	mg/kg	0.35 U	0.067 U	0.067 U	0.67 U	0.067 U	2.7 U	0.033 U	0.032 J	0.055 J	0.21 UJ	0.19 U	0.18 U	0.18 U	0.23 U	0.049 J	0.74 U
Benzo(b)fluoranthene	mg/kg	0.35 U	0.067 U	0.067 U	0.67 U	0.067 U	2.7 U	0.033 U	0.056 J	0.088 J	0.21 U	0.19 U	0.18 U	0.042 J	0.23 U	0.080 J	0.74 U
Benzo(g,h,i)perylene	mg/kg	0.35 U	0.17 U	0.17 U	1.7 U	0.17 U	6.7 U	0.083 U	0.022 J	0.031 J	0.21 UJ	0.19 UJ	0.18 UJ	0.18 UJ	0.23 UJ	0.038 J	0.078 J
Benzo(k)fluoranthene	mg/kg	0.35 U	0.067 U	0.067 U	0.67 U	0.067 U	2.7 U	0.033 U	0.020 J	0.18 U	0.21 U	0.19 U	0.18 U	0.18 U	0.23 U	0.037 J	0.74 U
Benzoic Acid	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA	NA
Biphenyl	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	mg/kg	0.35 U	NA	NA	NA	NA	NA	NA	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.18 U	0.23 U	0.20 U	0.74 U
bis(2-Chloroethyl)ether	mg/kg	0.35 U	NA	NA	NA	NA	NA	NA	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.18 U	0.23 U	0.20 U	0.74 U
bis(2-Chloroisopropyl)ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	mg/kg	0.35 U	NA	NA	NA	NA	NA	NA	0.18 U	4.3	0.21 U	0.19 U	0.18 U	0.18 U	0.23 U	0.20 U	0.50 J
Butylbenzylphthalate	mg/kg	0.35 U	NA	NA	NA	NA	NA	NA	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.18 U	0.23 U	0.20 U	0.74 U
Caprolactam	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	mg/kg	0.35 U	NA	NA	NA	NA	NA	NA	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.18 U	0.23 U	0.066 J	0.74 U
Chrysene	mg/kg	0.35 U	0.067 U	0.067 U	1.6	0.067 U	2.7 U	0.033 U	0.064 J	0.077 J	0.21 U	0.19 U	0.026 J	0.068 J	0.23 U	0.085 J	0.29 J
Diallate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA	NA
Dibenzo(a,h)anthracene	mg/kg	0.35 U	0.17 U	0.17 U	1.7 U	0.17 U	6.7 U	0.083 U	0.18 UJ	0.18 UJ	0.21 UJ	0.19 UJ	0.18 UJ	0.18 UJ	0.23 UJ	0.20 U	0.74 U
Dibenzofuran	mg/kg	0.35 U	NA	NA	NA	NA	NA	NA	0.019 J	0.18 U	0.21 U	0.027 J	0.18 U	0.058 J	0.23 U	0.084 J	0.74 U
Diethylphthalate	mg/kg	0.35 U	NA	NA	NA	NA	NA	NA	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.18 U	0.23 U	0.20 U	0.74 U
Dimethylphthalate	mg/kg	0.35 U	NA	NA	NA	NA	NA	NA	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.18 U	0.23 U	0.20 U	0.74 U
Di-n-Butylphthalate	mg/kg	0.35 U	NA	NA	NA	NA	NA	NA	0.18 U	0.18 U	0.21 U	0.18 U	0.18 U	0.18 U	0.23 U	1.0	0.74 U
Di-n-Octylphthalate	mg/kg	0.35 U	NA	NA	NA	NA	NA	NA	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.18 U	0.23 U	0.20 U	0.74 U
Diphenylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA	NA

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

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Date Collected:	Units	08/23/01	08/08/91	08/08/91	08/08/91	08/08/91	08/31/91	08/31/91	02/08/95	02/08/95	02/08/95	02/08/95	02/08/95	02/08/95	02/08/95	06/06/95	06/07/95
Semivolatile Organics (Cont'd.)																	
Ethyl Methacrylate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0069 U	NA	NA
Ethyl Methanesulfonate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA	NA
Fluoranthene	mg/kg	0.35 U	0.033 U	0.033 U	0.33 U	0.033 U	1.3 U	0.017 U	0.074 J	0.095 J	0.21 U	0.19 U	0.032 J	0.072 J	0.23 U	0.23	0.74 U
Fluorene	mg/kg	0.35 U	0.067 U	0.067 U	0.67 U	0.067 U	3.8	0.033 U	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.11 J	0.23 U	0.074 J	0.74 U
Hexachlorobenzene	mg/kg	0.35 U	NA	NA	NA	NA	NA	NA	0.18 U	0.11 J	0.21 U	0.19 U	0.18 U	0.18 U	0.23 U	0.20 U	0.74 U
Hexachlorobutadiene	mg/kg	0.35 U	NA	NA	NA	NA	NA	NA	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.18 U	0.23 U	0.20 U	0.74 U
Hexachlorocyclopentadiene	mg/kg	0.35 U	NA	NA	NA	NA	NA	NA	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.18 U	0.23 U	0.20 U	0.74 U
Hexachloroethane	mg/kg	0.35 U	NA	NA	NA	NA	NA	NA	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.18 U	0.23 U	0.20 U	0.74 U
Hexachlorophene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 UJ	NA	NA
Hexachloropropene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.3 U	NA	NA
Indeno(1,2,3-cd)pyrene	mg/kg	0.35 U	0.17 U	0.17 U	1.7 U	0.17 U	6.7 U	0.083 U	0.021 J	0.028 J	0.21 UJ	0.19 UJ	0.18 UJ	0.18 UJ	0.23 U	0.023 J	0.74 U
Isophorone	mg/kg	0.35 U	NA	NA	NA	NA	NA	NA	0.18 U	0.18 U	0.21 U	0.21	0.38	0.18 U	0.23 U	0.12 J	0.74 U
Isosafrole	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA	NA
Methapyrilene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.3 U	NA	NA
Methyl Methanesulfonate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA	NA
Naphthalene	mg/kg	0.11 J	0.033 U	0.033 U	0.33 U	0.033 U	1.3 U	0.017 U	0.048 J	0.18 U	0.042 J	0.097 J	0.085 J	0.63	0.23 U	0.31	0.74 U
Nitrobenzene	mg/kg	0.35 U	NA	NA	NA	NA	NA	NA	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.18 U	0.23 U	0.20 U	0.74 U
N-Nitrosodiethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA	NA
N-Nitrosodimethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA	NA
N-Nitroso-di-n-butylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA	NA
N-Nitroso-di-n-propylamine	mg/kg	0.35 U	NA	NA	NA	NA	NA	NA	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.18 U	0.23 U	0.20 U	0.74 U
N-Nitrosodiphenylamine	mg/kg	0.35 U	NA	NA	NA	NA	NA	NA	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.18 U	0.23 U	0.20 U	0.74 U
N-Nitrosomethylethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA	NA
N-Nitrosomorpholine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA	NA
N-Nitrosopiperidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA	NA
N-Nitrosopyrrolidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA	NA
o-Toluidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA	NA
p-Dimethylaminoazobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.45 U	NA	NA
Pentachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA	NA
Pentachloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.1 U	NA	NA
Pentachloronitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.1 U	NA	NA
Pentachlorophenol	mg/kg	0.35 U	NA	NA	NA	NA	NA	NA	0.86 U	0.85 U	1.0 U	0.90 U	0.86 U	0.89 U	1.1 U	0.99 U	3.6 U
Phenacetin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.1 U	NA	NA
Phenanthrene	mg/kg	0.095 J	0.033 U	0.033 U	5.2	0.033 U	23	0.017 U	0.092 J	0.056 J	0.047 J	0.078 J	0.076 J	0.28	0.23 U	0.35	0.74 U
Phenol	mg/kg	0.35 U	NA	NA	NA	NA	NA	NA	0.18 U	0.18 U	0.21 U	0.032 J	0.18 U	0.18 U	0.23 U	0.051 J	0.74 U
Pronamide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.45 U	NA	NA
Pyrene	mg/kg	0.35 U	0.033 U	0.033 U	1.3	0.033 U	2.3	0.017 U	0.057 J	0.072 J	0.024 J	0.19 U	0.027 J	0.090 J	0.23 U	0.17 J	0.41 J
Pyridine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA	NA
Safrole	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA	NA
Sulfotep	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.1 U	NA	NA
Total Methylphenols	mg/kg	0.35 U	NA	NA	NA	NA	NA	NA	0.18 U	0.18 U	0.21 U	0.19 U	0.18 U	0.18 U	0.23 U	0.20 U	0.74 U
Semivolatile Organics-TCLP																	
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Semivolatile Organics-TCLP (Cont'd.)																	
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs																	
Aroclor-1016	mg/kg	0.035 U	NA	NA	NA	NA	NA	NA	0.18 U	0.18 U	0.21 UJ	0.19 U	0.18 U	0.18 UJ	0.23 U	0.20 U	1.9 U
Aroclor-1221	mg/kg	0.035 U	NA	NA	NA	NA	NA	NA	0.18 U	0.18 U	0.21 UJ	0.19 U	0.18 U	0.18 UJ	0.23 U	0.20 U	1.9 U
Aroclor-1232	mg/kg	0.035 U	NA	NA	NA	NA	NA	NA	0.18 U	0.18 U	0.21 UJ	0.19 U	0.18 U	0.18 UJ	0.23 U	0.20 U	1.9 U
Aroclor-1242	mg/kg	0.035 U	0.070 U	0.0070 U	0.010 U	0.0070 U	0.090	0.020 U	0.18 U	0.18 U	0.21 UJ	0.19 U	0.18 U	0.18 UJ	0.23 U	0.20 U	1.9 U
Aroclor-1248	mg/kg	0.035 U	0.070 U	0.0070 U	0.27	0.0070 U	0.030 U	0.020 U	0.18 U	0.18 U	0.21 UJ	0.19 U	0.18 U	0.18 UJ	0.23 U	0.20 U	3.7
Aroclor-1254	mg/kg	0.035 U	0.070 U	0.0070 U	0.24	0.0070 U	0.13	0.020 U	1.6	1.0	0.21 UJ	0.19 U	0.97	0.18 UJ	0.23 U	0.20 U	1.9 U
Aroclor-1260	mg/kg	0.035 U	0.070 U	0.0070 U	0.010 U	0.0070 U	0.030 U	0.020 U	0.36 U	0.35 U	0.21 UJ	0.19 U	0.36 U	0.18 UJ	0.23 U	0.20 U	1.9 U
Total PCBs	mg/kg	0.035 U	0.070 U	0.0070 U	0.51	0.0070 U	0.22	0.020 U	1.6	1.0	0.21 U	0.19 U	0.97	0.18 U	0.23 U	0.20 U	3.7
Organochlorine Pesticides																	
3-Methylcholanthrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.3 U	NA	NA
4,4'-DDD	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0023 U	NA	NA
4,4'-DDE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0023 U	NA	NA
4,4'-DDT	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0023 U	NA	NA
4-Nitroquinoline-1-oxide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.3 U	NA	NA
Aldrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0012 U	NA	NA
Alpha-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0012 U	NA	NA
Alpha-Chlordane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0023 U	NA	NA
Benzo(a)anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA	NA
Beta-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0012 UJ	NA	NA
Delta-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0012 U	NA	NA
Dieldrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0023 U	NA	NA
Endosulfan I	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0023 U	NA	NA
Endosulfan II	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0023 U	NA	NA
Endosulfan Sulfate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0023 U	NA	NA
Endrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0023 U	NA	NA
Endrin Aldehyde	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0023 U	NA	NA
Endrin Ketone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0012 U	NA	NA
Gamma-Chlordane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0023 U	NA	NA
Heptachlor	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0012 U	NA	NA
Heptachlor Epoxide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0012 U	NA	NA
Isodrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.011 U	NA	NA
Kepone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	NA	NA
Methoxychlor	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.034 UJ	NA	NA
Toxaphene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.12 U	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		SB-01A	SB-02	SB-02	SB-03	SB-03	SB-04	SB-04	SB-304	SB-304	SB-304	SB-305	SB-305	SB-305	SB-305	SB-312	SB-313
Sample Depth (ft bgs):		5 - 7	6 - 8	10 - 12	8 - 10	14 - 16	6 - 8	14 - 16	0 - 1	2 - 4	6 - 8	0 - 1	2 - 4	6 - 8	10 - 12	8 - 10	4 - 6
Date Collected:	Units	08/23/01	08/08/91	08/08/91	08/08/91	08/08/91	08/31/91	08/31/91	02/08/95	02/08/95	02/08/95	02/08/95	02/08/95	02/08/95	02/08/95	06/06/95	06/07/95
Organochlorine Pesticides-TCLP																	
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Technical Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides																	
2,4,5-T	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.034 U	NA	NA
2,4,5-TP	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.034 U	NA	NA
2,4-D	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.14 U	NA	NA
Dinoseb	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.014 UJ	NA	NA
Herbicides-TCLP																	
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans																	
2,3,7,8-TCDD	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0000011 U	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00094	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0000015 U	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0035	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0000024 U	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0056 J	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0000011 U	NA	NA
2,3,7,8-TCDD (TEQ)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.000748	NA	NA
TPH																	
Total Petroleum Hydrocarbons - extractable (DRO)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1,200	1,400

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:	Units	SB-319	SB-325	SB-336	SB-337	SB-338	SB-338	SB-339	SB-340	SB-341	SB-342	SB-342	SB-343	SB-344	SB-345	SB-346	SB-347
Sample Depth (ft bgs):		14 - 16	8 - 10	0 - 2	4 - 6	2 - 4	6 - 8	2 - 4	2 - 4	2 - 4	2 - 4	4 - 6	2 - 4	2 - 4	2 - 4	2 - 4	2 - 4
Date Collected:		06/13/95	06/14/95	06/23/95	06/23/95	06/26/95	06/26/95	06/26/95	06/26/95	06/26/95	06/26/95	06/26/95	06/26/95	06/26/95	06/27/95	06/27/95	06/27/95
Semivolatile Organics																	
1,2,3,4-Tetrachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,5-Tetrachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4,5-Tetrachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	26 U	16 U	0.35 U	0.18 U	0.18 U	0.40 U	.18 U [0.17 U	0.18 U	0.24 U	0.18 U	0.18 U	0.18 U	0.20 U	0.18 U	0.18 U	0.18 U
1,2-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	mg/kg	26 U	16 U	0.35 U	0.18 U	0.18 U	0.40 U	.18 U [0.17 U	0.18 U	0.24 U	0.18 U	0.18 U	0.18 U	0.20 U	0.18 U	0.18 U	0.18 U
2,3,4,6-Tetrachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,5,6-Tetrachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	mg/kg	26 U	16 U	0.35 U	0.18 U	0.18 U	0.40 U	.18 U [0.17 U	0.18 U	0.24 U	0.18 U	0.18 U	0.18 U	0.20 U	0.18 U	0.18 U	0.18 U
2,4,6-Trichlorophenol	mg/kg	26 U	16 U	0.35 U	0.18 U	0.18 U	0.40 U	.18 U [0.17 U	0.18 U	0.24 U	0.18 U	0.18 U	0.18 U	0.20 U	0.18 U	0.18 U	0.18 U
2,4-Diaminotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	mg/kg	26 U	16 U	0.35 U	0.18 U	0.18 U	0.40 U	.18 U [0.17 U	0.18 U	0.24 U	0.18 U	0.18 U	0.18 U	0.20 U	0.18 U	0.18 U	0.18 U
2,4-Dimethylphenol	mg/kg	26 U	16 U	0.35 U	0.18 U	0.18 U	0.40 U	.18 U [0.17 U	0.18 U	0.34	0.18 U	0.18 U	0.18 U	0.20 U	0.18 U	0.18 U	0.18 U
2,4-Dinitrophenol	mg/kg	130 U	79 U	1.7 U	0.85 U	0.88 U	1.9 U	.85 U [0.84 U	0.87 U	1.2 U	0.85 U	0.87 U	0.85 U	0.97 U	0.87 U	0.86 U	0.85 U
2,4-Dinitrotoluene	mg/kg	26 U	16 U	0.35 U	0.18 U	0.18 U	0.40 U	.18 U [0.17 U	0.18 U	0.24 U	0.18 U	0.18 U	0.18 U	0.20 U	0.18 U	0.18 U	0.18 U
2,6-Dichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	mg/kg	26 U	16 U	0.35 U	0.18 U	0.18 U	0.40 U	.18 U [0.17 U	0.18 U	0.24 U	0.18 U	0.18 U	0.18 U	0.20 U	0.18 U	0.18 U	0.18 U
2-Acetylaminofluorene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	mg/kg	26 U	16 U	0.35 U	0.18 U	0.18 U	0.40 U	.18 U [0.17 U	0.18 U	0.24 U	0.18 U	0.18 U	0.18 U	0.20 U	0.18 U	0.18 U	0.18 U
2-Chlorophenol	mg/kg	26 U	16 U	0.35 U	0.18 U	0.18 U	0.40 U	.18 U [0.17 U	0.18 U	0.24 U	0.18 U	0.18 U	0.18 U	0.20 U	0.18 U	0.18 U	0.18 U
2-Methylnaphthalene	mg/kg	26 U	16 U	0.15 J	0.28	0.068 J	0.97	.12 J [0.17 U	0.18 U	2.0	0.24	0.59	0.041 J	0.20 U	0.51	0.054 J	0.26
2-Methylphenol	mg/kg	26 U	16 U	0.35 U	0.18 U	0.18 U	0.40 U	.18 U [0.17 U	0.18 U	0.21 J	0.18 U	0.18 U	0.18 U	0.20 U	0.18 U	0.18 U	0.18 U
2-Naphthylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	mg/kg	130 U	79 U	1.7 U	0.85 U	0.88 U	1.9 U	.85 U [0.84 U	0.87 U	1.2 U	0.85 U	0.87 U	0.85 U	0.97 U	0.87 U	0.86 U	0.85 U
2-Nitrophenol	mg/kg	26 U	16 U	0.35 U	0.18 U	0.18 U	0.40 U	.18 U [0.17 U	0.18 U	0.24 U	0.18 U	0.18 U	0.18 U	0.20 U	0.18 U	0.18 U	0.18 U
2-Picoline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	mg/kg	52 U	32 U	0.70 U	0.35 U	0.36 U	0.79 U	.35 U [0.35 U	0.36 U	0.48 U	0.35 U	0.36 U	0.35 U	0.40 U	0.36 U	0.36 U	0.35 U
3,3'-Dimethylbenzidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	mg/kg	130 U	79 U	1.7 U	0.85 U	0.88 U	1.9 U	.85 U [0.84 U	0.87 U	1.2 U	0.85 U	0.87 U	0.85 U	0.97 U	0.87 U	0.86 U	0.85 U
4,4'-Methylene-bis(2-chloroaniline)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	mg/kg	130 U	79 U	1.7 U	0.85 U	0.88 U	1.9 U	.85 U [0.84 U	0.87 U	1.2 U	0.85 U	0.87 U	0.85 U	0.97 U	0.87 U	0.86 U	0.85 U
4-Aminobiphenyl	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		SB-319	SB-325	SB-336	SB-337	SB-338	SB-338	SB-339	SB-340	SB-341	SB-342	SB-342	SB-343	SB-344	SB-345	SB-346	SB-347
Sample Depth (ft bgs):		14 - 16	8 - 10	0 - 2	4 - 6	2 - 4	6 - 8	2 - 4	2 - 4	2 - 4	2 - 4	4 - 6	2 - 4	2 - 4	2 - 4	2 - 4	2 - 4
Date Collected:	Units	06/13/95	06/14/95	06/23/95	06/23/95	06/26/95	06/26/95	06/26/95	06/26/95	06/26/95	06/26/95	06/26/95	06/26/95	06/26/95	06/27/95	06/27/95	06/27/95
Semivolatile Organics (Cont'd.)																	
4-Bromophenyl-phenylether	mg/kg	26 U	16 U	0.35 U	0.18 U	0.18 U	0.40 U	.18 U [0.17 U	0.18 U	0.24 U	0.18 U	0.18 U	0.18 U	0.20 U	0.18 U	0.18 U	0.18 U
4-Chloro-3-Methylphenol	mg/kg	26 U	16 U	0.35 U	0.18 U	0.18 U	0.40 U	.18 U [0.17 U	0.18 U	0.24 U	0.18 U	0.18 U	0.18 U	0.20 U	0.18 U	0.18 U	0.18 U
4-Chloroaniline	mg/kg	26 U	16 U	0.35 U	0.18 U	0.18 U	0.40 U	.18 U [0.17 U	0.18 U	0.24 U	0.18 U	0.18 U	0.18 U	0.20 U	0.18 U	0.18 U	0.18 U
4-Chlorobenzilate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	mg/kg	26 U	16 U	0.35 U	0.18 U	0.18 U	0.40 U	.18 U [0.17 U	0.18 U	0.24 U	0.18 U	0.18 U	0.18 U	0.20 U	0.18 U	0.18 U	0.18 U
4-Methylphenol	mg/kg	26 U	16 U	0.35 U	0.042 J	0.18 U	0.40 U	.18 U [0.17 U	0.18 U	0.16 J	0.18 U	0.052 J	0.18 U	0.20 U	0.18 U	0.18 U	0.18 U
4-Nitroaniline	mg/kg	130 U	79 U	1.7 U	0.85 U	0.88 U	1.9 U	.85 U [0.84 U	0.87 U	1.2 U	0.85 U	0.87 U	0.85 U	0.97 U	0.87 U	0.86 U	0.85 U
4-Nitrophenol	mg/kg	130 U	79 U	1.7 U	0.85 U	0.88 U	1.9 U	.85 U [0.84 U	0.87 U	1.2 U	0.85 U	0.87 U	0.85 U	0.97 U	0.87 U	0.86 U	0.85 U
4-Nitroquinoline-1-oxide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/kg	26 U	16 U	0.35 U	0.18 U	0.18 U	0.092 J	.18 U [0.17 U	0.18 U	0.24 U	0.18 U	0.18 U	0.18 U	0.20 U	0.049 J	0.18 U	0.18 U
Acenaphthylene	mg/kg	26 U	16 U	0.35 U	0.18 U	0.18 U	0.40 U	.18 U [0.17 U	0.18 U	0.24 U	0.18 U	0.18 U	0.18 U	0.20 U	0.18 U	0.18 U	0.18 U
Acetophenone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/kg	26 U	16 U	0.35 U	0.030 J	0.18 U	0.40 U	.18 U [0.17 U	0.18 U	0.11 J	0.18 U	0.18 U	0.18 U	0.20 U	0.058 J	0.18 U	0.18 U
Aramite	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/kg	26 U	16 U	0.35 U	0.030 J	0.18 U	0.22 J	.18 U [0.17 U	0.18 U	0.063 J	0.18 U	0.049 J	0.18 U	0.20 U	0.21	0.11 J	0.11 J
Benzo(a)pyrene	mg/kg	26 U	16 U	0.35 U	0.18 U	0.18 U	0.40 U	.18 U [0.17 U	0.18 U	0.055 J	0.18 U	0.18 U	0.18 U	0.20 U	0.047 J	0.079 J	0.18 U
Benzo(b)fluoranthene	mg/kg	26 U	16 U	0.35 U	0.18 U	0.18 U	0.40 U	.18 U [0.17 U	0.18 U	0.24 U	0.18 U	0.18 U	0.18 U	0.20 U	0.18	0.12 J	0.057 J
Benzo(g,h,i)perylene	mg/kg	26 U	16 U	0.35 U	0.18 U	0.18 U	0.40 U	.18 U [0.17 U	0.18 U	0.24 U	0.18 U	0.18 U	0.18 U	0.20 U	0.040 J	0.074 J	0.18 U
Benzo(k)fluoranthene	mg/kg	26 U	16 U	0.35 U	0.18 U	0.18 U	0.40 U	.18 U [0.17 U	0.18 U	0.24 U	0.18 U	0.18 U	0.18 U	0.20 U	0.18 U	0.067 J	0.18 U
Benzoic Acid	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	mg/kg	26 U	16 U	0.35 U	0.18 U	0.18 U	0.40 U	.18 U [0.17 U	0.18 U	0.24 U	0.18 U	0.18 U	0.18 U	0.20 U	0.18 U	0.18 U	0.18 U
bis(2-Chloroethyl)ether	mg/kg	26 U	16 U	0.35 U	0.18 U	0.18 U	0.40 U	.18 U [0.17 U	0.18 U	0.24 U	0.18 U	0.18 U	0.18 U	0.20 U	0.18 U	0.18 U	0.18 U
bis(2-Chloroisopropyl)ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	mg/kg	26 U	16 U	0.35 U	0.30	0.044 J	0.40 U	093 J [0.042	0.067 J	0.17 J	0.18 U	0.18 U	0.098 J	0.081 J	0.18 U	0.078 J	0.18 U
Butylbenzylphthalate	mg/kg	26 U	16 U	0.35 U	0.18 U	0.18 U	0.40 U	.18 U [0.17 U	0.18 U	0.24 U	0.18 U	0.18 U	0.18 U	0.20 U	0.18 U	0.18 U	0.18 U
Caprolactam	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	mg/kg	26 U	16 U	0.35 U	0.18 U	0.18 U	0.40 U	.18 U [0.17 U	0.18 U	0.24 U	0.18 U	0.18 U	0.18 U	0.20 U	0.18 U	0.18 U	0.18 U
Chrysene	mg/kg	26 U	16 U	0.35 U	0.058 J	0.18 U	0.45	.18 U [0.17 U	0.18 U	0.065 J	0.039 J	0.040 J	0.18 U	0.20 U	0.080 J	0.12 J	0.096 J
Diallate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	mg/kg	26 U	16 U	0.35 U	0.18 U	0.18 U	0.40 U	.18 U [0.17 U	0.18 U	0.24 U	0.18 U	0.18 U	0.18 U	0.20 U	0.18 U	0.18 U	0.18 U
Dibenzofuran	mg/kg	26 U	16 U	0.35 U	0.049 J	0.18 U	0.40 U	.18 U [0.17 U	0.18 U	0.35	0.18 U	0.056 J	0.18 U	0.20 U	0.049 J	0.18 U	0.18 U
Diethylphthalate	mg/kg	26 U	16 U	0.35 U	0.18 U	0.18 U	0.40 U	.18 U [0.17 U	0.18 U	0.24 U	0.18 U	0.18 U	0.18 U	0.20 U	0.18 U	0.18 U	0.18 U
Dimethylphthalate	mg/kg	26 U	16 U	0.35 U	0.18 U	0.18 U	0.40 U	.18 U [0.17 U	0.18 U	0.24 U	0.18 U	0.18 U	0.18 U	0.20 U	0.18 U	0.18 U	0.18 U
Di-n-Butylphthalate	mg/kg	26 U	16 U	0.35 U	0.18 U	0.18 U	0.40 U	.18 U [0.17 U	0.042 J	0.27	0.21	0.10 J	0.81	0.22	1.6	0.77	2.4
Di-n-Octylphthalate	mg/kg	26 U	16 U	0.35 U	0.44	0.18 U	0.40 U	.18 U [0.17 U	0.18 U	0.24 U	0.18 U	0.18 U	0.18 U	0.20 U	0.18 U	0.18 U	0.18 U
Diphenylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:	Units	SB-319	SB-325	SB-336	SB-337	SB-338	SB-338	SB-339	SB-340	SB-341	SB-342	SB-342	SB-343	SB-344	SB-345	SB-346	SB-347
Sample Depth (ft bgs):		14 - 16	8 - 10	0 - 2	4 - 6	2 - 4	6 - 8	2 - 4	2 - 4	2 - 4	2 - 4	4 - 6	2 - 4	2 - 4	2 - 4	2 - 4	2 - 4
Date Collected:		06/13/95	06/14/95	06/23/95	06/23/95	06/26/95	06/26/95	06/26/95	06/26/95	06/26/95	06/26/95	06/26/95	06/26/95	06/26/95	06/27/95	06/27/95	06/27/95
Semivolatile Organics (Cont'd.)																	
Ethyl Methacrylate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	mg/kg	26 U	16 U	0.35 U	0.071 J	0.18 U	0.13 J	036 J [0.17	0.18 U	0.19 J	0.053 J	0.10 J	0.18 U	0.20 U	0.20	0.25	0.073 J
Fluorene	mg/kg	26 U	16 U	0.35 U	0.18 U	0.18 U	0.28 J	039 J [0.17	0.18 U	0.20 J	0.041 J	0.11 J	0.18 U	0.20 U	0.074 J	0.18 U	0.18 U
Hexachlorobenzene	mg/kg	26 U	16 U	0.35 U	0.18 U	0.18 U	0.40 U	.18 U [0.17	0.18 U	0.24 U	0.18 U	0.18 U	0.18 U	0.20 U	0.18 U	0.18 U	0.18 U
Hexachlorobutadiene	mg/kg	26 U	16 U	0.35 U	0.18 U	0.18 U	0.40 U	.18 U [0.17	0.18 U	0.24 U	0.18 U	0.18 U	0.18 U	0.20 U	0.18 U	0.18 U	0.18 U
Hexachlorocyclopentadiene	mg/kg	26 U	16 U	0.35 U	0.18 U	0.18 U	0.40 U	.18 U [0.17	0.18 U	0.24 U	0.18 U	0.18 U	0.18 U	0.20 U	0.18 U	0.18 U	0.18 U
Hexachloroethane	mg/kg	26 U	16 U	0.35 U	0.18 U	0.18 U	0.40 U	.18 U [0.17	0.18 U	0.24 U	0.18 U	0.18 U	0.18 U	0.20 U	0.18 U	0.18 U	0.18 U
Hexachlorophene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloropropene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	mg/kg	26 U	16 U	0.35 U	0.18 U	0.18 U	0.088 J	.18 U [0.17	0.18 U	0.24 U	0.18 U	0.18 U	0.18 U	0.20 U	0.072 J	0.065 J	0.18 U
Isophorone	mg/kg	26 U	16 U	0.35 U	0.18 U	0.18 U	0.40 U	.18 U [0.17	0.18 U	0.24 U	0.18 U	0.18 U	0.18 U	0.20 U	0.18 U	0.18 U	0.18 U
Isosafrole	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/kg	26 U	16 U	0.080 J	0.22	0.059 J	0.28 J	.12 J [0.17	0.18 U	1.5	0.17 J	0.57	0.18 U	0.20 U	0.22	0.038 J	0.12 J
Nitrobenzene	mg/kg	26 U	16 U	0.35 U	0.18 U	0.18 U	0.40 U	.18 U [0.17	0.18 U	0.24 U	0.18 U	0.18 U	0.18 U	0.20 U	0.18 U	0.18 U	0.18 U
N-Nitrosodiethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	mg/kg	26 U	16 U	0.35 U	0.18 U	0.18 U	0.40 U	.18 U [0.17	0.18 U	0.24 U	0.18 U	0.18 U	0.18 U	0.20 U	0.18 U	0.18 U	0.18 U
N-Nitrosodiphenylamine	mg/kg	26 U	16 U	0.35 U	0.18 U	0.18 U	0.40 U	.18 U [0.17	0.18 U	0.24 U	0.18 U	0.18 U	0.18 U	0.20 U	0.18 U	0.18 U	0.18 U
N-Nitrosomethylethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	mg/kg	130 U	79 U	1.7 U	0.85 U	0.88 U	1.9 U	.85 U [0.84	0.87 U	1.2 U	0.85 U	0.87 U	0.85 U	0.97 U	0.87 U	0.86 U	0.85 U
Phenacetin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	mg/kg	7.7 J	16 U	0.10 J	0.21	0.092 J	1.7	.20 [0.037 J	0.18 U	0.89	0.18	0.46	0.043 J	0.055 J	0.40	0.18 U	0.14 J
Phenol	mg/kg	26 U	16 U	0.35 U	0.18 U	0.18 U	0.40 U	.18 U [0.17	0.18 U	0.12 J	0.18 U	0.18 U	0.18 U	0.20 U	0.18 U	0.18 U	0.18 U
Pronamide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	mg/kg	26 U	16 U	0.35 U	0.087 J	0.18 U	0.38 J	039 J [0.17	0.18 U	0.14 J	0.059 J	0.12 J	0.18 U	0.20 U	0.29	0.21	0.080 J
Pyridine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	mg/kg	26 U	16 U	0.35 U	0.18 U	0.18 U	0.40 U	.18 U [0.17	0.18 U	0.21 J	0.18 U	0.18 U	0.18 U	0.20 U	0.18 U	0.18 U	0.18 U
Semivolatile Organics-TCLP																	
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	40 U	NA	NA	NA	NA	40 U	40 U	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	40 U	NA	NA	NA	NA	40 U	40 U	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	40 U	NA	NA	NA	NA	40 U	40 U	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	40 U	NA	NA	NA	NA	40 U	40 U	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		SB-319	SB-325	SB-336	SB-337	SB-338	SB-338	SB-339	SB-340	SB-341	SB-342	SB-342	SB-343	SB-344	SB-345	SB-346	SB-347
Sample Depth (ft bgs):		14 - 16	8 - 10	0 - 2	4 - 6	2 - 4	6 - 8	2 - 4	2 - 4	2 - 4	2 - 4	4 - 6	2 - 4	2 - 4	2 - 4	2 - 4	2 - 4
Date Collected:	Units	06/13/95	06/14/95	06/23/95	06/23/95	06/26/95	06/26/95	06/26/95	06/26/95	06/26/95	06/26/95	06/26/95	06/26/95	06/26/95	06/27/95	06/27/95	06/27/95
Semivolatile Organics-TCLP (Cont'd.)																	
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	40 U	NA	NA	NA	NA	40 U	40 U	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	40 U	NA	NA	NA	NA	40 U	40 U	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	40 U	NA	NA	NA	NA	40 U	40 U	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	40 U	NA	NA	NA	NA	40 U	40 U	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	200 U	NA	NA	NA	NA	200 U	200 U	NA	NA	NA	NA
Pyridine	ug/L	NA	NA	NA	NA	NA	40 U	NA	NA	NA	NA	40 U	40 U	NA	NA	NA	NA
Total Methylphenols	ug/L	NA	NA	NA	NA	NA	40 U	NA	NA	NA	NA	40 U	40 U	NA	NA	NA	NA
PCBs																	
Aroclor-1016	mg/kg	0.22 UJ	0.20 UJ	0.17 U	0.35 U	0.036 U	0.040 U	035 U [0.035	0.036 U	0.048 U	0.035 U	0.036 U	0.035 U	0.040 U	0.036 U	0.036 U	0.035 U
Aroclor-1221	mg/kg	0.22 UJ	0.20 UJ	0.17 U	0.35 U	0.036 U	0.040 U	035 U [0.035	0.036 U	0.048 U	0.035 U	0.036 U	0.035 U	0.040 U	0.036 U	0.036 U	0.035 U
Aroclor-1232	mg/kg	0.22 UJ	0.20 UJ	0.17 U	0.35 U	0.036 U	0.040 U	035 U [0.035	0.036 U	0.048 U	0.035 U	0.036 U	0.035 U	0.040 U	0.036 U	0.036 U	0.035 U
Aroclor-1242	mg/kg	0.22 UJ	0.20 UJ	0.17 U	0.91	0.036 U	0.040 U	035 U [0.035	0.036 U	0.048 U	0.035 U	0.036 U	0.035 U	0.040 U	0.036 U	0.036 U	0.035 U
Aroclor-1248	mg/kg	0.22 UJ	0.20 UJ	0.17 U	0.35 U	0.036 U	0.040 U	035 U [0.035	0.036 U	0.048 U	0.035 U	0.036 U	0.035 U	0.040 U	0.036 U	0.036 U	0.035 U
Aroclor-1254	mg/kg	0.22 UJ	0.20 UJ	0.17 U	0.70 U	0.036 U	0.040 U	035 U [0.035	0.036 U	0.048 U	0.077	0.051	0.035 U	0.040 U	0.037	0.069	0.15
Aroclor-1260	mg/kg	0.22 UJ	0.20 UJ	0.17 U	1.5	0.036 U	0.040 U	035 U [0.035	0.036 U	0.048 U	0.035 U	0.036 U	0.035 U	0.040 U	0.036 U	0.036 U	0.035 U
Total PCBs	mg/kg	0.22 U	0.20 U	0.17 U	2.4	0.036 U	0.040 U	035 U [0.035	0.036 U	0.048 U	0.077	0.051	0.035 U	0.040 U	0.037	0.069	0.15
Organochlorine Pesticides																	
3-Methylcholanthrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDD	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroquinoline-1-oxide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		SB-319	SB-325	SB-336	SB-337	SB-338	SB-338	SB-339	SB-340	SB-341	SB-342	SB-342	SB-343	SB-344	SB-345	SB-346	SB-347
Sample Depth (ft bgs):		14 - 16	8 - 10	0 - 2	4 - 6	2 - 4	6 - 8	2 - 4	2 - 4	2 - 4	2 - 4	4 - 6	2 - 4	2 - 4	2 - 4	2 - 4	2 - 4
Date Collected:	Units	06/13/95	06/14/95	06/23/95	06/23/95	06/26/95	06/26/95	06/26/95	06/26/95	06/26/95	06/26/95	06/26/95	06/26/95	06/26/95	06/27/95	06/27/95	06/27/95
Organochlorine Pesticides-TCLP																	
Endrin	ug/L	NA	NA	NA	NA	NA	0.5 U	NA	NA	NA	NA	0.5 U	0.5 U	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U	0.1 U	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U	0.1 U	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U	0.1 U	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	1 U	NA	NA	NA	NA
Technical Chlordane	ug/L	NA	NA	NA	NA	NA	0.5 U	NA	NA	NA	NA	0.5 U	0.5 U	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	5 U	5 U	NA	NA	NA	NA
Herbicides																	
2,4,5-T	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides-TCLP																	
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	100 U	NA	NA	NA	NA	100 U	100 U	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	500 U	NA	NA	NA	NA	500 U	500 U	NA	NA	NA	NA
Dioxins/Furans																	
2,3,7,8-TCDD	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																	
Total Petroleum Hydrocarbons - extractable (DRO)	mg/kg	30,000	5,800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:	Units	SB-348	SB-349	SB-350	SB-351	SB-352	SB-353	SB-354	SB-355	SB-362	SB-362	SB-362	SB-363	SB-363	SB-363	SB-374	SB-375
Sample Depth (ft bgs):		2 - 4	2 - 4	4 - 6	0 - 2	0 - 2	0 - 2	0 - 2	2 - 4	0 - 2	4 - 6	8 - 10	0 - 2	4 - 6	8 - 10	9.5 - 10.5	6.5 - 7.5
Date Collected:		06/27/95	06/27/95	06/27/95	06/27/95	06/28/95	06/28/95	06/28/95	06/28/95	09/28/95	09/28/95	09/28/95	09/28/95	09/28/95	09/28/95	07/24/00	07/24/00
Semivolatile Organics																	
1,2,3,4-Tetrachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,5-Tetrachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4,5-Tetrachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	0.19 U	0.19 U	0.36 U	0.37 U	0.19 U	0.90 U	0.18 U	0.27 U	0.77 U	0.72 U	0.21 U	1.8 U	1.8 U	2.0 U	NA	NA
1,2-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	mg/kg	0.19 U	0.19 U	0.36 U	0.37 U	0.19 U	0.90 U	0.18 U	0.27 U	0.77 U	0.72 U	0.21 U	1.8 U	1.8 U	2.0 U	NA	NA
2,3,4,6-Tetrachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,5,6-Tetrachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	mg/kg	0.19 U	0.19 U	0.36 U	0.37 U	0.19 U	0.90 U	0.18 U	0.27 U	0.77 UJ	0.72 U	0.21 U	1.8 U	1.8 U	2.0 U	NA	NA
2,4,6-Trichlorophenol	mg/kg	0.19 U	0.19 U	0.36 U	0.37 U	0.19 U	0.90 U	0.18 U	0.27 U	0.77 UJ	0.72 U	0.21 U	1.8 U	1.8 U	2.0 U	NA	NA
2,4-Diaminotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	mg/kg	0.19 U	0.19 U	0.36 U	0.37 U	0.19 U	0.90 U	0.18 U	0.27 U	0.77 U	0.72 U	0.21 U	1.8 U	1.8 U	2.0 U	NA	NA
2,4-Dimethylphenol	mg/kg	0.19 U	0.085 J	0.36 U	0.37 U	0.19 U	0.90 U	0.18 U	0.27 U	0.77 UJ	0.72 U	0.21 U	1.8 U	1.8 U	2.0 U	NA	NA
2,4-Dinitrophenol	mg/kg	0.91 U	0.94 U	1.8 U	1.8 U	0.90 U	4.4 U	0.86 U	1.3 U	3.8 UJ	3.5 U	1.0 U	8.9 U	8.8 U	9.8 U	NA	NA
2,4-Dinitrotoluene	mg/kg	0.19 U	0.19 U	0.36 U	0.37 U	0.19 U	0.90 U	0.18 U	0.27 U	0.77 U	0.72 U	0.21 U	1.8 U	1.8 U	2.0 U	NA	NA
2,6-Dichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	mg/kg	0.19 U	0.19 U	0.36 U	0.37 U	0.19 U	0.90 U	0.18 U	0.27 U	0.77 U	0.72 U	0.21 U	1.8 U	1.8 U	2.0 U	NA	NA
2-Acetylaminofluorene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	mg/kg	0.19 U	0.19 U	0.36 U	0.37 U	0.19 U	0.90 U	0.18 U	0.27 U	0.77 U	0.72 U	0.21 U	1.8 U	1.8 U	2.0 U	NA	NA
2-Chlorophenol	mg/kg	0.19 U	0.19 U	0.36 U	0.37 U	0.19 U	0.90 U	0.18 U	0.27 U	0.77 U	0.72 U	0.21 U	1.8 U	1.8 U	2.0 U	NA	NA
2-Methylnaphthalene	mg/kg	0.16 J	0.42	0.12 J	0.37 U	0.092 J	0.90 U	0.039 J	0.072 J	0.77 U	0.72 U	0.10 J	1.8 U	1.8 U	0.35 J	NA	NA
2-Methylphenol	mg/kg	0.19 U	0.057 J	0.36 U	0.37 U	0.19 U	0.90 U	0.18 U	0.27 U	0.77 UJ	0.72 U	0.21 U	1.8 U	1.8 U	2.0 U	NA	NA
2-Naphthylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	mg/kg	0.91 U	0.94 U	1.8 U	1.8 U	0.90 U	4.4 U	0.86 U	1.3 U	3.8 U	3.5 U	1.0 U	8.9 U	8.8 U	9.8 U	NA	NA
2-Nitrophenol	mg/kg	0.19 U	0.19 U	0.36 U	0.37 U	0.19 U	0.90 U	0.18 U	0.27 U	0.77 UJ	0.72 U	0.21 U	1.8 U	1.8 U	2.0 U	NA	NA
2-Picoline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	mg/kg	0.38 U	0.39 U	0.73 U	0.74 U	0.37 U	1.8 U	0.35 U	0.55 U	R	1.4 U	0.41 U	3.7 U	3.6 U	4.0 U	NA	NA
3,3'-Dimethylbenzidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	mg/kg	0.91 U	0.94 U	1.8 U	1.8 U	0.90 U	4.4 U	0.86 U	1.3 U	3.8 U	3.5 U	1.0 U	8.9 U	8.8 U	9.8 U	NA	NA
4,4'-Methylene-bis(2-chloroaniline)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	mg/kg	0.91 U	0.94 U	1.8 U	1.8 U	0.90 U	4.4 U	0.86 U	1.3 U	3.8 UJ	3.5 U	1.0 U	8.9 U	8.8 U	9.8 U	NA	NA
4-Aminobiphenyl	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		SB-348	SB-349	SB-350	SB-351	SB-352	SB-353	SB-354	SB-355	SB-362	SB-362	SB-362	SB-363	SB-363	SB-363	SB-374	SB-375
Sample Depth (ft bgs):		2 - 4	2 - 4	4 - 6	0 - 2	0 - 2	0 - 2	0 - 2	2 - 4	0 - 2	4 - 6	8 - 10	0 - 2	4 - 6	8 - 10	9.5 - 10.5	6.5 - 7.5
Date Collected:	Units	06/27/95	06/27/95	06/27/95	06/27/95	06/28/95	06/28/95	06/28/95	06/28/95	09/28/95	09/28/95	09/28/95	09/28/95	09/28/95	09/28/95	07/24/00	07/24/00
Semivolatile Organics (Cont'd.)																	
4-Bromophenyl-phenylether	mg/kg	0.19 U	0.19 U	0.36 U	0.37 U	0.19 U	0.90 U	0.18 U	0.27 U	0.77 U	0.72 U	0.21 U	1.8 U	1.8 U	2.0 U	NA	NA
4-Chloro-3-Methylphenol	mg/kg	0.19 U	0.19 U	0.36 U	0.37 U	0.19 U	0.90 U	0.18 U	0.27 U	0.77 UJ	0.72 U	0.21 U	1.8 U	1.8 U	2.0 U	NA	NA
4-Chloroaniline	mg/kg	0.19 U	0.19 U	0.36 U	0.37 U	0.19 U	0.90 U	0.18 U	0.27 U	0.77 U	0.72 U	0.21 U	1.8 U	1.8 U	2.0 U	NA	NA
4-Chlorobenzilate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	mg/kg	0.19 U	0.19 U	0.36 U	0.37 U	0.19 U	0.90 U	0.18 U	0.27 U	0.77 U	0.72 U	0.21 U	1.8 U	1.8 U	2.0 U	NA	NA
4-Methylphenol	mg/kg	0.19 U	0.19 U	0.36 U	0.37 U	0.19 U	0.90 U	0.18 U	0.27 U	0.77 UJ	0.72 U	0.21 U	1.8 U	1.8 U	2.0 U	NA	NA
4-Nitroaniline	mg/kg	0.91 U	0.94 U	1.8 U	1.8 U	0.90 U	4.4 U	0.86 U	1.3 U	3.8 U	3.5 U	1.0 U	8.9 U	8.8 U	9.8 U	NA	NA
4-Nitrophenol	mg/kg	0.91 U	0.94 U	1.8 U	1.8 U	0.90 U	4.4 U	0.86 U	1.3 U	3.8 UJ	3.5 U	1.0 U	8.9 U	8.8 U	9.8 U	NA	NA
4-Nitroquinoline-1-oxide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/kg	0.19 U	0.19 U	0.36 U	0.37 U	0.19 U	0.90 U	0.18 U	0.27 U	0.77 U	0.72 U	0.21 U	1.8 U	1.8 U	2.0 U	NA	NA
Acenaphthylene	mg/kg	0.19 U	0.19 U	0.36 U	0.37 U	0.19 U	0.90 U	0.18 U	0.27 U	0.77 U	0.72 U	0.21 U	1.8 U	1.8 U	0.33 J	NA	NA
Acetophenone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/kg	0.19 U	0.19 U	0.36 U	0.37 U	0.19 U	0.90 U	0.18 U	0.27 U	0.77 U	0.72 U	0.21 U	1.8 U	1.8 U	2.0 U	NA	NA
Aramite	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/kg	0.19 U	0.041 J	0.36 U	0.37 U	0.12 J	0.90 U	0.18 U	0.27 U	0.77 UJ	0.18 J	0.21 U	1.8 U	1.8 U	2.0 U	NA	NA
Benzo(a)pyrene	mg/kg	0.19 U	0.19 U	0.36 U	0.37 U	0.13 J	0.90 U	0.18 U	0.27 U	0.77 UJ	0.17 J	0.21 U	1.8 U	1.8 U	2.0 U	NA	NA
Benzo(b)fluoranthene	mg/kg	0.19 U	0.19 U	0.36 U	0.37 U	0.35	0.90 U	0.18 U	0.27 U	0.77 UJ	0.22 J	0.21 U	1.8 U	1.8 U	2.0 U	NA	NA
Benzo(g,h,i)perylene	mg/kg	0.19 U	0.19 U	0.36 U	0.37 U	0.12 J	0.90 U	0.18 U	0.27 U	0.77 UJ	0.13 J	0.21 U	1.8 U	1.8 U	2.0 U	NA	NA
Benzo(k)fluoranthene	mg/kg	0.19 U	0.19 U	0.36 U	0.37 U	0.064 J	0.90 U	0.18 U	0.27 U	0.77 UJ	0.11 J	0.21 U	1.8 U	1.8 U	2.0 U	NA	NA
Benzoic Acid	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	mg/kg	0.19 U	0.19 U	0.36 U	0.37 U	0.19 U	0.90 U	0.18 U	0.27 U	0.77 U	0.72 U	0.21 U	1.8 U	1.8 U	2.0 U	NA	NA
bis(2-Chloroethyl)ether	mg/kg	0.19 U	0.19 U	0.36 U	0.37 U	0.19 U	0.90 U	0.18 U	0.27 U	0.77 U	0.72 U	0.21 U	1.8 U	1.8 U	2.0 U	NA	NA
bis(2-Chloroisopropyl)ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	mg/kg	0.095 J	0.19 U	0.36 U	0.082 J	0.12 J	0.90 U	0.089 J	0.21 J	R	0.72 U	0.21 U	1.8 U	1.8 U	2.0 U	NA	NA
Butylbenzylphthalate	mg/kg	0.19 U	0.19 U	0.36 U	0.37 U	0.19 U	0.90 U	0.18 U	0.27 U	R	0.72 U	0.21 U	1.8 U	1.8 U	2.0 U	NA	NA
Caprolactam	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	mg/kg	0.19 U	0.19 U	0.36 U	0.37 U	0.19 U	0.90 U	0.18 U	0.27 U	0.77 U	0.72 U	0.21 U	1.8 U	1.8 U	2.0 U	NA	NA
Chrysene	mg/kg	0.19 U	0.19 U	0.36 U	0.37 U	0.25	0.90 U	0.046 J	0.088 J	R	0.27 J	0.21 U	1.8 U	1.8 U	2.0 U	NA	NA
Diallate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	mg/kg	0.19 U	0.19 U	0.36 U	0.37 U	0.19 U	0.90 U	0.18 U	0.27 U	0.77 UJ	0.72 U	0.21 U	1.8 U	1.8 U	2.0 U	NA	NA
Dibenzofuran	mg/kg	0.19 U	0.063 J	0.36 U	0.37 U	0.19 U	0.90 U	0.18 U	0.27 U	0.77 U	0.72 U	0.21 U	1.8 U	1.8 U	2.0 U	NA	NA
Diethylphthalate	mg/kg	0.19 U	0.19 U	0.36 U	0.37 U	0.19 U	0.90 U	0.18 U	0.27 U	0.77 U	0.72 U	0.21 U	1.8 U	1.8 U	2.0 U	NA	NA
Dimethylphthalate	mg/kg	0.19 U	0.19 U	0.36 U	0.37 U	0.19 U	0.90 U	0.18 U	0.27 U	0.77 U	0.72 U	0.21 U	1.8 U	1.8 U	2.0 U	NA	NA
Di-n-Butylphthalate	mg/kg	2.4	3.2	4.1	3.8	1.5	5.2	2.7	4.2	0.77 U	0.72 U	0.21 U	1.8 U	1.8 U	2.0 U	NA	NA
Di-n-Octylphthalate	mg/kg	0.19 U	0.19 U	0.36 U	0.37 U	0.19 U	0.90 U	0.18 U	0.27 U	0.77 UJ	0.72 U	0.21 U	1.8 U	1.8 U	2.0 U	NA	NA
Diphenylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		SB-348	SB-349	SB-350	SB-351	SB-352	SB-353	SB-354	SB-355	SB-362	SB-362	SB-362	SB-363	SB-363	SB-363	SB-374	SB-375
Sample Depth (ft bgs):		2 - 4	2 - 4	4 - 6	0 - 2	0 - 2	0 - 2	0 - 2	2 - 4	0 - 2	4 - 6	8 - 10	0 - 2	4 - 6	8 - 10	9.5 - 10.5	6.5 - 7.5
Date Collected:	Units	06/27/95	06/27/95	06/27/95	06/27/95	06/28/95	06/28/95	06/28/95	06/28/95	09/28/95	09/28/95	09/28/95	09/28/95	09/28/95	09/28/95	07/24/00	07/24/00
Semivolatile Organics (Cont'd.)																	
Ethyl Methacrylate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	mg/kg	0.19 U	0.047 J	0.36 U	0.37 U	0.35	0.90 U	0.18 U	0.058 J	0.77 U	0.42 J	0.027 J	0.51 J	1.8 U	2.0 U	NA	NA
Fluorene	mg/kg	0.19 U	0.073 J	0.36 U	0.37 U	0.19 U	0.90 U	0.18 U	0.27 U	0.77 U	0.72 U	0.21 U	1.8 U	1.8 U	2.0 U	NA	NA
Hexachlorobenzene	mg/kg	0.19 U	0.19 U	0.36 U	0.37 U	0.19 U	0.90 U	0.18 U	0.27 U	0.77 U	0.72 U	0.21 U	1.8 U	1.8 U	2.0 U	NA	NA
Hexachlorobutadiene	mg/kg	0.19 U	0.19 U	0.36 U	0.37 U	0.19 U	0.90 U	0.18 U	0.27 U	0.77 U	0.72 U	0.21 U	1.8 U	1.8 U	2.0 U	NA	NA
Hexachlorocyclopentadiene	mg/kg	0.19 U	0.19 U	0.36 U	0.37 U	0.19 U	0.90 U	0.18 U	0.27 U	0.77 U	0.72 U	0.21 U	1.8 U	1.8 U	2.0 U	NA	NA
Hexachloroethane	mg/kg	0.19 U	0.19 U	0.36 U	0.37 U	0.19 U	0.90 U	0.18 U	0.27 U	0.77 U	0.72 U	0.21 U	1.8 U	1.8 U	2.0 U	NA	NA
Hexachlorophene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloropropene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	mg/kg	0.19 U	0.19 U	0.36 U	0.37 U	0.13 J	0.90 U	0.18 U	0.27 U	0.77 UJ	0.098 J	0.21 U	1.8 U	1.8 U	2.0 U	NA	NA
Isophorone	mg/kg	0.19 U	0.19 U	0.36 U	0.37 U	0.18 J	0.86 J	0.18 U	0.27 U	0.77 U	0.72 U	0.21 U	1.8 U	1.8 U	2.0 U	NA	NA
Isosafrole	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/kg	0.088 J	0.26	0.096 J	0.37 U	0.049 J	0.90 U	0.039 J	0.27 U	0.77 U	0.39 J	0.39	1.8 U	1.8 U	0.40 J	NA	NA
Nitrobenzene	mg/kg	0.19 U	0.19 U	0.36 U	0.37 U	0.19 U	0.90 U	0.18 U	0.27 U	0.77 U	0.72 U	0.21 U	1.8 U	1.8 U	2.0 U	NA	NA
N-Nitrosodiethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	mg/kg	0.19 U	0.19 U	0.36 U	0.37 U	0.19 U	0.90 U	0.18 U	0.27 U	0.77 U	0.72 U	0.21 U	1.8 U	1.8 U	2.0 U	NA	NA
N-Nitrosodiphenylamine	mg/kg	0.19 U	0.19 U	0.36 U	0.37 U	0.19 U	0.90 U	0.18 U	0.27 U	0.77 U	0.72 U	0.21 U	1.8 U	1.8 U	2.0 U	NA	NA
N-Nitrosomethylethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	mg/kg	0.91 U	0.94 U	1.8 U	1.8 U	0.90 U	4.4 U	0.86 U	1.3 U	3.8 UJ	3.5 U	1.0 U	8.9 U	8.8 U	9.8 U	NA	NA
Phenacetin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	mg/kg	0.099 J	0.23	0.16 J	0.37 U	0.13 J	0.29 J	0.050 J	0.091 J	0.77 U	0.26 J	0.031 J	0.57 J	0.51 J	0.68 J	NA	NA
Phenol	mg/kg	0.19 U	0.19 U	0.36 U	0.37 U	0.19 U	0.90 U	0.18 U	0.27 U	0.77 UJ	0.72 U	0.21 U	1.8 U	1.8 U	2.0 U	NA	NA
Pronamide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	mg/kg	0.19 U	0.19 U	0.077 J	0.37 U	0.36	0.90 U	0.18 U	0.061 J	R	0.33 J	0.21 U	0.44 J	0.55 J	2.0 U	NA	NA
Pyridine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	mg/kg	0.19 U	0.057 J	0.36 U	0.37 U	0.19 U	0.90 U	0.18 U	0.27 U	0.77 U	0.72 U	0.21 U	1.8 U	1.8 U	2.0 U	NA	NA
Semivolatile Organics-TCLP																	
1,4-Dichlorobenzene	ug/L	NA	NA	NA	40 U	NA	40 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	40 U	NA	40 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	40 U	NA	40 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	40 U	NA	40 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-3
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SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		SB-348	SB-349	SB-350	SB-351	SB-352	SB-353	SB-354	SB-355	SB-362	SB-362	SB-362	SB-363	SB-363	SB-363	SB-374	SB-375
Sample Depth (ft bgs):		2 - 4	2 - 4	4 - 6	0 - 2	0 - 2	0 - 2	0 - 2	2 - 4	0 - 2	4 - 6	8 - 10	0 - 2	4 - 6	8 - 10	9.5 - 10.5	6.5 - 7.5
Date Collected:	Units	06/27/95	06/27/95	06/27/95	06/27/95	06/28/95	06/28/95	06/28/95	06/28/95	09/28/95	09/28/95	09/28/95	09/28/95	09/28/95	09/28/95	07/24/00	07/24/00
Semivolatile Organics-TCLP (Cont'd.)																	
Hexachlorobenzene	ug/L	NA	NA	NA	40 U	NA	40 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	40 U	NA	40 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	40 U	NA	40 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	40 U	NA	40 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	200 U	NA	200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyridine	ug/L	NA	NA	NA	40 U	NA	40 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	NA	NA	NA	40 U	NA	40 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs																	
Aroclor-1016	mg/kg	0.038 U	0.039 U	0.036 U	0.037 U	0.19 U	0.036 U	0.035 U	0.036 U	3.9 U	0.18 U	0.21 U	3.7 U	0.73 U	0.20 U	0.045 U	046 U [0.045
Aroclor-1221	mg/kg	0.038 U	0.039 U	0.036 U	0.037 U	0.19 U	0.036 U	0.035 U	0.036 U	3.9 U	0.18 U	0.21 U	3.7 U	0.73 U	0.20 U	0.045 U	046 U [0.045
Aroclor-1232	mg/kg	0.038 U	0.039 U	0.036 U	0.037 U	0.19 U	0.036 U	0.035 U	0.036 U	3.9 U	0.18 U	0.21 U	3.7 U	0.73 U	0.20 U	0.045 U	046 U [0.045
Aroclor-1242	mg/kg	0.038 U	0.039 U	0.036 U	0.037 U	0.19 U	0.036 U	0.035 U	0.036 U	3.9 U	0.18 U	0.21 U	3.7 U	0.73 U	0.20 U	0.045 U	046 U [0.045
Aroclor-1248	mg/kg	0.12	0.16	0.036 U	0.11	1.5	0.33	0.035 U	0.036 U	3.9 U	0.18 U	0.32	3.7 U	0.77	0.20 U	0.045 U	046 U [0.045
Aroclor-1254	mg/kg	0.090	0.14	0.036 U	0.037 U	1.5	0.32	0.035 U	0.036 U	3.9 U	0.18 U	0.21 U	3.7 U	0.73 U	0.20 U	0.045 U	046 U [0.045
Aroclor-1260	mg/kg	0.038 U	0.039 U	0.036 U	0.037 U	0.19 U	0.036 U	0.035 U	0.036 U	9.6	0.12 J	0.33	5.5	2.2	0.24	0.045 U	046 U [0.045
Total PCBs	mg/kg	0.21	0.30	0.036 U	0.11	3.0	0.65	0.035 U	0.036 U	9.6	0.12 J	0.65	5.5	3.0	0.24	0.045 U	046 U [0.045
Organochlorine Pesticides																	
3-Methylcholanthrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDD	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroquinoline-1-oxide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Date Collected:	Units	06/27/95	06/27/95	06/27/95	06/27/95	06/28/95	06/28/95	06/28/95	06/28/95	09/28/95	09/28/95	09/28/95	09/28/95	09/28/95	09/28/95	07/24/00	07/24/00
Organochlorine Pesticides-TCLP																	
Endrin	ug/L	NA	NA	NA	0.5 U	NA	0.5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	0.1 U	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	0.1 U	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	0.1 U	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	1 U	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Technical Chlordane	ug/L	NA	NA	NA	0.5 U	NA	0.5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	5 U	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides																	
2,4,5-T	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides-TCLP																	
2,4,5-TP	ug/L	NA	NA	NA	100 U	NA	100 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	500 U	NA	500 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans																	
2,3,7,8-TCDD	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																	
Total Petroleum Hydrocarbons - extractable (DRO)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		SB-376	SB-377	SB-377	SB-378	SB-378	SB-379	SB-379	SB-380	SB-380	SB-381	SB-381	SB-382	SB-382	SB-383	SB-383	SB-384
Sample Depth (ft bgs):		7 - 8	0 - 0.5	0.5 - 1	0 - 0.5	0.5 - 1	0 - 0.5	0.5 - 1	0 - 0.5	0.5 - 1	0 - 0.5	0.5 - 1	0 - 0.5	0.5 - 1	0 - 0.5	0.5 - 1	0 - 0.5
Date Collected:	Units	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00
Semivolatile Organics																	
1,2,3,4-Tetrachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,5-Tetrachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4,5-Tetrachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6-Tetrachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,5,6-Tetrachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Diaminotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Acetylaminofluorene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Naphthylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Picoline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dimethylbenzidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-Methylene-bis(2-chloroaniline)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Aminobiphenyl	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		SB-376	SB-377	SB-377	SB-378	SB-378	SB-379	SB-379	SB-380	SB-380	SB-381	SB-381	SB-382	SB-382	SB-383	SB-383	SB-384
Sample Depth (ft bgs):		7 - 8	0 - 0.5	0.5 - 1	0 - 0.5	0.5 - 1	0 - 0.5	0.5 - 1	0 - 0.5	0.5 - 1	0 - 0.5	0.5 - 1	0 - 0.5	0.5 - 1	0 - 0.5	0.5 - 1	0 - 0.5
Date Collected:	Units	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00
Semivolatile Organics (Cont'd.)																	
4-Bromophenyl-phenylether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorobenzilate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroquinoline-1-oxide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aramite	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzoic Acid	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroisopropyl)ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diallate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diphenylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
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Location ID:		SB-376	SB-377	SB-377	SB-378	SB-378	SB-379	SB-379	SB-380	SB-380	SB-381	SB-381	SB-382	SB-382	SB-383	SB-383	SB-384
Sample Depth (ft bgs):		7 - 8	0 - 0.5	0.5 - 1	0 - 0.5	0.5 - 1	0 - 0.5	0.5 - 1	0 - 0.5	0.5 - 1	0 - 0.5	0.5 - 1	0 - 0.5	0.5 - 1	0 - 0.5	0.5 - 1	0 - 0.5
Date Collected:	Units	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00
Semivolatile Organics (Cont'd.)																	
Ethyl Methacrylate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorophene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloropropene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isosafrole	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomethylethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenacetin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pronamide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyridine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organics-TCLP																	
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Date Collected:	Units	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00
Semivolatile Organics-TCLP (Cont'd.)																	
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs																	
Aroclor-1016	mg/kg	0.045 U	0.35 U	.17 U [0.18 U	0.036 U	0.036 U	0.19 U	0.033 U	0.18 U	0.034 U	0.18 U	0.034 U	0.34 U	0.36 U	0.034 U	0.034 U	0.035 U
Aroclor-1221	mg/kg	0.045 U	0.35 U	.17 U [0.18 U	0.036 U	0.036 U	0.19 U	0.033 U	0.18 U	0.034 U	0.18 U	0.034 U	0.34 U	0.36 U	0.034 U	0.034 U	0.035 U
Aroclor-1232	mg/kg	0.045 U	0.35 U	.17 U [0.18 U	0.036 U	0.036 U	0.19 U	0.033 U	0.18 U	0.034 U	0.18 U	0.034 U	0.34 U	0.36 U	0.034 U	0.034 U	0.035 U
Aroclor-1242	mg/kg	0.045 U	0.35 U	.17 U [0.18 U	0.036 U	0.036 U	0.19 U	0.033 U	0.18 U	0.034 U	0.18 U	0.034 U	0.34 U	0.36 U	0.034 U	0.034 U	0.035 U
Aroclor-1248	mg/kg	0.056 J	0.35 U	.17 U [0.18 U	0.036 U	0.13	0.19 U	0.32	0.97	0.18	0.78	0.22	3.3	3.5	0.034 U	0.034 U	0.035 U
Aroclor-1254	mg/kg	0.045 U	0.35 U	0.38 [0.18 U	0.036 U	0.036 U	0.39	0.033 U	0.18 U	0.034 U	0.18 U	0.034 U	0.34 U	0.36 U	0.19	0.025 J	0.37
Aroclor-1260	mg/kg	0.045 U	1.2	0.19 [1.1]	0.13	0.036 U	0.19 U	0.033 U	0.18 U	0.034 U	0.18 U	0.034 U	0.34 U	0.36 U	0.034 U	0.034 U	0.035 U
Total PCBs	mg/kg	0.056 J	1.2	0.57 [1.1]	0.13	0.13	0.39	0.32	0.97	0.18	0.78	0.22	3.3	3.5	0.19	0.025 J	0.37
Organochlorine Pesticides																	
3-Methylcholanthrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDD	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroquinoline-1-oxide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		SB-376	SB-377	SB-377	SB-378	SB-378	SB-379	SB-379	SB-380	SB-380	SB-381	SB-381	SB-382	SB-382	SB-383	SB-383	SB-384
Sample Depth (ft bgs):		7 - 8	0 - 0.5	0.5 - 1	0 - 0.5	0.5 - 1	0 - 0.5	0.5 - 1	0 - 0.5	0.5 - 1	0 - 0.5	0.5 - 1	0 - 0.5	0.5 - 1	0 - 0.5	0.5 - 1	0 - 0.5
Date Collected:	Units	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00
Organochlorine Pesticides-TCLP																	
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Technical Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides																	
2,4,5-T	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides-TCLP																	
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans																	
2,3,7,8-TCDD	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																	
Total Petroleum Hydrocarbons - extractable (DRO)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		SB-384	SB-385	SB-385	SB-386	SB-386	SB-387	SB-387	SB-388	SB-388	SB-389	SB-390	SB-391	SB-392	SB-393	SB-394	SB-395
Sample Depth (ft bgs):		0.5 - 1	0 - 0.5	0.5 - 1	0 - 0.5	0.5 - 1	0 - 0.5	0.5 - 1	0 - 0.5	0.5 - 1	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5
Date Collected:	Units	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00
Semivolatile Organics																	
1,2,3,4-Tetrachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,5-Tetrachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4,5-Tetrachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.39 U	0.58 U	0.47 U	0.45 U	0.44 U	0.44 U	0.44 U
1,2-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.39 U	0.58 U	0.47 U	0.45 U	0.44 U	0.44 U	0.44 U
1,2-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.39 U	0.58 U	0.47 U	0.45 U	0.44 U	0.44 U	0.44 U
1,3-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.39 U	0.58 U	0.47 U	0.45 U	0.44 U	0.44 U	0.44 U
1,4-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.39 U	0.58 U	0.47 U	0.45 U	0.44 U	0.44 U	0.44 U
2,3,4,6-Tetrachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,5,6-Tetrachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.39 U	0.58 U	0.47 U	0.45 U	0.44 U	0.44 U	0.44 U
2,4,6-Trichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.39 U	0.58 U	0.47 U	0.45 U	0.44 U	0.44 U	0.44 U
2,4-Diaminotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.39 U	0.58 U	0.47 U	0.45 U	0.44 U	0.44 U	0.44 U
2,4-Dimethylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.39 U	0.58 U	0.47 U	0.45 U	0.44 U	0.44 U	0.44 U
2,4-Dinitrophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.9 UJ	2.8 U	2.3 U	2.2 U	2.1 UJ	2.2 U	2.1 U
2,4-Dinitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.39 U	0.58 U	0.47 U	0.45 U	0.44 U	0.44 U	0.44 U
2,6-Dichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.39 U	0.58 U	0.47 U	0.45 U	0.44 U	0.44 U	0.44 U
2-Acetylaminofluorene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.39 U	0.58 U	0.47 U	0.45 U	0.44 U	0.44 U	0.44 U
2-Chlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.39 U	0.58 U	0.47 U	0.45 U	0.44 U	0.44 U	0.44 U
2-Methylnaphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.30 J	0.58 U	0.47 U	0.45 U	0.44 U	0.44 U	0.44 U
2-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.39 U	0.58 U	0.47 U	0.45 U	0.44 U	0.44 U	0.44 U
2-Naphthylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.9 U	2.8 U	2.3 U	2.2 U	2.1 U	2.2 U	2.1 U
2-Nitrophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.39 U	0.58 U	0.47 U	0.45 U	0.44 U	0.44 U	0.44 U
2-Picoline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.9 U	2.8 U	2.3 U	2.2 U	2.1 U	2.2 U	2.1 U
3,3'-Dimethylbenzidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.9 U	2.8 U	2.3 U	2.2 U	2.1 U	2.2 U	2.1 U
4,4'-Methylene-bis(2-chloroaniline)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.9 U	2.8 U	2.3 U	2.2 U	2.1 U	2.2 U	2.1 U
4-Aminobiphenyl	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:	Units	SB-384	SB-385	SB-385	SB-386	SB-386	SB-387	SB-387	SB-388	SB-388	SB-389	SB-390	SB-391	SB-392	SB-393	SB-394	SB-395
Sample Depth (ft bgs):		0.5 - 1	0 - 0.5	0.5 - 1	0 - 0.5	0.5 - 1	0 - 0.5	0.5 - 1	0 - 0.5	0.5 - 1	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5
Date Collected:		07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00
Semivolatile Organics (Cont'd.)																	
4-Bromophenyl-phenylether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.39 U	0.58 U	0.47 U	0.45 U	0.44 U	0.44 U	0.44 U
4-Chloro-3-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.39 U	0.58 U	0.47 U	0.45 U	0.44 U	0.44 U	0.44 U
4-Chloroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.39 U	0.58 U	0.47 U	0.45 U	0.44 U	0.44 U	0.44 U
4-Chlorobenzilate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.39 U	0.58 U	0.47 U	0.45 U	0.44 U	0.44 U	0.44 U
4-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.39 U	0.58 U	0.47 U	0.45 U	0.44 U	0.44 U	0.44 U
4-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.9 U	2.8 U	2.3 U	2.2 U	2.1 U	2.2 U	2.1 U
4-Nitrophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.9 U	2.8 U	2.3 U	2.2 U	2.1 U	2.2 U	2.1 U
4-Nitroquinoline-1-oxide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.39 U	0.58 U	0.47 U	0.45 U	0.44 U	0.44 U	0.44 U
Acenaphthylene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.39 U	0.58 U	0.47 U	0.45 U	0.44 U	0.44 U	0.44 U
Acetophenone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.39 U	0.58 U	0.47 U	0.45 U	0.11 J	0.44 U	0.44 U
Aramite	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.061 J	0.58 U	0.47 U	0.45 U	0.55	0.44 U	0.44 U
Benzo(a)pyrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.043 J	0.58 U	0.47 U	0.45 U	0.69	0.44 U	0.44 U
Benzo(b)fluoranthene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.082 J	0.58 U	0.47 U	0.45 U	1.1	0.053 J	0.44 U
Benzo(g,h,i)perylene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.39 U	0.58 U	0.47 U	0.45 U	0.40 J	0.44 U	0.44 U
Benzo(k)fluoranthene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.39 U	0.58 U	0.47 U	0.45 U	0.37 J	0.44 U	0.44 U
Benzoic Acid	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.39 U	0.58 U	0.47 U	0.45 U	0.44 U	0.44 U	0.44 U
bis(2-Chloroethyl)ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.39 U	0.58 U	0.47 U	0.45 U	0.44 U	0.44 U	0.44 U
bis(2-Chloroisopropyl)ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.39 U	0.58 U	0.47 U	0.45 U	0.44 U	0.44 U	0.44 U
Butylbenzylphthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.39 U	0.58 U	0.47 U	0.45 U	0.44 U	0.44 U	0.44 U
Caprolactam	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.39 U	0.58 U	0.47 U	0.45 U	0.079 J	0.44 U	0.44 U
Chrysene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.13 J	0.58 U	0.47 U	0.45 U	0.76	0.44 U	0.44 U
Diallate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.39 U	0.58 U	0.47 U	0.45 U	0.11 J	0.44 U	0.44 U
Dibenzofuran	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.075 J	0.58 U	0.47 U	0.45 U	0.44 U	0.44 U	0.44 U
Diethylphthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.39 U	0.58 U	0.47 U	0.45 U	0.44 U	0.44 U	0.44 U
Dimethylphthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.39 U	0.58 U	0.47 U	0.45 U	0.44 U	0.44 U	0.44 U
Di-n-Butylphthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.39 U	0.58 U	0.47 U	0.45 U	0.44 U	0.44 U	0.44 U
Di-n-Octylphthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.39 U	0.58 U	0.47 U	0.45 U	0.44 U	0.44 U	0.44 U
Diphenylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		SB-384	SB-385	SB-385	SB-386	SB-386	SB-387	SB-387	SB-388	SB-388	SB-389	SB-390	SB-391	SB-392	SB-393	SB-394	SB-395
Sample Depth (ft bgs):		0.5 - 1	0 - 0.5	0.5 - 1	0 - 0.5	0.5 - 1	0 - 0.5	0.5 - 1	0 - 0.5	0.5 - 1	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5
Date Collected:	Units	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00
Semivolatile Organics (Cont'd.)																	
Ethyl Methacrylate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.13 J	0.58 U	0.47 U	0.064 J	1.5	0.059 J	0.44 U
Fluorene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.39 U	0.58 U	0.47 U	0.45 U	0.44 U	0.44 U	0.44 U
Hexachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.39 U	0.58 U	0.47 U	0.45 U	0.44 U	0.44 U	0.44 U
Hexachlorobutadiene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.39 U	0.58 U	0.47 U	0.45 U	0.44 U	0.44 U	0.44 U
Hexachlorocyclopentadiene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.9 U	2.8 U	2.3 U	2.2 U	2.1 U	2.2 U	2.1 U
Hexachloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.39 U	0.58 U	0.47 U	0.45 U	0.44 U	0.44 U	0.44 U
Hexachlorophene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloropropene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.39 U	0.58 U	0.47 U	0.45 U	0.42 J	0.44 U	0.44 U
Isophorone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.39 U	0.58 U	0.47 U	0.45 U	0.44 U	0.44 U	0.44 U
Isosafrole	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.27 J	0.58 U	0.47 U	0.45 U	0.44 U	0.44 U	0.44 U
Nitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.39 U	0.58 U	0.47 U	0.45 U	0.44 U	0.44 U	0.44 U
N-Nitrosodiethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.39 U	0.58 U	0.47 U	0.45 U	0.44 U	0.44 U	0.44 U
N-Nitrosodiphenylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.39 U	0.58 U	0.47 U	0.45 U	0.44 U	0.44 U	0.44 U
N-Nitrosomethylethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.39 U	0.58 U	0.47 U	0.45 U	0.44 U	0.44 U	0.44 U
Phenacetin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.41	0.58 U	0.47 U	0.45 U	0.55	0.44 U	0.44 U
Phenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.39 U	0.58 U	0.47 U	0.45 U	0.44 U	0.44 U	0.44 U
Pronamide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.12 J	0.58 U	0.47 U	0.45 U	1.2	0.44 U	0.44 U
Pyridine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.39 U	0.58 U	0.47 U	0.45 U	0.44 U	0.44 U	0.44 U
Semivolatile Organics-TCLP																	
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		SB-384	SB-385	SB-385	SB-386	SB-386	SB-387	SB-387	SB-388	SB-388	SB-389	SB-390	SB-391	SB-392	SB-393	SB-394	SB-395
Sample Depth (ft bgs):		0.5 - 1	0 - 0.5	0.5 - 1	0 - 0.5	0.5 - 1	0 - 0.5	0.5 - 1	0 - 0.5	0.5 - 1	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5
Date Collected:	Units	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00
Semivolatile Organics-TCLP (Cont'd.)																	
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs																	
Aroclor-1016	mg/kg	0.035 U	0.035 U	0.035 U	0.034 U	0.034 U	0.034 U	0.036 U	0.034 U	0.036 U	0.039 U	0.058 U	0.047 U	0.045 U	0.044 U	0.044 U	0.044 U
Aroclor-1221	mg/kg	0.035 U	0.035 U	0.035 U	0.034 U	0.034 U	0.034 U	0.036 U	0.034 U	0.036 U	0.039 U	0.058 U	0.047 U	0.045 U	0.044 U	0.044 U	0.044 U
Aroclor-1232	mg/kg	0.035 U	0.035 U	0.035 U	0.034 U	0.034 U	0.034 U	0.036 U	0.034 U	0.036 U	0.039 U	0.058 U	0.047 U	0.045 U	0.044 U	0.044 U	0.044 U
Aroclor-1242	mg/kg	0.035 U	0.035 U	0.035 U	0.034 U	0.034 U	0.034 U	0.036 U	0.034 U	0.036 U	0.039 U	0.058 U	0.047 U	0.045 U	0.044 U	0.044 U	0.044 U
Aroclor-1248	mg/kg	0.035 U	0.035 U	0.035 U	0.034 U	0.034 U	0.034 U	0.036 U	0.034 U	0.036 U	0.039 U	0.058 U	0.047 U	0.045 U	0.044 U	0.044 U	0.044 U
Aroclor-1254	mg/kg	0.57	0.059	0.035 U	0.046	0.043	0.23	0.11	0.096	0.045	0.16	0.058 U	0.047 U	0.045 U	0.069	0.044 U	0.044 U
Aroclor-1260	mg/kg	0.035 U	0.070	0.038	0.060	0.036	0.28	0.097	0.071	0.036 U	0.039 U	0.058 U	0.047 U	0.045 U	0.044 U	0.044 U	0.044 U
Total PCBs	mg/kg	0.57	0.13	0.038	0.11	0.079	0.51	0.21	0.17	0.045	0.16	0.058 U	0.047 U	0.045 U	0.069	0.044 U	0.044 U
Organochlorine Pesticides																	
3-Methylcholanthrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDD	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroquinoline-1-oxide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

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Sample Depth (ft bgs):		0.5 - 1	0 - 0.5	0.5 - 1	0 - 0.5	0.5 - 1	0 - 0.5	0.5 - 1	0 - 0.5	0.5 - 1	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5
Date Collected:	Units	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00
Organochlorine Pesticides-TCLP																	
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Technical Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides																	
2,4,5-T	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides-TCLP																	
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans																	
2,3,7,8-TCDD	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																	
Total Petroleum Hydrocarbons - extractable (DRO)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:	Units	SB-396	SB-397	SB-398	SB-399	SB-400	SB-406	SB-412	SB-418	SB-419	SB-420	SB-421	SB-422	SB-423	SB-424	TP1	TP1
Sample Depth (ft bgs):		0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.67	0 - 0.5	0 - 0.67	0 - 0.5	0 - 4	4 - 8
Date Collected:		08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/18/00	08/18/00	08/18/00	08/18/00	08/18/00	08/18/00	05/22/98	05/22/98
Semivolatile Organics																	
1,2,3,4-Tetrachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,5-Tetrachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4,5-Tetrachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	0.60 U	0.46 U	0.40 U	0.41 U	0.53 U	0.36 U	0.58 U	.43 U [0.46 U	NA	NA	NA	NA	NA	NA	0.33 U	0.33 U
1,2-Dichlorobenzene	mg/kg	0.60 U	0.46 U	0.40 U	0.41 U	0.53 U	0.36 U	0.58 U	.43 U [0.46 U	NA	NA	NA	NA	NA	NA	0.33 U	0.33 U
1,2-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	0.60 U	0.46 U	0.40 U	0.41 U	0.53 U	0.36 U	0.58 U	.43 U [0.46 U	NA	NA	NA	NA	NA	NA	0.33 U	0.33 U
1,3-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	0.60 U	0.46 U	0.40 U	0.41 U	0.53 U	0.36 U	0.58 U	.43 U [0.46 U	NA	NA	NA	NA	NA	NA	0.33 U	0.33 U
1,4-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	mg/kg	0.60 U	0.46 U	0.40 U	0.41 U	0.53 U	0.36 U	0.58 U	.43 U [0.46 U	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6-Tetrachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,5,6-Tetrachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	mg/kg	0.60 U	0.46 U	0.40 U	0.41 U	0.53 U	0.36 U	0.58 U	.43 U [0.46 U	NA	NA	NA	NA	NA	NA	0.33 U	0.33 U
2,4,6-Trichlorophenol	mg/kg	0.60 U	0.46 U	0.40 U	0.41 U	0.53 U	0.36 U	0.58 U	.43 U [0.46 U	NA	NA	NA	NA	NA	NA	0.33 U	0.33 U
2,4-Diaminotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	mg/kg	0.60 U	0.46 U	0.40 U	0.41 U	0.53 U	0.36 U	0.58 U	.43 U [0.46 U	NA	NA	NA	NA	NA	NA	0.33 U	0.33 U
2,4-Dimethylphenol	mg/kg	0.60 U	0.46 U	0.40 U	0.41 U	0.53 U	0.36 U	0.58 U	.43 U [0.46 U	NA	NA	NA	NA	NA	NA	0.33 U	0.33 U
2,4-Dinitrophenol	mg/kg	2.9 UJ	2.3 UJ	1.9 U	2.0 U	2.6 UJ	1.7 UJ	2.8 U	2.1 U [2.2 U]	NA	NA	NA	NA	NA	NA	1.6 U	1.6 U
2,4-Dinitrotoluene	mg/kg	0.60 U	0.46 U	0.40 U	0.41 U	0.53 U	0.36 U	0.58 U	.43 U [0.46 U	NA	NA	NA	NA	NA	NA	0.33 U	0.33 U
2,6-Dichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	mg/kg	0.60 U	0.46 U	0.40 U	0.41 U	0.53 U	0.36 U	0.58 U	.43 U [0.46 U	NA	NA	NA	NA	NA	NA	0.33 U	0.33 U
2-Acetylaminofluorene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	mg/kg	0.60 U	0.46 U	0.40 U	0.41 U	0.53 U	0.36 U	0.58 U	.43 U [0.46 U	NA	NA	NA	NA	NA	NA	0.33 U	0.33 U
2-Chlorophenol	mg/kg	0.60 U	0.46 U	0.40 U	0.41 U	0.53 U	0.36 U	0.58 U	.43 U [0.46 U	NA	NA	NA	NA	NA	NA	0.33 U	0.33 U
2-Methylnaphthalene	mg/kg	1.5	0.26 J	0.40 U	0.41 U	0.53 U	0.73	0.24 J	.43 U [0.46 U	NA	NA	NA	NA	NA	NA	0.85	1.1
2-Methylphenol	mg/kg	0.077 J	0.46 U	0.40 U	0.41 U	0.53 U	0.040 J	0.58 U	.43 U [0.46 U	NA	NA	NA	NA	NA	NA	0.33 U	0.33 U
2-Naphthylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	mg/kg	2.9 U	2.3 U	1.9 U	2.0 U	2.6 U	1.7 U	2.8 U	2.1 U [2.2 U]	NA	NA	NA	NA	NA	NA	1.6 U	1.6 U
2-Nitrophenol	mg/kg	0.60 U	0.46 U	0.40 U	0.41 U	0.53 U	0.36 U	0.58 U	.43 U [0.46 U	NA	NA	NA	NA	NA	NA	0.33 U	0.33 U
2-Picoline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	mg/kg	2.9 U	2.3 U	1.9 U	2.0 U	2.6 U	1.7 U	2.8 U	2.1 U [2.2 U]	NA	NA	NA	NA	NA	NA	1.6 U	1.6 U
3,3'-Dimethylbenzidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	mg/kg	2.9 U	2.3 U	1.9 U	2.0 U	2.6 U	1.7 U	2.8 U	2.1 U [2.2 U]	NA	NA	NA	NA	NA	NA	1.6 U	1.6 U
4,4'-Methylene-bis(2-chloroaniline)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	mg/kg	2.9 U	2.3 U	1.9 U	2.0 U	2.6 U	1.7 U	2.8 U	2.1 U [2.2 U]	NA	NA	NA	NA	NA	NA	1.6 U	1.6 U
4-Aminobiphenyl	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		SB-396	SB-397	SB-398	SB-399	SB-400	SB-406	SB-412	SB-418	SB-419	SB-420	SB-421	SB-422	SB-423	SB-424	TP1	TP1
Sample Depth (ft bgs):		0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.67	0 - 0.5	0 - 0.67	0 - 0.5	0 - 4	4 - 8
Date Collected:	Units	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/18/00	08/18/00	08/18/00	08/18/00	08/18/00	08/18/00	05/22/98	05/22/98
Semivolatile Organics (Cont'd.)																	
4-Bromophenyl-phenylether	mg/kg	0.60 U	0.46 U	0.40 U	0.41 U	0.53 U	0.36 U	0.58 U	.43 U [0.46 U	NA	NA	NA	NA	NA	NA	0.33 U	0.33 U
4-Chloro-3-Methylphenol	mg/kg	0.60 U	0.46 U	0.40 U	0.41 U	0.53 U	0.36 U	0.58 U	.43 U [0.46 U	NA	NA	NA	NA	NA	NA	0.33 U	0.33 U
4-Chloroaniline	mg/kg	0.60 U	0.46 U	0.40 U	0.41 U	0.53 U	0.36 U	0.58 U	.43 U [0.46 U	NA	NA	NA	NA	NA	NA	0.33 U	0.33 U
4-Chlorobenzilate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	mg/kg	0.60 U	0.46 U	0.40 U	0.41 U	0.53 U	0.36 U	0.58 U	.43 U [0.46 U	NA	NA	NA	NA	NA	NA	0.33 U	0.33 U
4-Methylphenol	mg/kg	0.60 U	0.46 U	0.40 U	0.41 U	0.53 U	0.36 U	0.58 U	.43 U [0.46 U	NA	NA	NA	NA	NA	NA	0.33 U	0.33 U
4-Nitroaniline	mg/kg	2.9 U	2.3 U	1.9 U	2.0 U	2.6 U	1.7 U	2.8 U	2.1 U [2.2 U]	NA	NA	NA	NA	NA	NA	1.6 U	1.6 U
4-Nitrophenol	mg/kg	2.9 U	2.3 U	1.9 U	2.0 U	2.6 U	1.7 U	2.8 U	2.1 U [2.2 U]	NA	NA	NA	NA	NA	NA	1.6 U	1.6 U
4-Nitroquinoline-1-oxide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/kg	0.60 U	0.46 U	0.40 U	0.41 U	0.53 U	0.36 U	0.58 U	.43 U [0.46 U	NA	NA	NA	NA	NA	NA	0.33 U	0.33 U
Acenaphthylene	mg/kg	0.60 U	0.46 U	0.40 U	0.41 U	0.53 U	0.36 U	0.58 U	.43 U [0.46 U	NA	NA	NA	NA	NA	NA	0.33 U	0.33 U
Acetophenone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/kg	0.60 U	0.46 U	0.40 U	0.41 U	0.53 U	0.36 U	0.58 U	.43 U [0.46 U	NA	NA	NA	NA	NA	NA	0.33 U	0.33 U
Aramite	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/kg	0.079 J	0.46 U	0.096 J	0.41 U	0.53 U	0.040 J	0.58 U	.43 U [0.46 U	NA	NA	NA	NA	NA	NA	0.33 U	0.33 U
Benzo(a)pyrene	mg/kg	0.60 U	0.46 U	0.13 J	0.049 J	0.53 U	0.36 U	0.58 U	.43 U [0.46 U	NA	NA	NA	NA	NA	NA	0.33 U	0.33 U
Benzo(b)fluoranthene	mg/kg	0.099 J	0.46 U	0.17 J	0.066 J	0.53 U	0.047 J	0.58 U	.43 U [0.46 U	NA	NA	NA	NA	NA	NA	0.33 U	0.33 U
Benzo(g,h,i)perylene	mg/kg	0.60 U	0.46 U	0.079 J	0.41 U	0.53 U	0.36 U	0.58 U	.43 U [0.46 U	NA	NA	NA	NA	NA	NA	0.33 U	0.33 U
Benzo(k)fluoranthene	mg/kg	0.60 U	0.46 U	0.064 J	0.41 U	0.53 U	0.36 U	0.58 U	.43 U [0.46 U	NA	NA	NA	NA	NA	NA	0.33 U	0.33 U
Benzoic Acid	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	mg/kg	0.60 U	0.46 U	0.40 U	0.41 U	0.53 U	0.36 U	0.58 U	.43 U [0.46 U	NA	NA	NA	NA	NA	NA	0.33 U	0.33 U
bis(2-Chloroethyl)ether	mg/kg	0.60 U	0.46 U	0.40 U	0.41 U	0.53 U	0.36 U	0.58 U	.43 U [0.46 U	NA	NA	NA	NA	NA	NA	0.33 U	0.33 U
bis(2-Chloroisopropyl)ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.33 U	0.33 U
bis(2-Ethylhexyl)phthalate	mg/kg	0.16 J	0.46 U	0.40 U	0.41 U	0.53 U	0.36 U	0.58 U	.43 U [0.46 U	NA	NA	NA	NA	NA	NA	0.33 U	0.33 U
Butylbenzylphthalate	mg/kg	0.60 U	0.46 U	0.40 U	0.41 U	0.53 U	0.36 U	0.58 U	.43 U [0.46 U	NA	NA	NA	NA	NA	NA	0.33 U	0.33 U
Caprolactam	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	mg/kg	0.22 J	0.46 U	0.40 U	0.41 U	0.53 U	0.36 U	0.58 U	.43 U [0.46 U	NA	NA	NA	NA	NA	NA	0.33 U	0.33 U
Chrysene	mg/kg	0.12 J	0.46 U	0.11 J	0.41 U	0.53 U	0.063 J	0.58 U	.43 U [0.46 U	NA	NA	NA	NA	NA	NA	0.33 U	0.33 U
Diallate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	mg/kg	0.60 U	0.46 U	0.40 U	0.41 U	0.53 U	0.36 U	0.58 U	.43 U [0.46 U	NA	NA	NA	NA	NA	NA	0.33 U	0.33 U
Dibenzofuran	mg/kg	0.23 J	0.061 J	0.40 U	0.41 U	0.53 U	0.13 J	0.58 U	.43 U [0.46 U	NA	NA	NA	NA	NA	NA	0.33 U	0.33 U
Diethylphthalate	mg/kg	0.60 U	0.46 U	0.40 U	0.70 U	0.53 U	0.36 U	0.58 U	.43 U [0.46 U	NA	NA	NA	NA	NA	NA	0.33 U	0.33 U
Dimethylphthalate	mg/kg	0.60 U	0.46 U	0.40 U	0.41 U	0.53 U	0.36 U	0.58 U	.43 U [0.46 U	NA	NA	NA	NA	NA	NA	0.33 U	0.33 U
Di-n-Butylphthalate	mg/kg	0.60 U	0.46 U	0.40 U	0.41 U	0.53 U	0.36 U	0.58 U	.43 U [0.46 U	NA	NA	NA	NA	NA	NA	0.33 U	0.33 U
Di-n-Octylphthalate	mg/kg	0.60 U	0.46 U	0.40 U	0.41 U	0.53 U	0.36 U	0.58 U	.43 U [0.46 U	NA	NA	NA	NA	NA	NA	0.33 U	0.33 U
Diphenylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

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Sample Depth (ft bgs):		0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.67	0 - 0.5	0 - 0.67	0 - 0.5	0 - 4	4 - 8
Date Collected:	Units	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/18/00	08/18/00	08/18/00	08/18/00	08/18/00	08/18/00	05/22/98	05/22/98
Semivolatile Organics (Cont'd.)																	
Ethyl Methacrylate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	mg/kg	0.16 J	0.46 U	0.18 J	0.085 J	0.53 U	0.085 J	0.58 U	.43 U [0.46 U	NA	NA	NA	NA	NA	NA	0.33 U	0.33 U
Fluorene	mg/kg	0.074 J	0.46 U	0.40 U	0.41 U	0.53 U	0.36 U	0.58 U	.43 U [0.46 U	NA	NA	NA	NA	NA	NA	0.33 U	0.33 U
Hexachlorobenzene	mg/kg	0.60 U	0.46 U	0.40 U	0.41 U	0.53 U	0.36 U	0.58 U	.43 U [0.46 U	NA	NA	NA	NA	NA	NA	0.33 U	0.33 U
Hexachlorobutadiene	mg/kg	0.60 U	0.46 U	0.40 U	0.41 U	0.53 U	0.36 U	0.58 U	.43 U [0.46 U	NA	NA	NA	NA	NA	NA	0.33 U	0.33 U
Hexachlorocyclopentadiene	mg/kg	2.9 U	2.3 U	1.9 U	2.0 U	2.6 U	1.7 U	2.8 U	2.1 U [2.2 U]	NA	NA	NA	NA	NA	NA	1.6 U	1.6 U
Hexachloroethane	mg/kg	0.60 U	0.46 U	0.40 U	0.41 U	0.53 U	0.36 U	0.58 U	.43 U [0.46 U	NA	NA	NA	NA	NA	NA	0.33 U	0.33 U
Hexachlorophene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloropropene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	mg/kg	0.60 U	0.46 U	0.081 J	0.41 U	0.53 U	0.36 U	0.58 U	.43 U [0.46 U	NA	NA	NA	NA	NA	NA	0.33 U	0.33 U
Isophorone	mg/kg	0.60 U	0.46 U	0.40 U	0.41 U	0.53 U	0.36 U	0.58 U	.43 U [0.46 U	NA	NA	NA	NA	NA	NA	0.33 U	0.33 U
Isosafrole	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/kg	0.88	0.19 J	0.40 U	0.41 U	0.53 U	0.47	0.16 J	.43 U [0.46 U	NA	NA	NA	NA	NA	NA	0.69	0.87
Nitrobenzene	mg/kg	0.60 U	0.46 U	0.40 U	0.41 U	0.53 U	0.36 U	0.58 U	.43 U [0.46 U	NA	NA	NA	NA	NA	NA	0.33 U	0.33 U
N-Nitrosodiethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	mg/kg	0.60 U	0.46 U	0.40 U	0.41 U	0.53 U	0.36 U	0.58 U	.43 U [0.46 U	NA	NA	NA	NA	NA	NA	0.33 U	0.33 U
N-Nitrosodiphenylamine	mg/kg	0.60 U	0.46 U	0.40 U	0.41 U	0.53 U	0.36 U	0.58 U	.43 U [0.46 U	NA	NA	NA	NA	NA	NA	0.33 U	0.33 U
N-Nitrosomethylethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	mg/kg	0.60 U	0.46 U	0.40 U	0.41 U	0.53 U	0.36 U	0.58 U	.43 U [0.46 U	NA	NA	NA	NA	NA	NA	0.33 U	0.33 U
Phenacetin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	mg/kg	0.64	0.19 J	0.093 J	0.41 U	0.53 U	0.36	0.12 J	.43 U [0.46 U	NA	NA	NA	NA	NA	NA	0.47	0.63
Phenol	mg/kg	1.6	0.46 U	0.40 U	0.41 U	0.53 U	0.14 J	0.58 U	.43 U [0.46 U	NA	NA	NA	NA	NA	NA	0.33 U	0.33 U
Pronamide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	mg/kg	0.15 J	0.46 U	0.14 J	0.41 U	0.53 U	0.079 J	0.58 U	.43 U [0.46 U	NA	NA	NA	NA	NA	NA	0.33 U	0.33 U
Pyridine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	mg/kg	0.077 J	0.46 U	0.40 U	0.41 U	0.53 U	0.040 J	0.58 U	.43 U [0.46 U	NA	NA	NA	NA	NA	NA	0.33 U	0.33 U
Semivolatile Organics-TCLP																	
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		SB-396	SB-397	SB-398	SB-399	SB-400	SB-406	SB-412	SB-418	SB-419	SB-420	SB-421	SB-422	SB-423	SB-424	TP1	TP1
Sample Depth (ft bgs):		0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.67	0 - 0.5	0 - 0.67	0 - 0.5	0 - 4	4 - 8
Date Collected:	Units	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/18/00	08/18/00	08/18/00	08/18/00	08/18/00	08/18/00	05/22/98	05/22/98
Semivolatile Organics-TCLP (Cont'd.)																	
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs																	
Aroclor-1016	mg/kg	0.060 U	0.046 U	0.040 U	0.041 U	0.053 U	0.036 U	0.058 U	043 U [0.046	0.68 U	0.44 U	0.72 U	0.41 U	.3 U [0.87 U	0.41 U	0.017 U	0.017 U
Aroclor-1221	mg/kg	0.060 U	0.046 U	0.040 U	0.041 U	0.053 U	0.036 U	0.058 U	043 U [0.046	0.68 U	0.44 U	0.72 U	0.41 U	.3 U [0.87 U	0.41 U	0.017 U	0.017 U
Aroclor-1232	mg/kg	0.060 U	0.046 U	0.040 U	0.041 U	0.053 U	0.036 U	0.058 U	043 U [0.046	0.68 U	0.44 U	0.72 U	0.41 U	.3 U [0.87 U	0.41 U	0.017 U	0.017 U
Aroclor-1242	mg/kg	0.060 U	0.046 U	0.040 U	0.041 U	0.053 U	0.036 U	0.058 U	043 U [0.046	0.68 U	0.44 U	0.72 U	0.41 U	.3 U [0.87 U	0.41 U	0.017 U	0.017 U
Aroclor-1248	mg/kg	0.060 U	0.046 U	0.040 U	0.041 U	0.053 U	0.036 U	0.058 U	043 U [0.046	0.11 J	0.064 J	0.16 J	0.41 U	.3 U [0.87 U	0.41 U	0.017 U	0.017 U
Aroclor-1254	mg/kg	0.038 J	0.030 J	0.040 U	0.046	0.053 U	0.028 J	0.058 U	043 U [0.046	0.68 U	0.44 U	0.72 U	0.41 U	.3 U [0.87 U	0.41 U	0.13	0.23
Aroclor-1260	mg/kg	0.060 U	0.046 U	0.040 U	0.041 U	0.053 U	0.036 U	0.058 U	043 U [0.046	0.14 J	0.10 J	0.40 J	0.044 J	1.1 J [0.57 J	0.042 J	0.033 U	0.033 U
Total PCBs	mg/kg	0.038 J	0.030 J	0.040 U	0.046	0.053 U	0.028 J	0.058 U	043 U [0.046	0.25 J	0.16 J	0.56 J	0.044 J	1.1 J [0.57 J	0.042 J	0.13	0.23
Organochlorine Pesticides																	
3-Methylcholanthrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDD	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroquinoline-1-oxide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		SB-396	SB-397	SB-398	SB-399	SB-400	SB-406	SB-412	SB-418	SB-419	SB-420	SB-421	SB-422	SB-423	SB-424	TP1	TP1
Sample Depth (ft bgs):		0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.67	0 - 0.5	0 - 0.67	0 - 0.5	0 - 4	4 - 8
Date Collected:	Units	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/18/00	08/18/00	08/18/00	08/18/00	08/18/00	08/18/00	05/22/98	05/22/98
Organochlorine Pesticides-TCLP																	
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Technical Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides																	
2,4,5-T	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides-TCLP																	
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans																	
2,3,7,8-TCDD	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																	
Total Petroleum Hydrocarbons - extractable (DRO)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		TP2	TP2	TP-2	TP3	TP3	TP4	TP4	TP5	TP5	TP6	TP6	TP-6	TP7	TP-12	UP-B1	UP-B2
Sample Depth (ft bgs):		0 - 4	4 - 8	8 - 8.5	0 - 4	4 - 8	0 - 4	4 - 8	0 - 4	4 - 8	0 - 4	4 - 8	8 - 8.5	0 - 4	7.8 - 8	1	1
Date Collected:	Units	05/22/98	05/22/98	03/23/95	05/22/98	05/22/98	05/22/98	05/22/98	05/22/98	05/22/98	05/22/98	05/22/98	03/22/95	05/22/98	03/23/95	07/14/98	07/14/98
Semivolatile Organics																	
1,2,3,4-Tetrachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,5-Tetrachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4,5-Tetrachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	0.33 U	0.33 U	84 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	4.1 U	0.33 U	24 U	NA	NA
1,2-Dichlorobenzene	mg/kg	0.33 U	0.33 U	NA	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	NA	0.33 U	NA	NA	NA
1,2-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	0.33 U	0.33 U	NA	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	NA	0.33 U	NA	NA	NA
1,3-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	0.33 U	0.33 U	NA	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	NA	0.33 U	NA	NA	NA
1,4-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	mg/kg	NA	NA	84 U	NA	NA	NA	NA	NA	NA	NA	NA	4.1 U	NA	24 U	NA	NA
2,3,4,6-Tetrachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,5,6-Tetrachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	mg/kg	0.33 U	0.33 U	84 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	4.1 U	0.33 U	24 U	NA	NA
2,4,6-Trichlorophenol	mg/kg	0.33 U	0.33 U	84 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	4.1 U	0.33 U	24 U	NA	NA
2,4-Diaminotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	mg/kg	0.33 U	0.33 U	84 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	4.1 U	0.33 U	24 U	NA	NA
2,4-Dimethylphenol	mg/kg	0.33 U	0.33 U	84 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	4.1 U	0.33 U	24 U	NA	NA
2,4-Dinitrophenol	mg/kg	1.6 U	1.6 U	410 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	20 U	1.6 U	110 U	NA	NA
2,4-Dinitrotoluene	mg/kg	0.33 U	0.33 U	84 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	4.1 U	0.33 U	24 U	NA	NA
2,6-Dichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	mg/kg	0.33 U	0.33 U	84 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	4.1 U	0.33 U	24 U	NA	NA
2-Acetylaminofluorene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	mg/kg	0.33 U	0.33 U	84 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	4.1 U	0.33 U	24 U	NA	NA
2-Chlorophenol	mg/kg	0.33 U	0.33 U	84 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	4.1 U	0.33 U	24 U	NA	NA
2-Methylnaphthalene	mg/kg	1.0	1.2	9.4 J	0.67	1.1	0.80	1.5	0.71	1.1	1.6	1.6	3.7 J	0.58	8.0 J	NA	NA
2-Methylphenol	mg/kg	0.33 U	0.33 U	84 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	4.1 U	0.33 U	24 U	NA	NA
2-Naphthylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	mg/kg	1.6 U	1.6 U	410 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	20 U	1.6 U	110 U	NA	NA
2-Nitrophenol	mg/kg	0.33 U	0.33 U	84 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	4.1 U	0.33 U	24 U	NA	NA
2-Picoline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	mg/kg	1.6 U	1.6 U	170 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	8.1 U	1.6 U	47 U	NA	NA
3,3'-Dimethylbenzidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	mg/kg	1.6 U	1.6 U	410 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	20 U	1.6 U	110 U	NA	NA
4,4'-Methylene-bis(2-chloroaniline)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	mg/kg	1.6 U	1.6 U	410 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	20 U	1.6 U	110 U	NA	NA
4-Aminobiphenyl	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		TP2	TP2	TP-2	TP3	TP3	TP4	TP4	TP5	TP5	TP6	TP6	TP-6	TP7	TP-12	UP-B1	UP-B2
Sample Depth (ft bgs):		0 - 4	4 - 8	8 - 8.5	0 - 4	4 - 8	0 - 4	4 - 8	0 - 4	4 - 8	0 - 4	4 - 8	8 - 8.5	0 - 4	7.8 - 8	1	1
Date Collected:	Units	05/22/98	05/22/98	03/23/95	05/22/98	05/22/98	05/22/98	05/22/98	05/22/98	05/22/98	05/22/98	05/22/98	03/22/95	05/22/98	03/23/95	07/14/98	07/14/98
Semivolatile Organics (Cont'd.)																	
4-Bromophenyl-phenylether	mg/kg	0.33 U	0.33 U	84 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	4.1 U	0.33 U	24 U	NA	NA
4-Chloro-3-Methylphenol	mg/kg	0.33 U	0.33 U	84 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	4.1 U	0.33 U	24 U	NA	NA
4-Chloroaniline	mg/kg	0.33 U	0.33 U	84 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	4.1 U	0.33 U	24 U	NA	NA
4-Chlorobenzilate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	mg/kg	0.33 U	0.33 U	84 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	4.1 U	0.33 U	24 U	NA	NA
4-Methylphenol	mg/kg	0.33 U	0.33 U	84 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	4.1 U	0.33 U	24 U	NA	NA
4-Nitroaniline	mg/kg	1.6 U	1.6 U	410 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	20 U	1.6 U	110 U	NA	NA
4-Nitrophenol	mg/kg	1.6 U	1.6 U	410 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	20 U	1.6 U	110 U	NA	NA
4-Nitroquinoline-1-oxide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/kg	0.33 U	0.33 U	57 J	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.51 J	0.33 U	3.7 J	NA	NA
Acenaphthylene	mg/kg	0.33 U	0.33 U	84 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	4.1 U	0.33 U	24 U	NA	NA
Acetophenone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/kg	0.33 U	0.33 U	190	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.74 J	0.33 U	5.8 J	NA	NA
Aramite	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/kg	0.33 U	0.33 U	630	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	1.7 J	0.33 U	19 J	NA	NA
Benzo(a)pyrene	mg/kg	0.33 U	0.33 U	600	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	1.4 J	0.33 U	17 J	NA	NA
Benzo(b)fluoranthene	mg/kg	0.33 U	0.33 U	680	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	2.2 J	0.33 U	20 J	NA	NA
Benzo(g,h,i)perylene	mg/kg	0.33 U	0.33 U	360	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.95 J	0.33 U	11 J	NA	NA
Benzo(k)fluoranthene	mg/kg	0.33 U	0.33 U	230	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.75 J	0.33 U	6.2 J	NA	NA
Benzoic Acid	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	mg/kg	0.33 U	0.33 U	84 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	4.1 U	0.33 U	24 U	NA	NA
bis(2-Chloroethyl)ether	mg/kg	0.33 U	0.33 U	84 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	4.1 U	0.33 U	24 U	NA	NA
bis(2-Chloroisopropyl)ether	mg/kg	0.33 U	0.33 U	NA	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	NA	0.33 U	NA	NA	NA
bis(2-Ethylhexyl)phthalate	mg/kg	0.33 U	0.33 U	84 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	7.4	0.33 U	11 J	NA	NA
Butylbenzylphthalate	mg/kg	0.33 U	0.33 U	84 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	4.1 U	0.33 U	24 U	NA	NA
Caprolactam	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	mg/kg	0.33 U	0.33 U	97	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	4.1 U	0.33 U	3.2 J	NA	NA
Chrysene	mg/kg	0.33 U	0.33 U	620	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	2.2 J	0.33 U	27	NA	NA
Diallate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	mg/kg	0.33 U	0.33 U	87	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	4.1 U	0.33 U	24 U	NA	NA
Dibenzofuran	mg/kg	0.33 U	0.33 U	42 J	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.56 J	0.33 U	3.1 J	NA	NA
Diethylphthalate	mg/kg	0.33 U	0.33 U	84 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	4.1 U	0.33 U	24 U	NA	NA
Dimethylphthalate	mg/kg	0.33 U	0.33 U	84 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	4.1 U	0.33 U	24 U	NA	NA
Di-n-Butylphthalate	mg/kg	0.33 U	0.33 U	84 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	3.4 J	0.33 U	4.6 J	NA	NA
Di-n-Octylphthalate	mg/kg	0.33 U	0.33 U	84 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	4.1 U	0.33 U	24 U	NA	NA
Diphenylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		TP2	TP2	TP-2	TP3	TP3	TP4	TP4	TP5	TP5	TP6	TP6	TP-6	TP7	TP-12	UP-B1	UP-B2
Sample Depth (ft bgs):		0 - 4	4 - 8	8 - 8.5	0 - 4	4 - 8	0 - 4	4 - 8	0 - 4	4 - 8	0 - 4	4 - 8	8 - 8.5	0 - 4	7.8 - 8	1	1
Date Collected:	Units	05/22/98	05/22/98	03/23/95	05/22/98	05/22/98	05/22/98	05/22/98	05/22/98	05/22/98	05/22/98	05/22/98	03/22/95	05/22/98	03/23/95	07/14/98	07/14/98
Semivolatile Organics (Cont'd.)																	
Ethyl Methacrylate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	mg/kg	0.33 U	0.33 U	1,000	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	4.1	0.33 U	44	NA	NA
Fluorene	mg/kg	0.33 U	0.33 U	43 J	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	1.2 J	0.33 U	5.1 J	NA	NA
Hexachlorobenzene	mg/kg	0.33 U	0.33 U	84 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	4.1 U	0.33 U	24 U	NA	NA
Hexachlorobutadiene	mg/kg	0.33 U	0.33 U	84 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	4.1 U	0.33 U	24 U	NA	NA
Hexachlorocyclopentadiene	mg/kg	1.6 U	1.6 U	84 UJ	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	4.1 UJ	1.6 U	24 U	NA	NA
Hexachloroethane	mg/kg	0.33 U	0.33 U	84 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	4.1 U	0.33 U	24 U	NA	NA
Hexachlorophene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloropropene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	mg/kg	0.33 U	0.33 U	330	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.88 J	0.33 U	8.9 J	NA	NA
Isophorone	mg/kg	0.33 U	0.33 U	84 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	4.1 U	0.33 U	24 U	NA	NA
Isosafrole	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/kg	0.70	0.76	38 J	0.47	0.88	0.47	0.92	0.50	0.66	1.1	1.1	19	0.37	12 J	NA	NA
Nitrobenzene	mg/kg	0.33 U	0.33 U	84 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	4.1 U	0.33 U	24 U	NA	NA
N-Nitrosodiethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	mg/kg	0.33 U	0.33 U	84 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	4.1 U	0.33 U	24 U	NA	NA
N-Nitrosodiphenylamine	mg/kg	0.33 U	0.33 U	84 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	4.1 U	0.33 U	24 U	NA	NA
N-Nitrosomethylethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	mg/kg	0.33 U	0.33 U	410 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	20 U	0.33 U	110 U	NA	NA
Phenacetin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	mg/kg	0.53	0.49	630	0.35	0.53	0.33	0.57	0.46	0.45	0.69	0.73	3.6 J	0.33 U	35	NA	NA
Phenol	mg/kg	0.33 U	0.33 U	84 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	4.1 U	0.33 U	24 U	NA	NA
Pronamide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	mg/kg	0.33 U	0.33 U	840	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	2.7 J	0.33 U	38	NA	NA
Pyridine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	mg/kg	0.33 U	0.33 U	84 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	4.1 U	0.33 U	24 U	NA	NA
Semivolatile Organics-TCLP																	
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		TP2	TP2	TP-2	TP3	TP3	TP4	TP4	TP5	TP5	TP6	TP6	TP-6	TP7	TP-12	UP-B1	UP-B2
Sample Depth (ft bgs):		0 - 4	4 - 8	8 - 8.5	0 - 4	4 - 8	0 - 4	4 - 8	0 - 4	4 - 8	0 - 4	4 - 8	8 - 8.5	0 - 4	7.8 - 8	1	1
Date Collected:	Units	05/22/98	05/22/98	03/23/95	05/22/98	05/22/98	05/22/98	05/22/98	05/22/98	05/22/98	05/22/98	05/22/98	03/22/95	05/22/98	03/23/95	07/14/98	07/14/98
Semivolatile Organics-TCLP (Cont'd.)																	
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs																	
Aroclor-1016	mg/kg	0.017 U	0.017 U	2.1 U	0.017 U	0.017 U	0.017 U	0.017 U	0.017 U	0.017 U	0.017 U	0.017 U	2.1 U	0.017 U	3.9 U	0.33 U	0.33 U
Aroclor-1221	mg/kg	0.017 U	0.017 U	2.1 U	0.017 U	0.017 U	0.017 U	0.017 U	0.017 U	0.017 U	0.017 U	0.017 U	2.1 U	0.017 U	3.9 U	0.33 U	0.33 U
Aroclor-1232	mg/kg	0.017 U	0.017 U	2.1 U	0.017 U	0.017 U	0.017 U	0.017 U	0.017 U	0.017 U	0.017 U	0.017 U	2.1 U	0.017 U	3.9 U	0.33 U	0.33 U
Aroclor-1242	mg/kg	0.017 U	0.017 U	2.1 U	0.017 U	0.017 U	0.017 U	0.017 U	0.017 U	0.017 U	0.017 U	0.017 U	2.1 U	0.017 U	3.9 U	0.33 U	0.33 U
Aroclor-1248	mg/kg	0.017 U	0.017 U	2.1 U	0.017 U	0.017 U	0.017 U	0.017 U	0.017 U	0.017 U	0.017 U	0.017 U	7.9	0.017 U	21	0.33 U	0.33 U
Aroclor-1254	mg/kg	0.033 U	0.059	4.2 U	0.14	0.12	0.053	0.054	0.049	0.18	0.033 U	0.033 U	4.1 U	0.033 U	7.9 U	1.4	0.43
Aroclor-1260	mg/kg	0.039	0.033 U	4.2 U	0.033 U	0.033 U	0.033 U	0.033 U	0.033 U	0.033 U	0.073	0.053	4.1 U	0.10	7.9 U	0.33 U	0.33 U
Total PCBs	mg/kg	0.039	0.059	4.2 U	0.14	0.12	0.053	0.054	0.049	0.18	0.073	0.053	7.9	0.10	21	1.4	0.43
Organochlorine Pesticides																	
3-Methylcholanthrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDD	mg/kg	NA	NA	0.42 U	NA	NA	NA	NA	NA	NA	NA	NA	0.41 U	NA	0.79 U	NA	NA
4,4'-DDE	mg/kg	NA	NA	0.42 U	NA	NA	NA	NA	NA	NA	NA	NA	0.41 U	NA	0.79 U	NA	NA
4,4'-DDT	mg/kg	NA	NA	0.42 U	NA	NA	NA	NA	NA	NA	NA	NA	0.41 U	NA	0.79 U	NA	NA
4-Nitroquinoline-1-oxide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	mg/kg	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA	0.21 U	NA	0.39 U	NA	NA
Alpha-BHC	mg/kg	NA	NA	0.21 UJ	NA	NA	NA	NA	NA	NA	NA	NA	0.21 UJ	NA	0.39 UJ	NA	NA
Alpha-Chlordane	mg/kg	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA	0.21 U	NA	0.39 U	NA	NA
Benzo(a)anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	mg/kg	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA	0.21 U	NA	0.39 U	NA	NA
Delta-BHC	mg/kg	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA	0.21 U	NA	0.39 U	NA	NA
Dieldrin	mg/kg	NA	NA	0.42 U	NA	NA	NA	NA	NA	NA	NA	NA	0.41 U	NA	0.79 U	NA	NA
Endosulfan I	mg/kg	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA	0.21 U	NA	0.39 U	NA	NA
Endosulfan II	mg/kg	NA	NA	0.42 UJ	NA	NA	NA	NA	NA	NA	NA	NA	0.41 UJ	NA	0.79 UJ	NA	NA
Endosulfan Sulfate	mg/kg	NA	NA	0.42 U	NA	NA	NA	NA	NA	NA	NA	NA	0.41 U	NA	0.79 U	NA	NA
Endrin	mg/kg	NA	NA	0.42 U	NA	NA	NA	NA	NA	NA	NA	NA	0.41 U	NA	0.79 U	NA	NA
Endrin Aldehyde	mg/kg	NA	NA	0.42 UJ	NA	NA	NA	NA	NA	NA	NA	NA	0.41 UJ	NA	0.79 UJ	NA	NA
Endrin Ketone	mg/kg	NA	NA	0.42 UJ	NA	NA	NA	NA	NA	NA	NA	NA	0.41 UJ	NA	0.79 UJ	NA	NA
Gamma-BHC (Lindane)	mg/kg	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA	0.21 U	NA	0.39 U	NA	NA
Gamma-Chlordane	mg/kg	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA	0.21 U	NA	0.39 U	NA	NA
Heptachlor	mg/kg	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA	0.21 U	NA	0.39 U	NA	NA
Heptachlor Epoxide	mg/kg	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA	0.21 U	NA	0.39 U	NA	NA
Isodrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	mg/kg	NA	NA	2.1 U	NA	NA	NA	NA	NA	NA	NA	NA	2.1 U	NA	3.9 U	NA	NA
Toxaphene	mg/kg	NA	NA	10 U	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA	20 U	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		TP2	TP2	TP-2	TP3	TP3	TP4	TP4	TP5	TP5	TP6	TP6	TP-6	TP7	TP-12	UP-B1	UP-B2
Sample Depth (ft bgs):		0 - 4	4 - 8	8 - 8.5	0 - 4	4 - 8	0 - 4	4 - 8	0 - 4	4 - 8	0 - 4	4 - 8	8 - 8.5	0 - 4	7.8 - 8	1	1
Date Collected:	Units	05/22/98	05/22/98	03/23/95	05/22/98	05/22/98	05/22/98	05/22/98	05/22/98	05/22/98	05/22/98	05/22/98	03/22/95	05/22/98	03/23/95	07/14/98	07/14/98
Organochlorine Pesticides-TCLP																	
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Technical Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides																	
2,4,5-T	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides-TCLP																	
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans																	
2,3,7,8-TCDD	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																	
Total Petroleum Hydrocarbons - extractable (DRO)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:	Units	UP-S1	UP-S2	UP-S3	US-1	US-2	US-3	US-4	US-5	US-5-1	US-5-2	US-5-3	US-5-4	US-5-5	US-5-6	US-5-7	US-5-8
Sample Depth (ft bgs):		0.5	0.5	0.5	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1
Date Collected:		07/14/98	07/14/98	07/14/98	06/12/95	06/12/95	06/12/95	06/12/95	06/12/95	06/10/96	06/10/96	06/10/96	06/10/96	06/10/96	06/10/96	06/10/96	06/10/96
Semivolatile Organics																	
1,2,3,4-Tetrachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,5-Tetrachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4,5-Tetrachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	NA	NA	NA	0.83 U	0.44 U	0.17 U	0.17 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	mg/kg	NA	NA	NA	0.83 U	0.44 U	0.17 U	0.17 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6-Tetrachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,5,6-Tetrachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	mg/kg	NA	NA	NA	R	R	R	0.17 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	mg/kg	NA	NA	NA	R	R	R	0.17 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Diaminotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	mg/kg	NA	NA	NA	R	0.44 U	R	0.17 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	mg/kg	NA	NA	NA	R	R	R	0.17 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	mg/kg	NA	NA	NA	R	R	R	0.84 U	0.83 U	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	mg/kg	NA	NA	NA	0.83 U	0.44 U	0.17 U	0.17 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	mg/kg	NA	NA	NA	0.83 U	0.44 U	0.17 U	0.17 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA
2-Acetylaminofluorene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	mg/kg	NA	NA	NA	0.83 U	0.44 U	0.17 U	0.17 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	mg/kg	NA	NA	NA	R	R	R	0.17 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	mg/kg	NA	NA	NA	0.12 J	0.082 J	0.16 J	0.10 J	0.18	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	mg/kg	NA	NA	NA	R	R	R	0.17 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA
2-Naphthylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	mg/kg	NA	NA	NA	4.0 U	2.2 U	0.84 U	0.84 U	0.83 U	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	mg/kg	NA	NA	NA	R	R	R	0.17 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA
2-Picoline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	mg/kg	NA	NA	NA	1.7 U	0.89 U	0.35 U	0.35 U	0.34 U	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dimethylbenzidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	mg/kg	NA	NA	NA	4.0 U	2.2 U	0.84 U	0.84 U	0.83 U	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-Methylene-bis(2-chloroaniline)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	mg/kg	NA	NA	NA	R	R	R	0.84 UJ	0.83 U	NA	NA	NA	NA	NA	NA	NA	NA
4-Aminobiphenyl	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:	Units	UP-S1	UP-S2	UP-S3	US-1	US-2	US-3	US-4	US-5	US-5-1	US-5-2	US-5-3	US-5-4	US-5-5	US-5-6	US-5-7	US-5-8
Sample Depth (ft bgs):		0.5	0.5	0.5	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1
Date Collected:		07/14/98	07/14/98	07/14/98	06/12/95	06/12/95	06/12/95	06/12/95	06/12/95	06/10/96	06/10/96	06/10/96	06/10/96	06/10/96	06/10/96	06/10/96	06/10/96
Semivolatile Organics (Cont'd.)																	
4-Bromophenyl-phenylether	mg/kg	NA	NA	NA	0.83 U	0.44 U	0.17 U	0.17 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	mg/kg	NA	NA	NA	R	R	R	0.17 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	mg/kg	NA	NA	NA	0.83 U	0.44 U	0.17 U	0.17 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorobenzilate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	mg/kg	NA	NA	NA	0.83 U	0.44 U	0.17 U	0.17 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	mg/kg	NA	NA	NA	0.83 U	R	R	0.17 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	mg/kg	NA	NA	NA	4.0 UJ	2.2 UJ	0.84 UJ	0.84 U	0.83 UJ	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	mg/kg	NA	NA	NA	R	R	R	0.84 UJ	0.83 UJ	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroquinoline-1-oxide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/kg	NA	NA	NA	0.13 J	0.44 U	0.078 J	0.17 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	mg/kg	NA	NA	NA	0.83 U	0.44 U	0.17 U	0.17 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/kg	NA	NA	NA	0.11 J	0.045 J	0.14 J	0.17 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA
Aramite	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/kg	NA	NA	NA	0.40 J	0.22 J	0.24	0.17 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	mg/kg	NA	NA	NA	0.83 U	0.44 UJ	0.17 J	0.17 UJ	0.17 UJ	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	mg/kg	NA	NA	NA	0.56 J	0.44 UJ	0.33	0.17 UJ	0.062 J	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	mg/kg	NA	NA	NA	0.83 UJ	0.44 UJ	0.094 J	0.17 UJ	0.17 UJ	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	mg/kg	NA	NA	NA	0.83 U	0.44 UJ	0.17 U	0.17 UJ	0.17 UJ	NA	NA	NA	NA	NA	NA	NA	NA
Benzoic Acid	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	mg/kg	NA	NA	NA	0.83 U	0.44 U	0.17 U	0.17 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	mg/kg	NA	NA	NA	0.83 U	0.44 U	0.17 U	0.17 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroisopropyl)ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	mg/kg	NA	NA	NA	0.83 U	0.44 U	0.10 J	0.17 U	0.15 J	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	mg/kg	NA	NA	NA	0.83 U	0.44 U	0.17 U	0.17 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	mg/kg	NA	NA	NA	0.83 U	0.44 U	0.076 J	0.17 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	mg/kg	NA	NA	NA	0.44 J	0.27 J	0.23	0.17 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA
Diallate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	mg/kg	NA	NA	NA	0.83 U	0.44 UJ	0.17 U	0.17 UJ	0.17 UJ	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	mg/kg	NA	NA	NA	0.15 J	0.44 U	0.096 J	0.019 J	0.034 J	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	mg/kg	NA	NA	NA	0.83 U	0.44 U	0.17 U	0.17 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	mg/kg	NA	NA	NA	0.83 U	0.44 U	0.17 U	0.17 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	mg/kg	NA	NA	NA	0.83 U	0.44 U	0.17 U	0.17 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	mg/kg	NA	NA	NA	0.83 U	0.44 UJ	0.17 U	0.17 UJ	0.17 UJ	NA	NA	NA	NA	NA	NA	NA	NA
Diphenylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		UP-S1	UP-S2	UP-S3	US-1	US-2	US-3	US-4	US-5	US-5-1	US-5-2	US-5-3	US-5-4	US-5-5	US-5-6	US-5-7	US-5-8
Sample Depth (ft bgs):		0.5	0.5	0.5	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1
Date Collected:	Units	07/14/98	07/14/98	07/14/98	06/12/95	06/12/95	06/12/95	06/12/95	06/12/95	06/10/96	06/10/96	06/10/96	06/10/96	06/10/96	06/10/96	06/10/96	06/10/96
Semivolatile Organics (Cont'd.)																	
Ethyl Methacrylate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	mg/kg	NA	NA	NA	1.1	0.40 J	0.58	0.065 J	0.065 J	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	mg/kg	NA	NA	NA	0.18 J	0.44 U	0.097 J	0.17 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	mg/kg	NA	NA	NA	0.83 U	0.44 U	0.17 U	0.17 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	mg/kg	NA	NA	NA	0.83 U	0.44 U	0.17 U	0.17 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	mg/kg	NA	NA	NA	0.83 U	0.44 U	0.17 U	0.17 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	mg/kg	NA	NA	NA	0.83 U	0.44 U	0.17 U	0.17 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorophene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloropropene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	mg/kg	NA	NA	NA	0.83 U	0.44 UJ	0.074 J	0.17 UJ	0.17 UJ	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	mg/kg	NA	NA	NA	0.83 U	0.44 U	0.17 U	0.17 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA
Isosafrole	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/kg	NA	NA	NA	0.83 U	0.44 U	0.11 J	0.075 J	0.13 J	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	mg/kg	NA	NA	NA	0.83 U	0.44 U	0.17 U	0.17 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	mg/kg	NA	NA	NA	0.83 U	0.44 U	0.17 U	0.17 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	mg/kg	NA	NA	NA	0.83 U	0.44 U	0.17 U	0.17 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomethylethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	mg/kg	NA	NA	NA	R	R	R	0.84 U	0.83 U	NA	NA	NA	NA	NA	NA	NA	NA
Phenacetin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	mg/kg	NA	NA	NA	1.2	0.25 J	0.69	0.076 J	0.11 J	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	mg/kg	NA	NA	NA	R	R	R	0.078 J	0.047 J	NA	NA	NA	NA	NA	NA	NA	NA
Pronamide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	mg/kg	NA	NA	NA	1.1	0.50	0.56	0.084 J	0.086 J	NA	NA	NA	NA	NA	NA	NA	NA
Pyridine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	mg/kg	NA	NA	NA	R	R	R	0.17 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organics-TCLP																	
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		UP-S1	UP-S2	UP-S3	US-1	US-2	US-3	US-4	US-5	US-5-1	US-5-2	US-5-3	US-5-4	US-5-5	US-5-6	US-5-7	US-5-8
Sample Depth (ft bgs):		0.5	0.5	0.5	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1
Date Collected:	Units	07/14/98	07/14/98	07/14/98	06/12/95	06/12/95	06/12/95	06/12/95	06/12/95	06/10/96	06/10/96	06/10/96	06/10/96	06/10/96	06/10/96	06/10/96	06/10/96
Semivolatile Organics-TCLP (Cont'd.)																	
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs																	
Aroclor-1016	mg/kg	.33 U [0.33 U	0.33 U	0.33 U	0.21 U	0.18 U	0.17 U	0.17 U	6.9 U	0.36 U	0.37 U	0.20 U	0.36 U	0.18 U	0.19 U	1.9 U	0.19 U
Aroclor-1221	mg/kg	.33 U [0.33 U	0.33 U	0.33 U	0.21 U	0.18 U	0.17 U	0.17 U	6.9 U	0.36 U	0.37 U	0.20 U	0.36 U	0.18 U	0.19 U	1.9 U	0.19 U
Aroclor-1232	mg/kg	.33 U [0.33 U	0.33 U	0.33 U	0.21 U	0.18 U	0.17 U	0.17 U	6.9 U	0.36 U	0.37 U	0.20 U	0.36 U	0.18 U	0.19 U	1.9 U	0.19 U
Aroclor-1242	mg/kg	.33 U [0.33 U	0.33 U	0.33 U	0.21 U	0.18 U	0.17 U	0.17 U	6.9 U	0.36 U	0.37 U	0.20 U	0.36 U	0.18 U	0.19 U	1.9 U	0.19 U
Aroclor-1248	mg/kg	.33 U [0.33 U	0.33 U	0.33 U	0.21 U	0.18 U	0.17 U	0.17 U	6.9 U	0.36 U	0.37 U	0.20 U	0.36 U	0.18 U	0.19 U	1.9 U	0.19 U
Aroclor-1254	mg/kg	0.68 [0.63]	0.28 J	0.34	0.21 U	0.18 U	0.17 U	0.17 U	6.9 U	0.72 U	0.74 U	0.20 U	0.73 U	0.18 U	0.37 U	3.7 U	0.19 U
Aroclor-1260	mg/kg	.33 U [0.33 U	0.33 U	0.33 U	0.13 J	0.15 J	0.040 J	0.44	41	3.4 J	3.1 J	0.72 J	4.4 J	0.73 J	2.2 J	26 J	0.19 UJ
Total PCBs	mg/kg	0.68 [0.63]	0.28 J	0.34	0.13 J	0.15 J	0.040 J	0.44	41	3.4 J	3.1 J	0.72 J	4.4 J	0.73 J	2.2 J	26 J	0.19 U
Organochlorine Pesticides																	
3-Methylcholanthrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDD	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroquinoline-1-oxide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Sample Depth (ft bgs):		0.5	0.5	0.5	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1
Date Collected:	Units	07/14/98	07/14/98	07/14/98	06/12/95	06/12/95	06/12/95	06/12/95	06/12/95	06/10/96	06/10/96	06/10/96	06/10/96	06/10/96	06/10/96	06/10/96	06/10/96
Organochlorine Pesticides-TCLP																	
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Technical Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides																	
2,4,5-T	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides-TCLP																	
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans																	
2,3,7,8-TCDD	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																	
Total Petroleum Hydrocarbons - extractable (DRO)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		US-6	US-7	US-8	VE-1	VE-2	WMB-1	WMB-2	WMB-3	WMB-4	WMB-5	WMB-6
Sample Depth (ft bgs):		0 - 1	0 - 1	0 - 1	0.75 - 1.58	0.92 - 1.67	3 - 3.5	3 - 3.5	5 - 5.5	0.5 - 1	0.5 - 1	4 - 4.5
Date Collected:	Units	06/12/95	06/12/95	06/12/95	08/10/01	08/10/01	01/22/97	01/22/97	01/22/97	01/22/97	01/22/97	01/22/97
Semivolatile Organics												
1,2,3,4-Tetrachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,5-Tetrachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4,5-Tetrachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	0.34 U	0.17 U	0.17 U	NA	NA	0.19 U	0.23 U	0.20 U	0.24 U	0.23 U	0.22 U
1,2-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	mg/kg	0.34 U	0.17 U	0.17 U	0.40 U	0.37 U	0.19 U	0.23 U	0.20 U	0.24 U	0.23 U	0.22 U
2,3,4,6-Tetrachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,5,6-Tetrachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	mg/kg	0.34 U	0.17 U	0.17 U	0.40 U	0.37 U	0.19 U	0.23 U	0.20 U	0.24 U	0.23 U	0.22 U
2,4,6-Trichlorophenol	mg/kg	0.34 U	0.17 U	0.17 U	0.40 U	0.37 U	0.19 U	0.23 U	0.20 U	0.24 U	0.23 U	0.22 U
2,4-Diaminotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	mg/kg	0.34 U	0.17 U	0.17 U	0.40 U	0.37 U	0.19 U	0.23 U	0.20 U	0.24 U	0.23 U	0.22 U
2,4-Dimethylphenol	mg/kg	0.34 U	0.17 U	0.17 U	0.40 U	0.37 U	0.19 U	0.23 U	0.20 U	0.24 U	0.23 U	0.22 U
2,4-Dinitrophenol	mg/kg	1.7 U	0.82 U	0.81 UJ	0.80 U	0.74 U	0.94 U	1.1 U	0.97 U	1.1 U	1.1 U	1.1 U
2,4-Dinitrotoluene	mg/kg	0.34 U	0.17 U	0.17 U	0.40 U	0.37 U	0.19 U	0.23 U	0.20 U	0.24 U	0.23 U	0.22 U
2,6-Dichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	mg/kg	0.34 U	0.17 U	0.17 U	0.40 U	0.37 U	0.19 U	0.23 U	0.20 U	0.24 U	0.23 U	0.22 U
2-Acetylaminofluorene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	mg/kg	0.34 U	0.17 U	0.17 U	0.40 U	0.37 U	0.19 U	0.23 U	0.20 U	0.24 U	0.23 U	0.22 U
2-Chlorophenol	mg/kg	0.34 U	0.17 U	0.17 U	0.40 U	0.37 U	0.19 U	0.23 U	0.20 U	0.24 U	0.23 U	0.22 U
2-Methylnaphthalene	mg/kg	0.26 J	0.16 J	0.48	0.40 U	0.054 J	0.19 U	0.23 U	0.075 J	0.24 U	0.23 U	0.22 U
2-Methylphenol	mg/kg	0.34 U	0.17 U	0.17 U	0.40 U	0.37 U	0.19 U	0.23 U	0.20 U	0.24 U	0.23 U	0.22 U
2-Naphthylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	mg/kg	1.7 U	0.82 U	0.81 U	0.40 U	0.37 U	0.94 U	1.1 U	0.97 U	1.1 U	1.1 U	1.1 U
2-Nitrophenol	mg/kg	0.34 U	0.17 U	0.17 U	0.40 U	0.37 U	0.19 U	0.23 U	0.20 U	0.24 U	0.23 U	0.22 U
2-Picoline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	mg/kg	0.68 UJ	0.34 U	0.33 U	0.40 U	0.37 U	0.39 U	0.47 U	0.40 U	0.47 U	0.46 U	0.45 U
3,3'-Dimethylbenzidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	mg/kg	1.7 U	0.82 U	0.81 U	0.40 U	0.37 U	0.94 U	1.1 U	0.97 U	1.1 U	1.1 U	1.1 U
4,4'-Methylene-bis(2-chloroaniline)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	mg/kg	1.7 U	0.82 U	0.81 U	0.80 U	0.74 U	0.94 U	1.1 U	0.97 U	1.1 U	1.1 U	1.1 U
4-Aminobiphenyl	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-3
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SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

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Date Collected:	Units	06/12/95	06/12/95	06/12/95	08/10/01	08/10/01	01/22/97	01/22/97	01/22/97	01/22/97	01/22/97	01/22/97
Semivolatile Organics (Cont'd.)												
4-Bromophenyl-phenylether	mg/kg	0.34 U	0.17 U	0.17 U	0.40 U	0.37 U	0.19 U	0.23 U	0.20 U	0.24 U	0.23 U	0.22 U
4-Chloro-3-Methylphenol	mg/kg	0.34 U	0.17 U	0.17 U	0.40 U	0.37 U	0.19 U	0.23 U	0.20 U	0.24 U	0.23 U	0.22 U
4-Chloroaniline	mg/kg	0.048 J	0.17 U	0.17 U	0.40 U	0.37 U	0.19 U	0.23 U	0.20 U	0.24 U	0.23 U	0.22 U
4-Chlorobenzilate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	mg/kg	0.34 U	0.17 U	0.17 U	0.40 U	0.37 U	0.19 U	0.23 U	0.20 U	0.24 U	0.23 U	0.22 U
4-Methylphenol	mg/kg	0.34 U	0.17 U	0.17 U	0.40 U	0.37 U	0.19 U	0.23 U	0.20 U	0.24 U	0.23 U	0.22 U
4-Nitroaniline	mg/kg	1.7 UJ	0.82 UJ	0.81 UJ	0.40 U	0.37 U	0.94 U	1.1 U	0.97 U	1.1 U	1.1 U	1.1 U
4-Nitrophenol	mg/kg	1.7 UJ	0.82 UJ	0.81 UJ	R	R	0.94 U	1.1 U	0.97 U	1.1 U	1.1 U	1.1 U
4-Nitroquinoline-1-oxide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/kg	0.34 U	0.17 U	0.020 J	0.40 U	0.37 U	0.19 U	0.23 U	0.20 U	0.24 U	0.23 U	0.22 U
Acenaphthylene	mg/kg	0.34 U	0.17 U	0.17 U	0.40 U	0.37 U	0.19 U	0.23 U	0.20 U	0.24 U	0.23 U	0.22 U
Acetophenone	mg/kg	NA	NA	NA	0.40 U	0.37 U	NA	NA	NA	NA	NA	NA
Aniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/kg	0.23 J	0.17 U	0.019 J	0.40 U	0.37 U	0.19 U	0.077 J	0.20 U	0.24 U	0.23 U	0.22 U
Aramite	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	mg/kg	NA	NA	NA	0.40 U	0.37 U	NA	NA	NA	NA	NA	NA
Benzaldehyde	mg/kg	NA	NA	NA	0.40 U	0.37 U	NA	NA	NA	NA	NA	NA
Benzidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/kg	0.13 J	0.17 U	0.10 J	0.40 U	0.13 J	0.14 J	0.25	0.20 U	0.055 J	0.23 U	0.22 U
Benzo(a)pyrene	mg/kg	0.34 UJ	0.17 U	0.060 J	0.40 U	0.15 J	0.21	0.27	0.20 U	0.084 J	0.23 U	0.22 U
Benzo(b)fluoranthene	mg/kg	0.34 UJ	0.17 U	0.16 J	0.40 U	0.16 J	0.24	0.34	0.20 U	0.096 J	0.23 U	0.22 U
Benzo(g,h,i)perylene	mg/kg	0.34 UJ	0.17 UJ	0.039 J	0.40 U	0.14 J	0.18 J	0.17 J	0.20 U	0.053 J	0.23 U	0.22 U
Benzo(k)fluoranthene	mg/kg	0.34 UJ	0.17 U	0.047 J	0.40 U	0.13 J	0.090 J	0.15 J	0.20 U	0.24 U	0.23 U	0.22 U
Benzoic Acid	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	mg/kg	NA	NA	NA	0.40 U	0.37 U	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	mg/kg	0.34 U	0.17 U	0.17 U	0.40 U	0.37 U	0.19 U	0.23 U	0.20 U	0.24 U	0.23 U	0.22 U
bis(2-Chloroethyl)ether	mg/kg	0.34 U	0.17 U	0.17 U	0.40 U	0.37 U	0.19 U	0.23 U	0.20 U	0.24 U	0.23 U	0.22 U
bis(2-Chloroisopropyl)ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	mg/kg	0.34 UJ	0.17 U	0.075 J	0.40 U	0.37 U	0.19 U	0.11 J	0.20 U	0.24 U	0.23 U	0.22 U
Butylbenzylphthalate	mg/kg	0.34 UJ	0.17 U	0.027 J	0.40 U	0.37 U	0.19 U	0.23 U	0.20 U	0.24 U	0.23 U	0.22 U
Caprolactam	mg/kg	NA	NA	NA	0.40 U	0.37 U	NA	NA	NA	NA	NA	NA
Carbazole	mg/kg	0.34 U	0.17 U	0.17 U	0.40 U	0.37 U	0.19 U	0.23 U	0.20 U	0.24 U	0.23 U	0.22 U
Chrysene	mg/kg	0.16 J	0.17 U	0.16 J	0.40 U	0.17 J	0.18 J	0.21 J	0.20 U	0.072 J	0.23 U	0.22 U
Diallate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	mg/kg	0.34 UJ	0.17 U	0.17 U	0.40 U	0.37 U	0.19 U	0.23 U	0.20 U	0.24 U	0.23 U	0.22 U
Dibenzofuran	mg/kg	0.055 J	0.035 J	0.10 J	0.40 U	0.37 U	0.19 U	0.23 U	0.20 U	0.24 U	0.23 U	0.22 U
Diethylphthalate	mg/kg	0.34 U	0.17 U	0.17 UJ	0.40 U	0.37 U	0.19 U	0.23 U	0.20 U	0.24 U	0.23 U	0.22 U
Dimethylphthalate	mg/kg	0.34 U	0.17 U	0.17 U	0.40 U	0.37 U	0.19 U	0.23 U	0.20 U	0.24 U	0.23 U	0.22 U
Di-n-Butylphthalate	mg/kg	0.34 U	0.17 U	0.17 U	0.40 U	0.37 U	0.19 U	0.23 U	0.20 U	0.24 U	0.23 U	0.22 U
Di-n-Octylphthalate	mg/kg	0.34 UJ	0.17 U	0.17 U	0.40 U	0.37 U	0.19 U	0.23 U	0.20 U	0.24 U	0.23 U	0.22 U
Diphenylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Date Collected:	Units	06/12/95	06/12/95	06/12/95	08/10/01	08/10/01	01/22/97	01/22/97	01/22/97	01/22/97	01/22/97	01/22/97
Semivolatile Organics (Cont'd.)												
Ethyl Methacrylate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	mg/kg	0.18 J	0.050 J	0.23	0.40 U	0.21 J	0.29	0.38	0.20 U	0.24 U	0.23 U	0.22 U
Fluorene	mg/kg	0.34 U	0.17 U	0.017 J	0.40 U	0.37 U	0.19 U	0.23 U	0.20 U	0.24 U	0.23 U	0.22 U
Hexachlorobenzene	mg/kg	0.34 U	0.17 U	0.17 U	0.40 U	0.37 U	0.19 U	0.23 U	0.20 U	0.24 U	0.23 U	0.22 U
Hexachlorobutadiene	mg/kg	0.34 U	0.17 U	0.17 U	0.40 U	0.37 U	0.19 U	0.23 U	0.20 U	0.24 U	0.23 U	0.22 U
Hexachlorocyclopentadiene	mg/kg	0.34 U	0.17 U	0.17 U	0.40 U	0.37 U	0.19 U	0.23 U	0.20 U	0.24 U	0.23 U	0.22 U
Hexachloroethane	mg/kg	0.34 U	0.17 U	0.17 U	0.40 U	0.37 U	0.19 U	0.23 U	0.20 U	0.24 U	0.23 U	0.22 U
Hexachlorophene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloropropene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	mg/kg	0.34 UJ	0.17 U	0.028 J	0.40 U	0.11 J	0.32	0.35	0.20 U	0.24 U	0.23 U	0.22 U
Isophorone	mg/kg	0.34 U	0.17 U	0.17 U	0.40 U	0.37 U	0.19 U	0.23 U	0.20 U	0.24 U	0.23 U	0.22 U
Isosafrole	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/kg	0.19 J	0.11 J	0.35	0.049 J	0.037 J	0.19 U	0.23 U	0.20 U	0.24 U	0.23 U	0.22 U
Nitrobenzene	mg/kg	0.34 U	0.17 U	0.17 U	0.40 U	0.37 U	0.19 U	0.23 U	0.20 U	0.24 U	0.23 U	0.22 U
N-Nitrosodiethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	mg/kg	0.34 U	0.17 U	0.17 U	0.40 U	0.37 U	0.19 U	0.23 U	0.20 U	0.24 U	0.23 U	0.22 U
N-Nitrosodiphenylamine	mg/kg	0.34 U	0.17 U	0.17 U	0.40 U	0.37 U	0.19 U	0.23 U	0.20 U	0.24 U	0.23 U	0.22 U
N-Nitrosomethylethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	mg/kg	1.7 U	0.82 U	0.81 UJ	0.40 U	0.37 U	0.94 U	1.1 U	0.97 U	1.1 U	1.1 U	1.1 U
Phenacetin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	mg/kg	0.22 J	0.098 J	0.27	0.40 U	0.11 J	0.16 J	0.30	0.20 U	0.24 U	0.23 U	0.22 U
Phenol	mg/kg	0.045 J	0.025 J	0.044 J	0.40 U	0.37 U	0.19 U	0.23 U	0.20 U	0.24 U	0.23 U	0.22 U
Pronamide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	mg/kg	0.31 J	0.078 J	0.25	0.40 U	0.18 J	0.26	0.34	0.20 U	0.10 J	0.23 U	0.22 U
Pyridine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	mg/kg	0.34 U	0.17 U	0.17 U	0.40 U	0.37 U	0.19 U	0.23 U	0.20 U	0.24 U	0.23 U	0.22 U
Semivolatile Organics-TCLP												
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		US-6	US-7	US-8	VE-1	VE-2	WMB-1	WMB-2	WMB-3	WMB-4	WMB-5	WMB-6
Sample Depth (ft bgs):		0 - 1	0 - 1	0 - 1	0.75 - 1.58	0.92 - 1.67	3 - 3.5	3 - 3.5	5 - 5.5	0.5 - 1	0.5 - 1	4 - 4.5
Date Collected:	Units	06/12/95	06/12/95	06/12/95	08/10/01	08/10/01	01/22/97	01/22/97	01/22/97	01/22/97	01/22/97	01/22/97
Semivolatile Organics-TCLP (Cont'd.)												
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs												
Aroclor-1016	mg/kg	0.69 U	0.34 U	1.7 U	0.040 U	0.037 U	0.19 U	0.23 U	0.20 U	0.24 U	0.23 U	0.22 U
Aroclor-1221	mg/kg	0.69 U	0.34 U	1.7 U	0.040 U	0.037 U	0.19 U	0.23 U	0.20 U	0.24 U	0.23 U	0.22 U
Aroclor-1232	mg/kg	0.69 U	0.34 U	1.7 U	0.040 U	0.037 U	0.19 U	0.23 U	0.20 U	0.24 U	0.23 U	0.22 U
Aroclor-1242	mg/kg	0.69 U	0.34 U	1.7 U	0.040 U	0.037 U	0.19 U	0.23 U	0.20 U	0.24 U	0.23 U	0.22 U
Aroclor-1248	mg/kg	0.69 U	0.34 U	1.7 U	0.040 U	0.037 U	0.19 U	0.23 U	0.20 U	0.24 U	0.23 U	0.22 U
Aroclor-1254	mg/kg	0.69 U	0.34 U	1.7 U	0.061	0.037 U	0.19 U	0.23 U	0.20 U	0.24 U	0.23 U	0.22 U
Aroclor-1260	mg/kg	3.8	1.0	5.0	0.040 U	0.099 JN	0.19 U	0.23 U	0.20 U	0.24 U	0.23 U	0.22 U
Total PCBs	mg/kg	3.8	1.0	5.0	0.061	0.099 J	0.19 U	0.23 U	0.20 U	0.24 U	0.23 U	0.22 U
Organochlorine Pesticides												
3-Methylcholanthrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDD	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroquinoline-1-oxide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-3
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA ORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID:		US-6	US-7	US-8	VE-1	VE-2	WMB-1	WMB-2	WMB-3	WMB-4	WMB-5	WMB-6
Sample Depth (ft bgs):		0 - 1	0 - 1	0 - 1	0.75 - 1.58	0.92 - 1.67	3 - 3.5	3 - 3.5	5 - 5.5	0.5 - 1	0.5 - 1	4 - 4.5
Date Collected:	Units	06/12/95	06/12/95	06/12/95	08/10/01	08/10/01	01/22/97	01/22/97	01/22/97	01/22/97	01/22/97	01/22/97
Organochlorine Pesticides-TCLP												
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Technical Chlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides												
2,4,5-T	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides-TCLP												
2,4,5-TP	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans												
2,3,7,8-TCDD	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzofuran (HxCDF)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hexachlorodibenzo-p-dioxin (HxCDD)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzofuran (PeCDF)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pentachlorodibenzo-p-dioxin (PeCDD)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzofuran (TCDF)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Tetrachlorodibenzo-p-dioxin (TCDD)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD (TEQ)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH												
Total Petroleum Hydrocarbons - extractable (DRO)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-4
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA INORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID: Sample Depth (ft bgs): Date Collected:	Units	Soil Saturation Concentration Screening Levels (CSAT)	Groundwater Contact Protection (GCCP)	Groundwater Surface Water Interface Protection (GSIP)	Industrial Direct Contact (IDC)	Industrial Drinking Water Protection (IDWP)	Industrial Particulate Soil Inhalation Criteria (IPSIC)	Industrial Soil Volatilization to Indoor Air Inhalation (ISVIA)	Finite VSIC for 2 Meter Source Thickness (IVSIC2)	Finite VSIC for 5 Meter Source Thickness (IVSIC5)
Inorganics										
Aluminum	mg/kg	{NA}	1,000,000 {B,D}	{NA}	370,000 {B,DD}	6,900 {SDBL}	{ID}	{NLV}	{NLV}	{NLV}
Antimony	mg/kg	{NA}	49,000	94	670	4.3	5,900	{NLV}	{NLV}	{NLV}
Arsenic	mg/kg	{NA}	2,000	70 {X}	37	5.8 {SDBL}	910	{NLV}	{NLV}	{NLV}
Barium	mg/kg	{NA}	1,000,000 {B,D}	780 {B,G,X}	130,000 {B}	1,300 {B}	150,000 {B}	{NLV}	{NLV}	{NLV}
Beryllium	mg/kg	{NA}	1,000,000 {D}	330 {G}	1,600	51	590	{NLV}	{NLV}	{NLV}
Cadmium	mg/kg	{NA}	230,000 {B}	5.4 {B,G,X}	2,100 {B}	6 {B}	2,200 {B}	{NLV}	{NLV}	{NLV}
Calcium	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -
Chromium Total	mg/kg	{NA}	140,000	18 {SDBL}	9,200	30	240	{NLV}	{NLV}	{NLV}
Cobalt	mg/kg	{NA}	48,000	6.8 {SDBL}	9,000	6.8 {SDBL}	5,900	{NLV}	{NLV}	{NLV}
Copper	mg/kg	{NA}	1,000,000 {B,D}	120 {B,G}	73,000 {B}	5,800 {B}	59,000 {B}	{NLV}	{NLV}	{NLV}
Cyanide (total)	mg/kg	{NA}	250 {P,R}	0.39 {SDBL}	250 {P,R}	4 {P,R}	250 {P,R}	{NLV}	{NLV}	{NLV}
Iron	mg/kg	{NA}	1,000,000 {B,D}	{NA}	580,000 {B}	12,000 {SDBL}	{ID}	{NLV}	{NLV}	{NLV}
Lead	mg/kg	{NA}	{ID}	5,000 {B,G,X}	900 {B,DD}	700 {B}	44,000 {B}	{NLV}	{NLV}	{NLV}
Lead - Coarse Fraction	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -
Lead - Fine Fraction	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -
Lead - Total (Calculated by fine/coarse fraction)	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -
Magnesium	mg/kg	{NA}	1,000,000 {B,D}	{NA}	1,000,000 {B,D}	22,000 {B}	2,900,000 {B}	{NLV}	{NLV}	{NLV}
Manganese	mg/kg	{NA}	180,000 {B}	440 {SDBL}	90,000 {B}	440 {SDBL}	1,500 {B}	{NLV}	{NLV}	{NLV}
Mercury	mg/kg	{NA}	47 {B,Z}	0.13 {SDBL}	580 {B,Z}	1.7 {B,Z}	8,800 {B,Z}	89 {B,Z}	62 {B,Z}	62 {B,Z}
Nickel	mg/kg	{NA}	1,000,000 {B,D}	120 {B,G}	150,000 {B}	100 {B}	16,000 {B}	{NLV}	{NLV}	{NLV}
Potassium	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -
Selenium	mg/kg	{NA}	78,000 {B}	0.41 {SDBL}	9,600 {B}	4 {B}	59,000 {B}	{NLV}	{NLV}	{NLV}
Silver	mg/kg	{NA}	200,000 {B}	1 {SDBL}	9,000 {B}	13 {B}	2,900 {B}	{NLV}	{NLV}	{NLV}
Sodium	mg/kg	{NA}	1,000,000 {D}	{NA}	1,000,000 {D}	7,000	{ID}	{NLV}	{NLV}	{NLV}
Sulfide	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -
Thallium	mg/kg	{NA}	15,000 {B}	4.2 {B,X}	130 {B}	2.3 {B}	{ID}	{NLV}	{NLV}	{NLV}
Tin	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -
Vanadium	mg/kg	{NA}	1,000,000 {D}	190	5,500 {DD}	990	{ID}	{NLV}	{NLV}	{NLV}
Zinc	mg/kg	{NA}	1,000,000 {B,D}	260 {B,G}	630,000 {B}	5,000 {B}	{ID}	{NLV}	{NLV}	{NLV}

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TABLE A-4
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA INORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID: Sample Depth (ft bgs): Date Collected:	Units	Infinite Source Volatile Soil Inhalation Criteria (VSIC) (IVSICI)	Residential Drinking Water Protection (RDWP)	BBL-MW1 4 - 6 05/02/96	BBL-MW2 4 - 6 05/02/96	BBL-MW3 6 - 8 05/02/96	BBL-MW4 4 - 6 05/03/96	BBL-MW5 4 - 6 05/03/96	BBL-SB1 4 - 6 05/06/96	BBL-SB1 8 - 10 05/06/96	BBL-SB2 0 - 2 05/07/96	BBL-SB3 6 - 8 05/07/96	BBL-SB3 8 - 10 05/07/96	BBL-SB4 0 - 2 05/07/96
Inorganics														
Aluminum	mg/kg	{NLV}	6,900 {SDBL}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	mg/kg	{NLV}	4.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	mg/kg	{NLV}	5.8 {SDBL}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	mg/kg	{NLV}	1,300 {B}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	mg/kg	{NLV}	51	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	mg/kg	{NLV}	6 {B}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	mg/kg	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	mg/kg	{NLV}	30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	mg/kg	{NLV}	6.8 {SDBL}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	mg/kg	{NLV}	5,800 {B}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	mg/kg	{NLV}	4 {P,R}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	mg/kg	{NLV}	12,000 {SDBL}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	mg/kg	{NLV}	700 {B}	38.0	12.0	13.2	4.48	2.55	4.39	17.8	28.3	38.2	25.5	14.8
Lead - Coarse Fraction	mg/kg	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Fine Fraction	mg/kg	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Total (Calculated by fine/coarse fraction)	mg/kg	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	mg/kg	{NLV}	8,000 {B}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	mg/kg	{NLV}	440 {SDBL}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	mg/kg	62 {B,Z}	1.7 {B,Z}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	mg/kg	{NLV}	100 {B}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	mg/kg	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	mg/kg	{NLV}	4 {B}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	mg/kg	{NLV}	4.5 {B}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	mg/kg	{NLV}	2,500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	mg/kg	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/kg	{NLV}	2.3 {B}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin	mg/kg	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	mg/kg	{NLV}	72	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	mg/kg	{NLV}	2,400 {B}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-4
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA INORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID: Sample Depth (ft bgs): Date Collected:	Units	BBL-SB4 8 - 10 05/07/96	BBL-SB5 0 - 2 05/06/96	BBL-SB5 20 - 22 05/06/96	BH7 0 - 2 03/06/07	BH7 2 - 4 03/06/07	BH8 0 - 2 03/06/07	BH8 2 - 4 03/06/07	BH9 0 - 2 03/06/07	BH9 2 - 4 03/06/07	BH10 0 - 2 03/06/07	BH10 2 - 4 03/06/07	BH11 0 - 2 03/06/07	BH11 2 - 4 03/06/07
Inorganics														
Aluminum	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	mg/kg	NA	NA	NA	0.180 UJ	0.210 UJ	0.170 UJ	0.190 UJ	0.170 UJ	0.190 UJ	0.180 UJ	0.170 UJ	0.290 J	0.190 UJ
Arsenic	mg/kg	NA	NA	NA	2.30	2.90	1.40	1.30	2.90	2.30	3.20	1.20	3.70	5.00
Barium	mg/kg	NA	NA	NA	39.4	49.8	18.2	16.3	40.3	28.7	125	184	69.2	68.4
Beryllium	mg/kg	NA	NA	NA	0.0560 J	0.430	0.0950 J	0.190 U	0.170 U	0.0910 J	0.180 U	0.170 U	0.180 U	0.240
Cadmium	mg/kg	NA	NA	NA	0.190	0.270	0.150	0.130	0.220	0.180	0.450	0.580	1.30	0.190
Calcium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	mg/kg	NA	NA	NA	26.3	13.7	11.9	14.3	18.9	7.10	108	142	95.8	21.6
Cobalt	mg/kg	NA	NA	NA	4.80	3.40	1.30	1.40	2.70	2.60	3.60	3.70	11.5	8.40
Copper	mg/kg	NA	NA	NA	15.8	13.8	7.00	7.70	41.0	11.6	26.7	37.6	117	13.6
Cyanide (total)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	mg/kg	14.9	138	5.17	8.00	21.4	5.90	4.50	31.0	10.4	7.40	7.10	93.2	11.0
Lead - Coarse Fraction	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	143	NA
Lead - Fine Fraction	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	364	NA
Lead - Total (Calculated by fine/coarse fraction)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	217	NA
Magnesium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	mg/kg	NA	NA	NA	388	370	163	160	965	255	9,200	11,900	2,540	191
Mercury	mg/kg	NA	NA	NA	0.0440 U	0.0540 U	0.0430 U	0.0480 U	0.0430 U	0.0190 J	0.0450 U	0.0420 U	0.100	0.0270 J
Nickel	mg/kg	NA	NA	NA	19.0	10.3	7.80	9.80	12.8	6.50	10.5	8.80	64.9	23.0
Potassium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	mg/kg	NA	NA	NA	0.180 U	0.500	0.250	0.150 J	0.200	0.210	0.180 U	0.170 U	0.210	0.190 U
Silver	mg/kg	NA	NA	NA	0.0670 J	0.130	0.0460 J	0.0370 J	0.0550 J	0.0930 U	0.110	0.280	0.210	0.100
Sodium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/kg	NA	NA	NA	0.0650 J	0.0620 J	0.0470 J	0.0310 J	0.0330 J	0.0590 J	0.0460 J	0.0310 J	0.0530 J	0.130
Tin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	mg/kg	NA	NA	NA	12.7	8.50	4.90	5.10	9.30	10.0	30.4	41.0	11.5	26.5
Zinc	mg/kg	NA	NA	NA	81.9	43.6	255	96.5	38.2	13.8	18.3	17.9	473	48.0

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TABLE A-4
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA INORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID: Sample Depth (ft bgs): Date Collected:	Units	BH12 0 - 2 03/06/07	BH12 2 - 4 03/06/07	FS-1 0 - 1 06/12/95	FS-2 0 - 1 06/12/95	FS-3 0 - 1 06/12/95	FS-4 0 - 1 06/12/95	FS-5 0 - 1 06/12/95	FS-6 0 - 1 06/12/95	FS-7 0 - 1 06/12/95	FS-8 0 - 1 06/12/95	MW-126WT 14 - 16 02/08/95
Inorganics												
Aluminum	mg/kg	NA	NA	2,390	2,920	4,400	5,630	5,350	3,330 [3,670]	2,680	6,750	NA
Antimony	mg/kg	0.190 J [0.840 J]	0.130 J	0.953 J	0.670 J	0.581 J	0.558 UJ*	0.538 UJ*	0.482 J [0.256 UJ]	0.268 UJ	0.523 UJ*	0.286 UJ
Arsenic	mg/kg	4.40 [5.10]	2.20	2.78	4.24	2.44	3.30	1.49 J	1.74 J [1.88]	1.35	2.51	2.33 J
Barium	mg/kg	158 [95.7]	135	24.2	19.9	31.0	29.0	29.8	19.1 [19.4]	14.2	36.5	64.6 J
Beryllium	mg/kg	0.180 U [0.180 U]	0.180 U	0.538 U	0.543 U	0.560 U	0.558 U	0.538 U	0.511 U [0.511 U]	0.536 U	0.523 U	0.686
Cadmium	mg/kg	3.30 J [1.60 J]	0.320	0.356	0.111	0.197	0.136	0.136	0.0730 [0.0844]	0.0268 U	0.162	0.0783
Calcium	mg/kg	NA	NA	13,400 J	31,500 J	13,300 J	41,700 J	6,940 J	5,040 J [3,740 J]	1,470 J	13,100 J	NA
Chromium Total	mg/kg	918 [572]	137	18.9	36.2	36.2	16.8	17.8	11.8 [12.0]	10.5	25.9	23.8
Cobalt	mg/kg	111 [38.7]	1.90	5.38 U	5.43 U	5.60 U	5.58 U	5.38 U	5.11 U [5.11 U]	5.36 U	5.23 U	9.37
Copper	mg/kg	387 J [120 J]	10.9	46.5	27.3	18.6	15.9	13.6	11.0 [10.2]	9.69	15.2	13.9
Cyanide (total)	mg/kg	NA	NA	0.270 U	0.860	0.280 U	0.280 U	0.270 U	0.260 U [0.260 U]	0.000270 U	0.260 U	0.290 U
Iron	mg/kg	NA	NA	28,600	34,900	15,800	12,500	12,600	10,900 [10,000]	10,600	13,000	NA
Lead	mg/kg	189 [77.7]	8.80	35.5 J	9.58 J	21.5 J	7.94 J	6.63 J	2.91 J [2.78 J]	2.56 J	10.5 J	5.33 J
Lead - Coarse Fraction	mg/kg	229 J [48.2 J]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Fine Fraction	mg/kg	731 J [78.0 J]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Total (Calculated by fine/coarse fraction)	mg/kg	400 J [56.8 J]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	mg/kg	NA	NA	2,980	7,010	2,340	3,040	3,750	2,380 [2,230]	990	5,580	NA
Manganese	mg/kg	7,380 [6,770]	7,470	398 J	330 J	1,200 J	290 J	371 J	174 J [280 J]	162 J	681 J	NA
Mercury	mg/kg	0.970 J [0.220 J]	0.0440 U	0.0881	0.0543 U	0.0560 U	0.0558 U	0.0538 U	0.0511 U [0.0511 U]	0.0536 U	0.0523 U	0.0572 UJ
Nickel	mg/kg	787 [384]	5.10	19.4	24.6	18.5	11.9	12.4	8.02 [8.34]	7.18	14.6	20.9
Potassium	mg/kg	NA	NA	538 U	543 U	560 U	978	848	511 U [520]	536 U	1,200	NA
Selenium	mg/kg	0.180 U [0.180 U]	0.180 U	0.269 UJ	0.601 J	0.280 UJ	0.558 UJ*	0.538 UJ*	0.255 UJ [0.256 UJ]	0.268 UJ	0.523 UJ*	0.286 UJ
Silver	mg/kg	0.220 J [1.20 J]	0.0810 J	0.269 UJ	0.272 UJ	0.280 UJ	0.558 UJ*	0.538 UJ*	0.255 UJ [0.511 UJ*]	0.268 UJ	0.523 UJ*	0.286 U
Sodium	mg/kg	NA	NA	538 U	543 U	560 U	558 U	538 U	511 U [511 U]	536 U	523 U	NA
Sulfide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	57.0 U
Thallium	mg/kg	0.0200 J [0.0270 J]	0.0120 J	0.269 UJ	0.272 UJ	0.280 UJ	0.279 UJ	0.269 UJ	0.255 UJ [0.256 UJ]	0.268 UJ	0.262 UJ	0.286 UW
Tin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	114 U
Vanadium	mg/kg	33.9 [26.0]	22.0	7.37	7.88	10.6	13.1	13.2	8.22 [8.64]	5.89	16.1	34.1
Zinc	mg/kg	355 [421]	20.2	73.5	32.3	53.3	29.9	26.5	18.0 [19.7]	12.6	38.6	31.6 J

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TABLE A-4
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA INORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID: Sample Depth (ft bgs): Date Collected:	Units	MW-145WT 7 - 17 06/08/95	MW-183WT 8 - 8.5 07/24/00	NS-1 0 - 14 06/23/95	NS-7 0 - 4.5 06/21/95	NS-8 0 - 10 06/21/95	NS-9 0 - 4.5 06/21/95	NS-10 0 - 10 06/21/95	NS-RS-4 2.5 - 3 06/13/95	PL-1 0.75 - 1.21 08/10/01	PL-2 0.75 - 1.67 08/10/01	PL-3 0.67 - 1.67 08/10/01	PL-4 0.75 - 1.5 08/10/01
Inorganics													
Aluminum	mg/kg	NA	4,830	13,100	2,150	2,920	1,520	12,600 J	NA	20,900	13,600 [14,900]	4,300	6,100
Antimony	mg/kg	NA	7.70 UJ	0.739 UJ*	0.314 UJ	0.362 UJ	0.325 UJ	0.672 UJ*	1.27 UJ*	2.50 UJ	1.30 J [1.40 J]	1.80 J	1.20 J
Arsenic	mg/kg	NA	5.20 J	5.10 J	1.53	7.31	2.08	8.20 J	7.04 J	9.70	2.90 [3.00]	3.20	4.00
Barium	mg/kg	NA	39.9	128	23.7	24.8	18.2	114	62.2 J	180	110 [110]	140	58.0
Beryllium	mg/kg	NA	0.640 U	0.739	0.629 U	0.724 U	0.651 U	0.739	0.633 U	0.200 UJ	0.200 UJ [0.200 UJ]	0.200 UJ	0.200 UJ
Cadmium	mg/kg	NA	0.0900 B	0.464	0.0428	0.125	0.0390	0.319	0.158 J	0.500 U	0.100 U [0.100 U]	0.100 U	0.660
Calcium	mg/kg	NA	31,200	29,400 J	39,200 J	43,600 J	34,400 J	30,900	NA	83,300	68,900 [87,900]	67,700	13,000
Chromium Total	mg/kg	NA	10.4	24.2	5.41	7.53	3.84	23.5 J	22.2 J	190	110 [110]	200	40.0
Cobalt	mg/kg	NA	3.70 B	9.69	6.29 U	7.24 U	6.51 U	9.47	6.33 U	61.0	27.0 [26.0]	19.0	74.0
Copper	mg/kg	NA	6.50	18.8	3.58	4.85	2.60	17.3	12.1 J	100 J	34.0 J [31.0 J]	36.0 J	62.0 J
Cyanide (total)	mg/kg	NA	0.640 U	0.370 U	0.310 U	0.560	0.330 U	0.340 U	0.320 U	0.500 U	0.500 U [1.10]	0.500 U	0.500 U
Iron	mg/kg	NA	11,800	19,000 J	4,900	7,070	3,720	26,100	NA	85,400	28,100 [35,200]	50,000	27,900
Lead	mg/kg	NA	3.90 U	13.7	2.13	2.52	1.48	7.48	6.29 J	6.60	11.0 [12.0]	7.70	74.0
Lead - Coarse Fraction	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Fine Fraction	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Total (Calculated by fine/coarse fraction)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	mg/kg	NA	11,600	15,200	10,700	13,900	8,550	20,200	NA	9,100	5,800 [7,700]	1,800	700
Manganese	mg/kg	NA	333	335	218	134	170	1,190	NA	11,600	6,600 [7,700]	10,700	1,800
Mercury	mg/kg	NA	0.0290 BJ	0.0739 UJ	0.0629 U	0.0724 U	0.0651 U	0.0672 U	0.0633 U	NA	0.100 U [0.100 U]	0.100 U	0.100 U
Nickel	mg/kg	NA	8.10	24.3	6.10	7.17	3.90	20.5	17.5 J	80.0	22.0 [22.0]	24.0	34.0
Potassium	mg/kg	NA	649	1,870	629 U	724 U	651 U	1,290	NA	2,600	1,600 [1,800]	2,400	980
Selenium	mg/kg	NA	0.640 U	0.739 UJ*	0.314 U	0.362 UJ	0.325 U	0.672 UJ*	1.27 U*	2.50 U	2.50 U [2.50 U]	2.50 U	0.500 U
Silver	mg/kg	NA	1.30 U	0.739 UJ*	0.314 UJ	0.362 UJ	0.325 UJ	0.672 U*	1.27 UJ*	2.50 U	2.50 U [2.50 U]	2.50 U	0.500 U
Sodium	mg/kg	NA	640 U	739 U	629 U	724 U	651 U	672 U	NA	780	390 [360]	870	380
Sulfide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/kg	NA	1.30 U	0.370 U	0.314 UJ	0.362 UJ	0.325 UJ	0.336 U	0.317 U	5.00 U	5.00 U [5.00 U]	5.00 U	3.60
Tin	mg/kg	NA	NA	NA	NA	NA	NA	NA	127 U	NA	NA	NA	NA
Vanadium	mg/kg	NA	13.9	32.3	5.97	10.1	5.92	26.6	26.9 J	45.0	28.0 [31.0]	38.0	12.0
Zinc	mg/kg	NA	26.9 J	61.2	12.5	18.1	10.8	51.7	37.0	16.0	19.0 [20.0]	25.0	330

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TABLE A-4
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA INORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID: Sample Depth (ft bgs): Date Collected:	Units	RS-1 0 - 1 06/13/95	RS-2 0 - 1 06/13/95	RS-2-1 0 - 1 06/10/96	RS-2-2 0 - 1 06/10/96	RS-2-3 0 - 1 06/10/96	RS-2-4 0 - 1 06/10/96	RS-2-5 0 - 1 06/10/96	RS-2-6 0 - 1 06/10/96	RS-2-7 0 - 1 06/10/96	RS-2-8 0 - 1 06/10/96	RS-3 0 - 1 06/13/95	RS-4 0 - 1 06/13/95	RS-5 0 - 1 06/13/95
Inorganics														
Aluminum	mg/kg	3,870	6,630	NA	NA	NA	NA	NA	NA	NA	NA	8,000	3,710 J [2,920 J]	3,590 J
Antimony	mg/kg	1.12 J	5.89 J	NA	NA	NA	NA	NA	NA	NA	NA	1.34 UJ*	1.06 UJ* [1.06 UJ*]	1.25 J
Arsenic	mg/kg	3.04	11.8	NA	NA	NA	NA	NA	NA	NA	NA	6.93	6.00 J [7.02 J]	31.1 J
Barium	mg/kg	44.4	247	NA	NA	NA	NA	NA	NA	NA	NA	117	76.8 J [82.1 J]	81.8 J
Beryllium	mg/kg	0.526 U	0.543	NA	NA	NA	NA	NA	NA	NA	NA	0.591	0.636 J [0.740 J]	0.748 J
Cadmium	mg/kg	0.747	6.38	NA	NA	NA	NA	NA	NA	NA	NA	2.46	0.775 J [0.812 J]	0.812 J
Calcium	mg/kg	7,750 J	31,300 J	NA	NA	NA	NA	NA	NA	NA	NA	34,600 J	56,900 J [24,600 J]	45,700 J
Chromium Total	mg/kg	60.3	1,110	NA	NA	NA	NA	NA	NA	NA	NA	273	62.8 J [62.3 J]	99.7 J
Cobalt	mg/kg	8.52	143	NA	NA	NA	NA	NA	NA	NA	NA	44.6	15.6 [15.8]	21.7
Copper	mg/kg	53.4	274	NA	NA	NA	NA	NA	NA	NA	NA	114	27.3 J [31.4 J]	41.0 J
Cyanide (total)	mg/kg	0.260 U	0.270 U	NA	NA	NA	NA	NA	NA	NA	NA	0.270 U	0.260 U [0.260 U]	0.320
Iron	mg/kg	45,400	12,000	NA	NA	NA	NA	NA	NA	NA	NA	43,000	14,400 J [22,400 J]	18,400 J
Lead	mg/kg	97.9 J	530 J	279 J	237 J	335 J	456 J	769 J	214 J [1,370 J]	159 J	209 J	161 J	30.1 J [29.8 J]	44.7 J
Lead - Coarse Fraction	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Fine Fraction	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Total (Calculated by fine/coarse fraction)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	mg/kg	1,340	6,580	NA	NA	NA	NA	NA	NA	NA	NA	4,180	5,340 J [3,390 J]	4,740 J
Manganese	mg/kg	955 J	3,320 J	NA	NA	NA	NA	NA	NA	NA	NA	5,030 J	300 [463]	446
Mercury	mg/kg	0.109	0.546	NA	NA	NA	NA	NA	NA	NA	NA	0.367	0.0530 U [0.102]	0.111
Nickel	mg/kg	47.5	1,010	NA	NA	NA	NA	NA	NA	NA	NA	271	71.8 J [71.1 J]	106 J
Potassium	mg/kg	526 U	944	NA	NA	NA	NA	NA	NA	NA	NA	1,150	748 [528 U]	651
Selenium	mg/kg	1.60 J	4.31 J	NA	NA	NA	NA	NA	NA	NA	NA	1.34 UJ*	2.00 [2.35]	1.95
Silver	mg/kg	0.526 UJ*	1.36 UJ*	NA	NA	NA	NA	NA	NA	NA	NA	1.34 UJ*	1.06 UJ* [1.06 UJ*]	1.07 UJ*
Sodium	mg/kg	526 U	543 U	NA	NA	NA	NA	NA	NA	NA	NA	537 U	530 U [528 U]	534 U
Sulfide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/kg	0.263 U	0.272 U	NA	NA	NA	NA	NA	NA	NA	NA	0.268 U	0.265 U [0.264 U]	0.876
Tin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	mg/kg	10.4	32.1	NA	NA	NA	NA	NA	NA	NA	NA	24.5	16.7 J [17.8 J]	17.2 J
Zinc	mg/kg	256	2,630	NA	NA	NA	NA	NA	NA	NA	NA	448	111 [119]	143

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TABLE A-4
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA INORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID: Sample Depth (ft bgs): Date Collected:	Units	RS-5-1 0 - 1 06/10/96	RS-5-2 0 - 1 06/10/96	RS-5-3 0 - 1 06/10/96	RS-5-4 0 - 1 06/10/96	RS-5-5 0 - 1 06/10/96	RS-5-6 0 - 1 06/10/96	RS-5-7 0 - 1 06/10/96	RS-5-8 0 - 1 06/10/96	RS-6 0 - 1 06/13/95	RS-7 0 - 1 06/13/95	RS-8 0 - 1 06/13/95	RS-09 0 - 1 08/19/05	RS-10 0 - 1 08/19/05	RS-11 0 - 1 08/19/05	RS-12 0 - 1 08/19/05
Inorganics																
Aluminum	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	7,160 J	1,280 J	5,510 J	NA	NA	NA	NA
Antimony	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	2.11 J	1.76 J	1.30 J	NA	NA	NA	NA
Arsenic	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	6.48 J	6.90 J	8.98 J	NA	NA	NA	NA
Barium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	85.7 J	50.3 J	64.9 J	NA	NA	NA	NA
Beryllium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	0.524 UJ	0.857 J	0.524 UJ	NA	NA	NA	NA
Cadmium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	1.19 J	0.0932 J	0.930 J	NA	NA	NA	NA
Calcium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	30,400 J	2,540 J	27,400 J	NA	NA	NA	NA
Chromium Total	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	205 J	66.3 J	141 J	NA	NA	NA	NA
Cobalt	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	36.5	9.53	17.0	NA	NA	NA	NA
Copper	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	75.6 J	55.6 J	64.3 J	NA	NA	NA	NA
Cyanide (total)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	0.270	0.480	0.310	NA	NA	NA	NA
Iron	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	50,100 J	79,100 J	28,000 J	NA	NA	NA	NA
Lead	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	98.1 J	6.91 J	72.2 J	NA	NA	NA	NA
Lead - Coarse Fraction	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Fine Fraction	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Total (Calculated by fine/coarse fraction)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	6,340 J	R	4,010 J	NA	NA	NA	NA
Manganese	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	2,020	551	2,060	1,560	449	3,650	2,310
Mercury	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	0.143	0.0535 U	0.0709	NA	NA	NA	NA
Nickel	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	198 J	49.1 J	152 J	NA	NA	NA	NA
Potassium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	1,210	535 U	706	NA	NA	NA	NA
Selenium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	1.05 U*	3.34	1.05 U*	NA	NA	NA	NA
Silver	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	1.05 UJ*	3.34 UJ*	1.05 UJ*	NA	NA	NA	NA
Sodium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	524 U	1,550	524 U	NA	NA	NA	NA
Sulfide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	0.262 UJ	0.268 U	0.262 U	NA	NA	NA	NA
Tin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	22.5 J	11.2 J	23.9 J	NA	NA	NA	NA
Zinc	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	306	42.1	566	NA	NA	NA	NA

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TABLE A-4
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA INORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID: Sample Depth (ft bgs): Date Collected:	Units	RS-13 0 - 1 08/19/05	RS-14 0 - 1 08/19/05	RS-15 0 - 1 08/19/05	RS-16 0 - 1 08/19/05	RS-17 0 - 1 08/19/05	RS-18 0 - 1 08/19/05	SB-01A 1 - 3 08/23/01	SB-01A 5 - 7 08/23/01	SB-304 0 - 1 02/08/95	SB-304 2 - 4 02/08/95	SB-304 6 - 8 02/08/95	SB-305 0 - 1 02/08/95	SB-305 2 - 4 02/08/95	SB-305 6 - 8 02/08/95
Inorganics															
Aluminum	mg/kg	NA	NA	NA	NA	NA	NA	2,490	2,120	7,440 J	8,870	3,100	4,470	11,700	3,570
Antimony	mg/kg	NA	NA	NA	NA	NA	NA	6.40 U	6.40 U	1.09 J	2.65 UJ	0.571 J	0.282 UJ	2.68 UJ*	1.39 UJ*
Arsenic	mg/kg	NA	NA	NA	NA	NA	NA	1.60	2.30	3.62	7.60	2.05	1.29	1.30	3.60
Barium	mg/kg	NA	NA	NA	NA	NA	NA	14.0 B	10.2 B	62.1	95.5	20.1	21.7	83.4	28.0
Beryllium	mg/kg	NA	NA	NA	NA	NA	NA	0.530 U	0.530 U	0.593	0.743	0.626 U	0.565 U	0.912	0.555 U
Cadmium	mg/kg	NA	NA	NA	NA	NA	NA	0.0510 B	0.0630 B	0.485	3.71	0.0595	0.0333	0.0740	0.0355
Calcium	mg/kg	NA	NA	NA	NA	NA	NA	10,800	4,160	21,800	11,100	2,710	2,130	55,300	15,900
Chromium Total	mg/kg	NA	NA	NA	NA	NA	NA	7.10	43.1	62.7	84.4	12.0	14.2	125	77.8
Cobalt	mg/kg	NA	NA	NA	NA	NA	NA	1.40 B	2.00 B	5.39 U	7.91	6.26 U	5.65 U	5.37 U	5.55 U
Copper	mg/kg	NA	NA	NA	NA	NA	NA	5.80	15.8	50.8	155	59.6	12.6	13.7	192
Cyanide (total)	mg/kg	NA	NA	NA	NA	NA	NA	0.530 U	0.530 U	0.270 UJ	0.380	0.310 U	0.280 U	0.270 UJ	0.280 UJ
Iron	mg/kg	NA	NA	NA	NA	NA	NA	6,810	19,900	34,800	87,400	15,200	14,800	22,700	26,800
Lead	mg/kg	NA	NA	NA	NA	NA	NA	4.00	3.10	39.0	279	37.1	3.59	18.3	23.5
Lead - Coarse Fraction	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Fine Fraction	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Total (Calculated by fine/coarse fraction)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	mg/kg	NA	NA	NA	NA	NA	NA	2,080	646	1,680	1,240	626 U	1,410	1,840	555 U
Manganese	mg/kg	2,360 [1,530]	2,380	329	632	5,470	25.0	289	192	6,140	9,190	1,040	232	6,820	3,830
Mercury	mg/kg	NA	NA	NA	NA	NA	NA	0.110 U	0.110 U	0.155	0.691	0.0626 UJ	0.0565 UJ	0.0537 UJ	0.0555 UJ
Nickel	mg/kg	NA	NA	NA	NA	NA	NA	5.40	38.0	14.2	35.7	5.07	7.51	3.54	88.2
Potassium	mg/kg	NA	NA	NA	NA	NA	NA	488 B	219 B	740	772	626 U	565 U	1,020	555 U
Selenium	mg/kg	NA	NA	NA	NA	NA	NA	0.530 U	0.700	NA	2.65 U*	0.313 U	0.282 U	2.68 U*	1.39 U*
Silver	mg/kg	NA	NA	NA	NA	NA	NA	1.10 U	1.10 U	NA	2.65 U*	0.313 U	0.282 U	2.68 U*	1.39 U*
Sodium	mg/kg	NA	NA	NA	NA	NA	NA	543	315 B	539 U	5,390	626 U	565 U	537 U	555 U
Sulfide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/kg	NA	NA	NA	NA	NA	NA	0.750 B	1.10 U	0.270 U	0.265 UJ	0.313 U	0.282 U	0.268 UJ	0.278 U
Tin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	mg/kg	NA	NA	NA	NA	NA	NA	5.20 B	5.20 B	17.0	16.0	9.71	8.87	20.0	9.00
Zinc	mg/kg	NA	NA	NA	NA	NA	NA	16.1	21.0	89.8	436	16.8	16.5	33.1	12.3

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TABLE A-4
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA INORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID: Sample Depth (ft bgs): Date Collected:	Units	SB-305 10 - 12 02/08/95	SB-312 8 - 10 06/06/95	SB-313 4 - 6 06/07/95	SB-319 14 - 16 06/13/95	SB-325 8 - 10 06/14/95	SB-336 0 - 2 06/23/95	SB-337 4 - 6 06/23/95	SB-338 2 - 4 06/26/95	SB-338 6 - 8 06/26/95	SB-339 2 - 4 06/26/95	SB-340 2 - 4 06/26/95	SB-341 2 - 4 06/26/95	SB-342 2 - 4 06/26/95
Inorganics														
Aluminum	mg/kg	NA	NA	NA	NA	NA	3,690	3,790	2,820	5,190	3,110 [2,760]	8,820	13,000	20,600
Antimony	mg/kg	0.366 J	NA	NA	NA	NA	0.802	0.949	0.540 UN	0.600 UN	0.530 BN [0.540 BN]	0.550 UN	0.760 UN	0.540 BN
Arsenic	mg/kg	3.91 J	NA	NA	NA	NA	2.37	2.72	1.50	2.90	7.40 [13.4]	2.40	6.20	1.30
Barium	mg/kg	61.9 J	NA	NA	NA	NA	33.5	30.1	11.3 B	39.4	24.4 [16.4 B]	72.4	98.1	280
Beryllium	mg/kg	0.687 U	NA	NA	NA	NA	0.530 U	0.530 U	0.0800 B	0.0700 B	0.0500 U [0.0500 U]	0.220 B	0.830	0.740
Cadmium	mg/kg	0.131	NA	NA	NA	NA	0.0990	0.0923	0.210 BN	0.490 N*	1.40 N* [2.80 N*]	0.430 N*	0.870 N*	0.790 N*
Calcium	mg/kg	NA	NA	NA	NA	NA	62,400	17,600	1,460	12,200	4,660 [5,070]	34,300	8,670	82,100
Chromium Total	mg/kg	14.8	NA	NA	NA	NA	21.2	32.5	9.30 N	54.4 N	18.0 N [31.2 N]	58.5 N	31.0 N	201 N
Cobalt	mg/kg	6.87 U	NA	NA	NA	NA	5.30 U	5.30 U	3.10 B	5.40 B	12.9 [24.2]	3.60 B	7.30 B	5.40
Copper	mg/kg	15.5	NA	NA	NA	NA	21.7	322	6.60 N*	96.8 N*	68.9 N* [80.4 N*]	27.2 N*	23.5 N*	8.60 N*
Cyanide (total)	mg/kg	0.340 U	NA	NA	NA	NA	0.230	0.160	0.150	0.120 U	0.170 [0.220]	0.110 U	0.730	0.190
Iron	mg/kg	NA	NA	NA	NA	NA	21,300	31,400	9,160	24,000	62,000 [125,000]	21,400	31,700	29,200
Lead	mg/kg	9.83 J	NA	NA	NA	NA	4.62	11.7	3.10 E	4.10 E	2.90 E [3.00 E]	2.10 E	18.8 E	6.70 E
Lead - Coarse Fraction	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Fine Fraction	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Total (Calculated by fine/coarse fraction)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	mg/kg	NA	NA	NA	NA	NA	11,200	1,170	524 B*	787 *	661 * [681 *]	1,750 *	4,770 *	1,940 *
Manganese	mg/kg	NA	NA	NA	NA	NA	1,180	1,430	287 *	2,780 *	460 * [772 *]	5,800 *	589 *	15,900 *
Mercury	mg/kg	0.0687 UJ	NA	NA	NA	NA	0.0530 U	0.0530 U	0.0500 U	0.0600 U	0.0500 U [0.0500 U]	0.0500 U	0.0800 U	0.0500 U
Nickel	mg/kg	12.4	NA	NA	NA	NA	15.5	57.3	8.00 E	9.70 E	25.3 E [42.0 E]	7.10 E	18.7 E	4.70 E
Potassium	mg/kg	NA	NA	NA	NA	NA	535	530 U	236 B	582 B	267 B [223 B]	933	1,030	2,660
Selenium	mg/kg	0.344 UJ	NA	NA	NA	NA	0.530 U*	0.530 U*	0.340	1.20	0.270 U [0.270 U]	2.00	0.450	6.50
Silver	mg/kg	0.344 U	NA	NA	NA	NA	0.530 U*	0.530 U*	0.210 U	0.700 B	0.210 B [0.270 B]	0.780 B	0.300 B	3.70
Sodium	mg/kg	NA	NA	NA	NA	NA	530 U	530 U	251 B	250 B	195 B [130 B]	460 B	672 B	622
Sulfide	mg/kg	69.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/kg	0.344 UJ	NA	NA	NA	NA	0.265 U	0.265 U	0.540 U	0.600 U	0.530 U [0.540 U]	0.550 U	0.760 U	0.540 U
Tin	mg/kg	137 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	mg/kg	19.9	NA	NA	NA	NA	10.6	13.0	5.00 B	13.7	10.1 [12.8]	19.3	13.8	36.2
Zinc	mg/kg	28.6 J	NA	NA	NA	NA	13.5	22.8	41.5 EN	14.8 EN	8.00 EN [7.70 EN]	7.00 EN	288 EN	14.8 EN

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TABLE A-4
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA INORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID: Sample Depth (ft bgs): Date Collected:	Units	SB-342 4 - 6 06/26/95	SB-343 2 - 4 06/26/95	SB-344 2 - 4 06/26/95	SB-345 2 - 4 06/27/95	SB-346 2 - 4 06/27/95	SB-347 2 - 4 06/27/95	SB-348 2 - 4 06/27/95	SB-349 2 - 4 06/27/95	SB-350 4 - 6 06/27/95	SB-351 0 - 2 06/27/95	SB-352 0 - 2 06/28/95	SB-353 0 - 2 06/28/95	SB-354 0 - 2 06/28/95	SB-355 2 - 4 06/28/95
Inorganics															
Aluminum	mg/kg	9,780	4,080	4,520	7,670	7,710	6,150	4,730	2,500	10,500	4,720	4,100	2,410	2,780	9,100
Antimony	mg/kg	0.530 BN	0.530 BN	0.620 UN	1.10 BN	0.550 BN	0.540 BN	0.610 UN	0.620 UN	0.560 UN	0.570 BN	1.10 BN	0.670 BN	0.550 BN	0.680 BN
Arsenic	mg/kg	1.50	5.10	1.90	5.60	3.20	6.60	2.50	1.80	3.80	3.30	5.80	18.4	3.50	2.90
Barium	mg/kg	95.0	25.2	23.7 B	68.4	61.1	50.4	25.5	14.9 B	76.1	34.4	51.3	12.6 B	23.5	83.1
Beryllium	mg/kg	0.280	0.0500 U	0.110 B	0.150 B	0.200 B	0.0500 U	0.120 B	0.0600 B	0.200 B	0.140 B	0.0600 U	0.0600 U	0.0500 U	0.160 B
Cadmium	mg/kg	0.390 N*	0.970 N*	0.290 BN*	0.930 N*	0.570 N*	0.780 N*	0.410 N*	0.280 BN*	0.670 N*	0.410 N*	1.40 N*	4.60 N*	0.500 N*	0.480 N*
Calcium	mg/kg	28,100	6,360	3,200	18,300	13,200	32,700	7,850	1,850 *	27,700	2,860	62,000	2,680 B	74,200	22,000
Chromium Total	mg/kg	79.0 N	31.9 N	12.6 N	68.7 N	40.9 N	57.7 N	36.3 N	8.90 N	78.4 N	6.80 N	43.8 N	142 N	12.6 N	66.3 N
Cobalt	mg/kg	2.30 B	11.1	4.80 B	5.20 B	4.50 B	7.10	4.70 B	4.90 B	7.70	5.00 B	10.1	36.2	3.70 B	9.20
Copper	mg/kg	22.0 N*	63.2 N*	13.0 N*	67.3 N*	31.6 N*	85.5 N*	14.7 N*	12.2 N*	63.4 N*	29.5 N*	74.2 N*	246 N*	33.4 N*	89.4 N*
Cyanide (total)	mg/kg	0.130	0.110 U	0.120 U	0.110 U	0.110 U	0.110 U	0.170	0.720	0.140	0.110 U	0.110 U	0.120	0.110 U	0.110 U
Iron	mg/kg	16,500	47,000	14,500	22,500	26,100	35,900	18,600	12,700	31,400	19,300	40,900	206,000	18,600	37,700
Lead	mg/kg	9.40 E	3.50 E	3.50 E	68.9	11.6 E	6.20 E	13.7 E	10.9 E	9.20 E	41.3 E	74.6 E	25.0 E	7.40 E	24.1 E
Lead - Coarse Fraction	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Fine Fraction	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Total (Calculated by fine/coarse fraction)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	mg/kg	1,010 *	913 *	692 *	820 *	1,290 *	2,160 *	1,150 *	519 B*	1,580 *	1,160 *	1,640 *	494 B*	5,880 *	2,340 *
Manganese	mg/kg	5,410 *	1,130 *	664 *	3,420 *	2,370 *	2,470 *	1,200 *	262 *	5,690 *	314 *	1,120 *	1,230 *	474 *	3,290 *
Mercury	mg/kg	0.0500 U	0.0500 U	0.0600 U	0.0800	0.0600 U	0.0500 U	0.0600 U	0.0600 U	0.0600 U	0.0600 U	0.300	0.0600 U	0.0500 U	0.0500 U
Nickel	mg/kg	4.90 E	24.6 E	6.40 E	21.7 E	11.3 E	20.8 E	10.4 E	7.20 E	13.3 E	7.10 E	23.3 E	113 E	10.4 E	16.2 E
Potassium	mg/kg	1,170	326 B	372 B	836	767	711	344 B	207 B	1,070	666	603	151 B	412 B	997
Selenium	mg/kg	2.20	0.270 U	0.310 U	1.10	0.990	0.580	0.420	0.320	1.90	0.280 U	0.280 U	0.280 U	0.270 U	1.40
Silver	mg/kg	1.00 B	0.360 B	0.250 B	0.780 B	0.460 B	0.520 B	0.440 B	0.250 B	1.00 B	0.230 B	0.660 B	0.400 B	0.220 B	0.540 B
Sodium	mg/kg	512 B	155 B	155 B	595	308 B	372 B	170 B	126 B	831	597	896	110 U	991	537 B
Sulfide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/kg	0.530 U	0.530 U	0.620 U	0.580 U	0.550 U	0.540 U	0.610 U	0.620 U	0.560 U	0.570 U	0.560 U	0.550 U	0.550 U	0.550 U
Tin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	mg/kg	17.6	13.9	12.1	17.6	14.6	17.4	8.00	4.30 B	24.7	10.3	10.6	15.2 B	7.30	20.8
Zinc	mg/kg	15.2 EN	10.9 EN	11.8 EN	45.3 EN	23.2 EN	15.0 EN	34.2 EN	70.8 EN	19.7 EN	31.6 EN	88.6 EN	26.3 EN	14.2 EN	37.0 EN

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TABLE A-4
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA INORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID: Sample Depth (ft bgs): Date Collected:	Units	SB-362 0 - 2 09/28/95	SB-362 4 - 6 09/28/95	SB-362 8 - 10 09/28/95	SB-363 0 - 2 09/28/95	SB-363 4 - 6 09/28/95	SB-363 8 - 10 09/28/95	SB-374 9.5 - 10.5 07/24/00	SB-375 6.5 - 7.5 07/24/00	SB-376 7 - 8 07/25/00	SB-377 0 - 0.5 07/25/00	SB-377 0.5 - 1 07/25/00	SB-378 0 - 0.5 07/25/00
Inorganics													
Aluminum	mg/kg	7,120 J	3,030 J	3,510 J	5,020 J	3,080 J	5,190 J	7,080	5,090 [4,160]	5,500	13,700	4,060 [11,400]	6,300
Antimony	mg/kg	9.16	4.27	0.378	17.4	22.3	0.540	8.20 UJ	8.30 UJ [8.10 UJ]	8.20 UJ	6.40 UJ	6.30 UJ [6.50 UJ]	6.60 UJ
Arsenic	mg/kg	3.62	23.6	3.70	4.67	4.11	1.05	3.20 J	3.90 [3.80 J]	3.20	4.90 J	3.40 J [4.40]	2.30 J
Barium	mg/kg	74.1	38.3	32.2	112	51.6	42.8	56.6	34.1 [31.9]	44.8	81.1	21.2 [83.0]	39.1
Beryllium	mg/kg	0.587 U	0.542 U	0.627 U	0.558 U	0.550 U	0.612 U	0.690 U	0.690 U [0.680 U]	0.680 U	0.530 U	0.520 U [0.540 U]	0.550 U
Cadmium	mg/kg	0.128	0.0336	0.125	0.379	0.119	0.0441	0.630 B	0.690 U [0.380 B]	0.680 U	0.640	1.00 [0.0700 B]	0.400 B
Calcium	mg/kg	35,400 J	15,600 J	8,650 J	49,000 J	73,600 J	12,800 J	36,000	37,400 [33,500]	31,600	16,500	17,100 [16,200]	14,300
Chromium Total	mg/kg	52.1	109	8.96	77.0	147	11.8	14.9	10.4 J [9.70]	11.5 J	24.6	31.9 [39.1 J]	31.5
Cobalt	mg/kg	7.05	12.6	6.27 U	6.96	5.50 U	6.12 U	5.50 B	4.50 B [3.90 B]	4.00 B	7.10	3.00 B [6.30]	2.80 B
Copper	mg/kg	204	661	6.19	202	44,700	7.76	10.4	7.10 [6.20]	7.60	32.6	27.6 [17.9]	10.4
Cyanide (total)	mg/kg	0.430	0.270 U	0.310 U	0.770	0.810	0.310 U	0.690 U	0.690 U [0.680 U]	0.680 U	0.530 U	0.520 U [0.540 U]	0.550 U
Iron	mg/kg	43,300	16,200	8,360	34,900	43,100	10,700	16,500	10,000 [10,200]	9,280	18,800	38,400 [18,200]	13,800
Lead	mg/kg	1,020	93.2	13.2	1,320	1,780	26.5	5.60	3.90 U [3.40]	4.30	11.7	2.60 [11.8]	5.90
Lead - Coarse Fraction	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Fine Fraction	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Total (Calculated by fine/coarse fraction)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	mg/kg	11,800 J	787 J	4,630 J	5,730 J	8,400 J	7,740 J	17,300	12,900 [11,800]	13,700	7,380	1,190 [5,330]	2,220
Manganese	mg/kg	771 J	1,240 J	130 J	1,270 J	452 J	210 J	450	476 J [360]	266 J	527	3,510 [1,690 J]	1,330
Mercury	mg/kg	0.101	0.0542 UJ	0.0627 UJ	0.0616 J	0.0550 UJ	0.0612 UJ	0.230 J	0.140 U [0.0340 BJ]	0.140 U	0.0280 BJ	0.100 UJ [0.110 U]	0.0330 BJ
Nickel	mg/kg	63.4	105	8.18	104	55.7	10.3	13.2	9.10 [8.40]	9.00	22.2	25.4 [17.9]	9.80
Potassium	mg/kg	1,610	542 U	627 U	901	550 U	809	1,100	907 [631 B]	942	2,210	381 B [1,450]	905
Selenium	mg/kg	0.587 UJ	2.17 UJ	0.314 UJ	0.558 UJ	0.550 UJ	0.306 UJ	0.760	0.530 B [0.600 B]	1.20	1.30	2.90 [0.680]	0.840
Silver	mg/kg	0.587 UJ	2.17 UJ	0.314 UJ	0.558 UJ	1.38	0.306 UJ	1.40 U	1.00 U [1.40 U]	1.40 U	1.10 U	0.220 B [1.10 U]	1.10 U
Sodium	mg/kg	587 U	542 U	627 U	558 U	550 U	612 U	687 U	692 U [678 U]	681 U	532 U	521 U [539 U]	548 U
Sulfide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/kg	0.294 U	0.271 U	0.314 U	0.279 U	0.275 U	0.306 U	1.40 U	1.40 U [0.700 B]	1.40 U	1.10 U	1.00 U [1.10 U]	1.10 U
Tin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	mg/kg	19.0	13.8	10.7	14.6	7.46	12.1	17.2	13.3 [11.4]	14.2	29.0	9.70 [25.6]	13.7
Zinc	mg/kg	58.6	22.1	17.2	108	5,560	17.5	35.9 J	31.5 J [23.7 J]	31.7 J	39.3 J	9.20 U [39.8 J]	28.2 J

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TABLE A-4
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA INORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID: Sample Depth (ft bgs): Date Collected:	Units	SB-378 0.5 - 1 07/25/00	SB-378 Floor 1 08/30/04	SB-378 Floor 2 - 3 09/22/04	SB-378 North Floor 1 08/30/04	SB-378 North Floor 2 - 3 09/22/04	SB-378 Northeast Wall 0 - 1 08/30/04	SB-378 Northeast Wall 0 - 1 09/13/04
Inorganics								
Aluminum	mg/kg	22,500	NA	NA	NA	NA	NA	NA
Antimony	mg/kg	1.80 BJ	NA	NA	NA	NA	NA	NA
Arsenic	mg/kg	1.90 J	NA	NA	NA	NA	NA	NA
Barium	mg/kg	138	NA	NA	NA	NA	NA	NA
Beryllium	mg/kg	0.540 U	NA	NA	NA	NA	NA	NA
Cadmium	mg/kg	1.20	NA	NA	NA	NA	NA	NA
Calcium	mg/kg	101,000	NA	NA	NA	NA	NA	NA
Chromium Total	mg/kg	245	NA	NA	NA	NA	NA	NA
Cobalt	mg/kg	3.20 B	NA	NA	NA	NA	NA	NA
Copper	mg/kg	11.2	NA	NA	NA	NA	NA	NA
Cyanide (total)	mg/kg	0.540 U	NA	NA	NA	NA	NA	NA
Iron	mg/kg	37,200	NA	NA	NA	NA	NA	NA
Lead	mg/kg	4.90	NA	NA	NA	NA	NA	NA
Lead - Coarse Fraction	mg/kg	NA	NA	NA	NA	NA	NA	NA
Lead - Fine Fraction	mg/kg	NA	NA	NA	NA	NA	NA	NA
Lead - Total (Calculated by fine/coarse fraction)	mg/kg	NA	NA	NA	NA	NA	NA	NA
Magnesium	mg/kg	1,780	NA	NA	NA	NA	NA	NA
Manganese	mg/kg	23,100	9,550	21,500	14,300	26,600	10,300	2,350
Mercury	mg/kg	0.110 UJ	NA	NA	NA	NA	NA	NA
Nickel	mg/kg	4.30	NA	NA	NA	NA	NA	NA
Potassium	mg/kg	2,440	NA	NA	NA	NA	NA	NA
Selenium	mg/kg	1.00 BG	NA	NA	NA	NA	NA	NA
Silver	mg/kg	0.540 BG	NA	NA	NA	NA	NA	NA
Sodium	mg/kg	1,640	NA	NA	NA	NA	NA	NA
Sulfide	mg/kg	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/kg	3.30 BG	NA	NA	NA	NA	NA	NA
Tin	mg/kg	NA	NA	NA	NA	NA	NA	NA
Vanadium	mg/kg	41.4	NA	NA	NA	NA	NA	NA
Zinc	mg/kg	8.20 U	NA	NA	NA	NA	NA	NA

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REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA INORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID: Sample Depth (ft bgs): Date Collected:	Units	SB-378 Northwest Wall 0 - 1 08/30/04	SB-378 South Floor 1 08/30/04	SB-378 South Floor 2 - 3 09/22/04	SB-378 South Wall 0 - 1 08/30/04	SB-378 South Wall 0 - 1 09/13/04	SB-378 Southwest Wall 0 - 1 08/30/04	SB-379 0 - 0.5 07/25/00
Inorganics								
Aluminum	mg/kg	NA	NA	NA	NA	NA	NA	9,030
Antimony	mg/kg	NA	NA	NA	NA	NA	NA	6.80 UJ
Arsenic	mg/kg	NA	NA	NA	NA	NA	NA	3.60 J
Barium	mg/kg	NA	NA	NA	NA	NA	NA	55.1
Beryllium	mg/kg	NA	NA	NA	NA	NA	NA	0.560 U
Cadmium	mg/kg	NA	NA	NA	NA	NA	NA	0.570
Calcium	mg/kg	NA	NA	NA	NA	NA	NA	17,300
Chromium Total	mg/kg	NA	NA	NA	NA	NA	NA	36.7
Cobalt	mg/kg	NA	NA	NA	NA	NA	NA	4.70 B
Copper	mg/kg	NA	NA	NA	NA	NA	NA	16.0
Cyanide (total)	mg/kg	NA	NA	NA	NA	NA	NA	0.560 U
Iron	mg/kg	NA	NA	NA	NA	NA	NA	17,500
Lead	mg/kg	NA	NA	NA	NA	NA	NA	9.60
Lead - Coarse Fraction	mg/kg	NA	NA	NA	NA	NA	NA	NA
Lead - Fine Fraction	mg/kg	NA	NA	NA	NA	NA	NA	NA
Lead - Total (Calculated by fine/coarse fraction)	mg/kg	NA	NA	NA	NA	NA	NA	NA
Magnesium	mg/kg	NA	NA	NA	NA	NA	NA	3,650
Manganese	mg/kg	299	9,070	13,600	16,000	1,830	342	1,350
Mercury	mg/kg	NA	NA	NA	NA	NA	NA	0.0540 BJ
Nickel	mg/kg	NA	NA	NA	NA	NA	NA	15.6
Potassium	mg/kg	NA	NA	NA	NA	NA	NA	1,180
Selenium	mg/kg	NA	NA	NA	NA	NA	NA	1.20
Silver	mg/kg	NA	NA	NA	NA	NA	NA	1.10 U
Sodium	mg/kg	NA	NA	NA	NA	NA	NA	563 U
Sulfide	mg/kg	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/kg	NA	NA	NA	NA	NA	NA	1.10 U
Tin	mg/kg	NA	NA	NA	NA	NA	NA	NA
Vanadium	mg/kg	NA	NA	NA	NA	NA	NA	19.9
Zinc	mg/kg	NA	NA	NA	NA	NA	NA	40.6 J

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REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA INORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID: Sample Depth (ft bgs): Date Collected:	Units	SB-379 0.5 - 1 07/25/00	SB-380 0 - 0.5 07/25/00	SB-380 0.5 - 1 07/25/00	SB-380 Northeast Wall 0 - 1 08/30/04	SB-380 Northwest Wall 0 - 1 08/30/04	SB-380 Northwest Wall 0 - 1 09/13/04	SB-380 South Floor 1 08/30/04	SB-380 South Floor 2 - 3 09/22/04
Inorganics									
Aluminum	mg/kg	4,390	12,100	25,200	NA	NA	NA	NA	NA
Antimony	mg/kg	6.10 UJ	6.60 UJ	1.70 BJ	NA	NA	NA	NA	NA
Arsenic	mg/kg	1.40 J	4.60 J	1.90 J	NA	NA	NA	NA	NA
Barium	mg/kg	27.1	71.1	136	NA	NA	NA	NA	NA
Beryllium	mg/kg	0.510 U	0.550 U	0.520 U	NA	NA	NA	NA	NA
Cadmium	mg/kg	0.310 B	0.660	1.30	NA	NA	NA	NA	NA
Calcium	mg/kg	14,300	16,400	100,000	NA	NA	NA	NA	NA
Chromium Total	mg/kg	31.5	42.3	184	NA	NA	NA	NA	NA
Cobalt	mg/kg	1.30 B	5.50	3.30 B	NA	NA	NA	NA	NA
Copper	mg/kg	5.60	18.4	30.0	NA	NA	NA	NA	NA
Cyanide (total)	mg/kg	0.510 U	0.550 U	0.520 U	NA	NA	NA	NA	NA
Iron	mg/kg	9,800	19,500	40,200	NA	NA	NA	NA	NA
Lead	mg/kg	3.50	16.5	24.4	NA	NA	NA	NA	NA
Lead - Coarse Fraction	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Fine Fraction	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Total (Calculated by fine/coarse fraction)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	mg/kg	588	4,580	1,790	NA	NA	NA	NA	NA
Manganese	mg/kg	2,250	1,950	24,500	688	3,470	848	12,900 [11,100]	17,200
Mercury	mg/kg	0.100 UJ	0.0560 BJ	0.0260 BJ	NA	NA	NA	NA	NA
Nickel	mg/kg	3.50 B	18.9	6.90 U	NA	NA	NA	NA	NA
Potassium	mg/kg	374 B	1,770	2,850	NA	NA	NA	NA	NA
Selenium	mg/kg	0.560	1.20	1.30 BG	NA	NA	NA	NA	NA
Silver	mg/kg	0.180 B	1.10 U	0.400 B	NA	NA	NA	NA	NA
Sodium	mg/kg	507 U	553 U	2,380	NA	NA	NA	NA	NA
Sulfide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/kg	1.00 U	1.10 U	10.4 U	NA	NA	NA	NA	NA
Tin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	mg/kg	8.90	23.2	25.6	NA	NA	NA	NA	NA
Zinc	mg/kg	6.80 U	43.9 J	18.5 J	NA	NA	NA	NA	NA

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SOIL ANALYTICAL DATA INORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID: Sample Depth (ft bgs): Date Collected:	Units	SB-380 South Wall 0 - 1 08/30/04	SB-380 South Wall 0 - 1 09/13/04	SB-380 Southwest Wall 0 - 1 08/30/04	SB-381 0 - 0.5 07/25/00	SB-381 0.5 - 1 07/25/00	SB-381 Floor 1 08/30/04	SB-381 Floor 2 09/13/04	SB-381 Northeast Wall 0 - 1 08/30/04
Inorganics									
Aluminum	mg/kg	NA	NA	NA	14,700	27,900	NA	NA	NA
Antimony	mg/kg	NA	NA	NA	0.650 BJ	1.80 BJ	NA	NA	NA
Arsenic	mg/kg	NA	NA	NA	4.70 J	2.40 J	NA	NA	NA
Barium	mg/kg	NA	NA	NA	81.7	199	NA	NA	NA
Beryllium	mg/kg	NA	NA	NA	0.550 U	0.510 U	NA	NA	NA
Cadmium	mg/kg	NA	NA	NA	0.710	1.20	NA	NA	NA
Calcium	mg/kg	NA	NA	NA	24,100	163,000	NA	NA	NA
Chromium Total	mg/kg	NA	NA	NA	58.9	324	NA	NA	NA
Cobalt	mg/kg	NA	NA	NA	5.60	2.80 B	NA	NA	NA
Copper	mg/kg	NA	NA	NA	18.7	13.4	NA	NA	NA
Cyanide (total)	mg/kg	NA	NA	NA	0.550 U	0.510 U	NA	NA	NA
Iron	mg/kg	NA	NA	NA	19,400	32,800	NA	NA	NA
Lead	mg/kg	NA	NA	NA	13.8	44.0	NA	NA	NA
Lead - Coarse Fraction	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Fine Fraction	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Total (Calculated by fine/coarse fraction)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	mg/kg	NA	NA	NA	5,300	1,990	NA	NA	NA
Manganese	mg/kg	3,990	2,710	586	3,040	32,600	4,000	6,200	5,830
Mercury	mg/kg	NA	NA	NA	0.0390 BJ	0.0110 BJ	NA	NA	NA
Nickel	mg/kg	NA	NA	NA	18.3	4.10 U	NA	NA	NA
Potassium	mg/kg	NA	NA	NA	2,310	2,760	NA	NA	NA
Selenium	mg/kg	NA	NA	NA	1.60	2.10 BG	NA	NA	NA
Silver	mg/kg	NA	NA	NA	1.10 U	1.30 B	NA	NA	NA
Sodium	mg/kg	NA	NA	NA	550 U	547 U	NA	NA	NA
Sulfide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/kg	NA	NA	NA	1.10 U	10.2 U	NA	NA	NA
Tin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	mg/kg	NA	NA	NA	28.6	37.0	NA	NA	NA
Zinc	mg/kg	NA	NA	NA	42.3 J	14.5 U	NA	NA	NA

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REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA INORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID: Sample Depth (ft bgs): Date Collected:	Units	SB-381 Northeast Wall 0 - 1 09/13/04	SB-381 Northwest Wall 0 - 1 08/30/04	SB-381 South Floor 1 08/30/04	SB-381 Southwest Wall 0 - 1 08/30/04	SB-382 0 - 0.5 07/25/00	SB-382 0.5 - 1 07/25/00	SB-383 0 - 0.5 07/25/00	SB-383 0.5 - 1 07/25/00	SB-384 0 - 0.5 07/25/00
Inorganics										
Aluminum	mg/kg	NA	NA	NA	NA	9,170	10,500	3,350	3,730	8,770
Antimony	mg/kg	NA	NA	NA	NA	6.20 UJ	0.920 BJ	6.30 UJ	6.10 UJ	6.40 UJ
Arsenic	mg/kg	NA	NA	NA	NA	5.90 J	6.10 J	1.70 J	1.30 J	4.50 J
Barium	mg/kg	NA	NA	NA	NA	70.2	83.0	14.7 B	9.60 B	50.7
Beryllium	mg/kg	NA	NA	NA	NA	0.520 U	0.550 U	0.520 U	0.510 U	0.530 U
Cadmium	mg/kg	NA	NA	NA	NA	0.870	1.20	0.290 B	0.140 B	0.550
Calcium	mg/kg	NA	NA	NA	NA	26,900	33,400	10,500	2,490	13,000
Chromium Total	mg/kg	NA	NA	NA	NA	42.7	65.0	8.40	3.90	24.7
Cobalt	mg/kg	NA	NA	NA	NA	4.90 B	5.10 B	1.30 B	1.10 B	4.00 B
Copper	mg/kg	NA	NA	NA	NA	20.0	32.1	8.80	3.00 U	15.4
Cyanide (total)	mg/kg	NA	NA	NA	NA	0.520 U	0.550 U	0.520 U	0.510 U	0.530 U
Iron	mg/kg	NA	NA	NA	NA	20,300	26,500	7,030	4,710	13,900
Lead	mg/kg	NA	NA	NA	NA	37.7	46.9	15.2	2.60	15.5
Lead - Coarse Fraction	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Fine Fraction	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Total (Calculated by fine/coarse fraction)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	mg/kg	NA	NA	NA	NA	5,780	5,330	1,130	847	4,320
Manganese	mg/kg	1,130	547 [684]	559	2,360	2,190	3,450	225	156	738
Mercury	mg/kg	NA	NA	NA	NA	0.0580 BJ	0.0800 BJ	0.0230 BJ	0.0110 BJ	0.0510 BJ
Nickel	mg/kg	NA	NA	NA	NA	16.8	21.0	5.10 U	4.10 U	13.7
Potassium	mg/kg	NA	NA	NA	NA	1,490	1,400	368 B	356 B	1,550
Selenium	mg/kg	NA	NA	NA	NA	1.50	2.00	0.350 B	0.510 U	0.980
Silver	mg/kg	NA	NA	NA	NA	1.00 U	0.330 B	1.00 U	1.00 U	1.10 U
Sodium	mg/kg	NA	NA	NA	NA	516 U	552 U	521 U	510 U	532 U
Sulfide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/kg	NA	NA	NA	NA	1.00 U	1.10 U	1.00 U	1.00 U	1.10 U
Tin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	mg/kg	NA	NA	NA	NA	20.1	21.1	4.80 B	4.40 B	17.8
Zinc	mg/kg	NA	NA	NA	NA	73.1 J	78.2 J	27.9 J	7.50 U	46.8 J

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TABLE A-4
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA INORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID: Sample Depth (ft bgs): Date Collected:	Units	SB-384 0.5 - 1 07/25/00	SB-385 0 - 0.5 07/25/00	SB-385 0.5 - 1 07/25/00	SB-386 0 - 0.5 07/25/00	SB-386 0.5 - 1 07/25/00	SB-387 0 - 0.5 07/25/00	SB-387 0.5 - 1 07/25/00	SB-388 0 - 0.5 07/25/00	SB-388 0.5 - 1 07/25/00	SB-389 0 - 0.5 08/11/00	SB-390 0 - 0.5 08/11/00	SB-391 0 - 0.5 08/11/00	SB-392 0 - 0.5 08/11/00	SB-393 0 - 0.5 08/11/00
Inorganics															
Aluminum	mg/kg	6,030	4,740	4,040	3,710	3,490	4,430	3,530	7,610	3,670	8,760	7,680	6,200	6,930	10,700
Antimony	mg/kg	6.30 UJ	6.30 UJ	6.40 UJ	6.20 UJ	6.20 UJ	6.20 UJ	6.60 UJ	6.30 UJ	6.60 UJ	7.00 UJ	10.5 UJ	8.50 UJ	8.10 UJ	0.830 JB
Arsenic	mg/kg	3.20 J	4.20 J	2.50	3.20	2.50	3.80	2.30	6.10	5.70	6.00	4.20	3.50	3.40	3.60
Barium	mg/kg	39.6	38.3	52.3	37.2	22.1	39.9	25.7	76.3	37.9	57.5	55.1	51.1	50.5	95.6
Beryllium	mg/kg	0.520 U	0.530 U	0.540 U	0.0600 B	0.520 U	0.520 U	0.550 U	0.520 U	0.550 U	0.580 U	0.870 U	0.710 U	0.680 U	0.670 U
Cadmium	mg/kg	0.630	0.530	0.580	0.520 U	0.520 U	0.340 B	0.550 U	0.210 B	0.120 B	0.580 U	0.870 U	0.140 B	0.680 U	0.670 U
Calcium	mg/kg	108,000	15,900	55,300	13,000	16,600	13,300	10,500	30,400	33,100	13,000	7,070	5,030	47,400	72,800
Chromium Total	mg/kg	42.6	15.4	12.2 J	25.1 J	7.70 J	21.6 J	43.9 J	65.7 J	22.7 J	44.5	12.9	11.6	13.1	184
Cobalt	mg/kg	2.40 B	3.20 B	2.20 B	2.20 B	2.20 B	3.10 B	1.70 B	3.80 B	2.90 B	3.20 B	3.40 B	3.30 B	4.20 B	3.10 B
Copper	mg/kg	16.0	18.0	10.6	13.5	5.60	28.7	16.7	28.2	15.3	30.0	12.7	13.4	10.7	501
Cyanide (total)	mg/kg	0.520 U	0.530 U	0.540 U	0.520 U	0.520 U	0.520 U	0.550 U	0.520 U	0.550 U	0.330 B	0.870 U	0.710 U	0.680 U	2.70
Iron	mg/kg	15,300	10,900	6,980	10,500	5,930	15,000	12,400	20,900	9,800	27,000	9,340	8,210	10,600	29,100
Lead	mg/kg	14.5	26.3	120	45.1	8.50	61.5	9.00	27.4	11.3	20.9	11.9	10.4	9.30	64.5
Lead - Coarse Fraction	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Fine Fraction	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Total (Calculated by fine/coarse fraction)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	mg/kg	3,680	4,900	10,900	2,270	4,420	3,530	1,040	5,800	8,370	1,670	3,170	2,690	12,500	3,170
Manganese	mg/kg	2,070	276	384 J	1,180 J	173 J	686 J	2,200 J	2,940 J	909 J	1,930 J	151 J	125 J	208 J	7,840 J
Mercury	mg/kg	0.0360 BJ	0.0640 BJ	0.110 U	0.160	0.100 U	0.100 U	0.110 U	0.100 U	0.110 U	0.0170 B	0.0370 B	0.0340 B	0.0330 B	0.0170 B
Nickel	mg/kg	16.4	11.1 U	7.40	7.70	6.50	13.0	14.1	14.0	8.40	14.5	10.3	10.0	11.9	9.40
Potassium	mg/kg	742	912	646	515 B	633	686	392 B	1,120	515 B	1,230	1,100	1,010	1,290	1,160
Selenium	mg/kg	0.880	0.680	0.610	0.330 B	0.360 B	0.510 B	0.490 B	0.970	0.550 U	2.10	1.10	0.610 B	0.630 B	1.10 BG
Silver	mg/kg	0.180 B	1.10 U	1.10 U	1.00 U	1.00 U	1.00 U	1.10 U	0.190 B	1.10 U	1.20 U	1.70 U	1.40 U	1.40 U	0.550 BG
Sodium	mg/kg	524 U	525 U	536 U	516 U	516 U	516 U	550 U	521 U	550 U	149 B	134 B	709 U	332 B	548 B
Sulfide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/kg	1.00 U	1.10 U	0.590 B	1.00 U	1.00 U	1.00 U	1.10 U	0.550 B	1.10 U	3.60	0.910 B	1.40 U	1.10 B	2.30 BG
Tin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	mg/kg	12.8	11.5	9.30	9.50	9.00	10.5	9.40	17.2	9.00	14.3	16.9	14.2	17.5	26.1
Zinc	mg/kg	26.4 J	56.0 J	50.1 J	57.9 J	16.2 J	101 J	12.0	54.1 J	37.5 J	41.9 J	35.4 J	33.7 J	27.9 J	103 J

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TABLE A-4
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA INORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID: Sample Depth (ft bgs): Date Collected:	Units	SB-394 0 - 0.5 08/11/00	SB-395 0 - 0.5 08/11/00	SB-396 0 - 0.5 08/11/00	SB-397 0 - 0.5 08/11/00	SB-398 0 - 0.5 08/11/00	SB-399 0 - 0.5 08/11/00	SB-400 0 - 0.5 08/11/00	SB-406 0 - 0.5 08/11/00	SB-412 0 - 0.5 08/11/00	SB-418 0 - 0.5 08/11/00	SB-419 0 - 0.5 08/18/00	SB-420 0 - 0.5 08/18/00	SB-421 0 - 0.67 08/18/00	SB-422 0 - 0.5 08/18/00
Inorganics															
Aluminum	mg/kg	5,940	7,810	11,500	8,550	5,580	6,070	6,350	7,940	13,400	10,400 [8,960]	NA	NA	NA	NA
Antimony	mg/kg	8.10 UJ	8.10 UJ	11.0 UJ	8.40 UJ	7.30 UJ	7.50 UJ	9.60 UJ	0.600 JB	10.6 UJ	7.90 UJ [8.30 UJ]	NA	NA	NA	NA
Arsenic	mg/kg	2.60	7.50	6.00	5.10	5.00	3.70	4.60	3.90	6.80	6.80 [7.50]	NA	NA	NA	NA
Barium	mg/kg	41.7	62.0	61.9	45.0	37.6	55.4	53.4	56.4	89.9	69.4 [67.2]	NA	NA	NA	NA
Beryllium	mg/kg	0.670 U	0.670 U	0.920 U	0.700 U	0.610 U	0.620 U	0.800 U	0.540 U	0.880 U	0.660 U [0.690 U]	NA	NA	NA	NA
Cadmium	mg/kg	0.670 U	0.670 U	0.920 U	0.700 U	0.610 U	0.620 U	0.800 U	0.540 U	0.280 B	0.220 B [0.200 B]	NA	NA	NA	NA
Calcium	mg/kg	2,880	17,200	16,100	12,300	2,160	23,000	12,500	35,500	25,900 J	24,700 J [22,900 J]	NA	NA	NA	NA
Chromium Total	mg/kg	10.0	14.1	28.2	17.6	10.1	83.7	12.6	32.9	24.4	17.9 [15.9]	NA	NA	NA	NA
Cobalt	mg/kg	3.00 B	4.90 B	4.40 B	3.70 B	3.80 B	3.00 B	4.60 B	4.00 B	7.80 B	5.90 B [5.60 B]	NA	NA	NA	NA
Copper	mg/kg	6.20	11.7	28.3	12.6	365	15.1	12.6	25.8	21.9	14.5 [13.6]	NA	NA	NA	NA
Cyanide (total)	mg/kg	0.670 U	0.670 U	0.920 U	0.700 U	0.610 U	0.620 U	0.800 U	0.350 B	0.880 U	0.660 U [0.690 U]	NA	NA	NA	NA
Iron	mg/kg	8,390	13,200	28,000	17,900	10,900	18,600	10,800	22,900	21,700	15,400 [14,800]	NA	NA	NA	NA
Lead	mg/kg	7.60	12.2	27.8	13.0	20.9	37.2	12.1	30.9	17.4	12.8 [12.3]	NA	NA	NA	NA
Lead - Coarse Fraction	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Fine Fraction	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Total (Calculated by fine/coarse fraction)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	mg/kg	1,640	7,820	5,940	5,310	1,600	2,020	5,420	11,400	13,200 J	11,800 J [10,600 J]	NA	NA	NA	NA
Manganese	mg/kg	61.1 J	392 J	404 J	281 J	217 J	3,550 J	220 J	678 J	341 J	373 J [419 J]	NA	NA	NA	NA
Mercury	mg/kg	0.0150 B	0.0370 B	0.180 U	0.140 U	0.0190 B	0.0160 B	0.0510 B	0.110 U	0.0660 B	0.0480 B [0.0410 B]	NA	NA	NA	NA
Nickel	mg/kg	7.70	11.7	20.1	13.7	16.4	9.90	11.5	15.5	21.3	15.0 [14.9]	NA	NA	NA	NA
Potassium	mg/kg	708	1,360	1,210	938	427 B	519 B	885	1,210	2,290	1,780 [1,350]	NA	NA	NA	NA
Selenium	mg/kg	0.670 U	0.740	1.90	0.910	0.640	1.80	0.740 B	1.10	0.880 U	0.660 U [0.690 U]	NA	NA	NA	NA
Silver	mg/kg	1.30 U	1.30 U	1.80 U	1.40 U	0.370 B	1.20 U	1.60 U	1.10 U	1.80 U	1.30 U [1.40 U]	NA	NA	NA	NA
Sodium	mg/kg	179 B	672 U	426 B	316 B	608 U	111 B	177 B	300 B	884 U	656 U [695 U]	NA	NA	NA	NA
Sulfide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/kg	1.30 U	1.30 U	1.90	1.60	1.20 U	5.90	1.40 B	1.70	2.00	1.00 B [1.50]	NA	NA	NA	NA
Tin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	mg/kg	13.9	18.0	13.0	13.1	13.4	15.3	15.1	12.3	28.3	22.8 [20.6]	NA	NA	NA	NA
Zinc	mg/kg	20.3 J	38.8 J	432 J	84.1 J	43.0 J	34.6 J	37.0 J	403 J	114 J	55.6 J [53.0 J]	NA	NA	NA	NA

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TABLE A-4
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA INORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID: Sample Depth (ft bgs): Date Collected:	Units	SB-423 0 - 0.67 08/18/00	SB-424 0 - 0.5 08/18/00	TP1 0 - 4 05/22/98	TP1 4 - 8 05/22/98	TP2 0 - 4 05/22/98	TP2 4 - 8 05/22/98	TP-2 8 - 8.5 03/23/95	TP3 0 - 4 05/22/98	TP3 4 - 8 05/22/98	TP4 0 - 4 05/22/98	TP4 4 - 8 05/22/98	TP5 0 - 4 05/22/98	TP5 4 - 8 05/22/98	TP6 0 - 4 05/22/98	TP6 4 - 8 05/22/98
Inorganics																
Aluminum	mg/kg	NA	NA	4,910	5,490	6,320	4,860	6,250 J	4,160	4,380	4,390	4,630	4,090	4,380	6,600	5,150
Antimony	mg/kg	NA	NA	6.00 U	6.00 U	6.00 U	6.00 U	1.57 U	6.00 U	6.00 U	6.00 U	6.00 U	6.00 U	6.00 U	6.00 U	6.00 U
Arsenic	mg/kg	NA	NA	2.10	2.20	2.70	2.80	30.0	2.10	2.00	2.10	2.30	2.00	2.40	3.00	2.40
Barium	mg/kg	NA	NA	30.0	24.5	38.8	43.2	290 J	21.6	21.9	30.1	28.3	30.7	30.0	42.7	32.8
Beryllium	mg/kg	NA	NA	0.500 U	0.500 U	0.500 U	0.500 U	1.20	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U
Cadmium	mg/kg	NA	NA	0.500 U	0.500 U	0.500 U	0.500 U	2.60	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U
Calcium	mg/kg	NA	NA	5,540	4,810	7,230	2,650	29,000	3,150	3,410	2,170	2,980	2,260	3,220	3,800	2,230
Chromium Total	mg/kg	NA	NA	16.6	13.9	16.2	13.4	121	9.90	9.90	13.1	13.0	12.6	14.5	17.7	12.5
Cobalt	mg/kg	NA	NA	5.00 U	5.00 U	5.00 U	5.00 U	13.5	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
Copper	mg/kg	NA	NA	16.1 L	9.00	10.1	9.00	6,250 J	7.60	7.60	10.2	8.10	14.2	9.40	14.7	8.20
Cyanide (total)	mg/kg	NA	NA	0.500 U	0.500 U	0.500 U	0.500 U	NA	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U
Iron	mg/kg	NA	NA	15,400 L	13,200	15,900	14,400	62,000	11,100	11,100	12,900	13,500	13,600	13,800	18,100	13,100
Lead	mg/kg	NA	NA	11.6	10.5	6.70	8.10	532	8.40	9.80	11.1	6.10	10.7	11.4	13.7	6.40
Lead - Coarse Fraction	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Fine Fraction	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Total (Calculated by fine/coarse fraction)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	mg/kg	NA	NA	1,610 L	1,470	3,160	1,590	2,260	1,160	1,180	1,320	1,380	1,260	1,390	1,940	1,520
Manganese	mg/kg	NA	NA	1,190 L	272	316	247	2,360 J	220	226	280	198	250	207	410	248
Mercury	mg/kg	NA	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.753	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U
Nickel	mg/kg	NA	NA	13.6	10.2	10.6	8.90	185	7.20	6.90	8.70	8.50	8.70	10.0	10.6	7.40
Potassium	mg/kg	NA	NA	NA	500 U	535	500 U	708	500 U	500 U	500 U	500 U	500 U	500 U	500 U	500 U
Selenium	mg/kg	NA	NA	0.500 U	0.720	1.00	0.500 U	3.15 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U
Silver	mg/kg	NA	NA	1.00 U	1.00 U	1.00 U	1.00 U	7.69	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
Sodium	mg/kg	NA	NA	500 U	500 U	500 U	500 U	629 U	500 U	500 U	500 U	500 U	500 U	500 U	500 U	500 U
Sulfide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/kg	NA	NA	1.00 U	1.00 U	1.00 U	1.00 U	0.365	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
Tin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	mg/kg	NA	NA	6.20	5.90	8.30	6.80	27.2	5.50	5.40	6.60	6.80	5.40	6.30	7.90	7.40
Zinc	mg/kg	NA	NA	231 L	118	145	104	1,440 J	112	130	263	138	409	505	351	164

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TABLE A-4
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA INORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID: / Sample Depth (ft bgs): / Date Collected:	Units	TP-6 8 - 8.5 03/22/95	TP7 0 - 4 05/22/98	TP-12 7.8 - 8 03/23/95	US-1 0 - 1 06/12/95	US-2 0 - 1 06/12/95	US-3 0 - 1 06/12/95	US-4 0 - 1 06/12/95	US-5 0 - 1 06/12/95	US-5-1 0 - 1 06/10/96	US-5-2 0 - 1 06/10/96	US-5-3 0 - 1 06/10/96	US-5-4 0 - 1 06/10/96	US-5-5 0 - 1 06/10/96	US-5-6 0 - 1 06/10/96
Inorganics															
Aluminum	mg/kg	4,920 J	7,100	3,090 J	5,040	3,880	2,930	1,440	2,060	NA	NA	NA	NA	NA	NA
Antimony	mg/kg	5.82	6.00 U	224	0.405 J	0.500 J	0.556 J	0.721 J	0.713 J	NA	NA	NA	NA	NA	NA
Arsenic	mg/kg	15.7	3.70	28.9	4.54	3.70	2.82	1.94	3.07	NA	NA	NA	NA	NA	NA
Barium	mg/kg	141 J	44.1	204 J	46.7	40.6	24.3	21.1	30.4	NA	NA	NA	NA	NA	NA
Beryllium	mg/kg	0.987	0.500 U	0.828	0.629 U	0.538 U	0.526 U	0.528 U	0.519 U	NA	NA	NA	NA	NA	NA
Cadmium	mg/kg	1.96	0.500 U	1.38	0.157	0.141	0.100	0.270	0.330	NA	NA	NA	NA	NA	NA
Calcium	mg/kg	29,300	4,460	9,760	13,300 J	12,100 J	21,900 J	275,000 J	20,300 J	NA	NA	NA	NA	NA	NA
Chromium Total	mg/kg	216	28.7	321	49.5	18.6	15.3	30.0	30.6	NA	NA	NA	NA	NA	NA
Cobalt	mg/kg	18.8	5.00 U	27.7	6.29 U	5.38 U	5.26 U	5.28 U	5.19 U	NA	NA	NA	NA	NA	NA
Copper	mg/kg	232 J	25.8	901 J	20.3	14.2	18.6	18.7	23.6	NA	NA	NA	NA	NA	NA
Cyanide (total)	mg/kg	NA	0.500 U	NA	0.310 U	0.270 U	0.260 U	0.260 U	0.260 U	NA	NA	NA	NA	NA	NA
Iron	mg/kg	15,600	23,400	26,700	9,970	11,600	11,300	16,900	19,800	NA	NA	NA	NA	NA	NA
Lead	mg/kg	3,070	15.2	1,810	16.4 J	14.7 J	13.0 J	33.5 J	47.6 J	NA	NA	NA	NA	NA	NA
Lead - Coarse Fraction	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Fine Fraction	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Total (Calculated by fine/coarse fraction)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	mg/kg	6,270	2,160	1,150	16,300	10,600	8,680	7,090	5,470	NA	NA	NA	NA	NA	NA
Manganese	mg/kg	2,810 J	424	3,670 J	358 J	399 J	375 J	267 J	401 J	NA	NA	NA	NA	NA	NA
Mercury	mg/kg	0.331	0.100 U	0.968	0.0629 U	0.0538 U	0.0526 U	0.0528 U	0.0519 U	NA	NA	NA	NA	NA	NA
Nickel	mg/kg	389	17.3	959	11.9	13.1	15.1	47.5	124	NA	NA	NA	NA	NA	NA
Potassium	mg/kg	795	500 U	591 U	871	600	543	528 U	519 U	NA	NA	NA	NA	NA	NA
Selenium	mg/kg	3.23	0.500 U	5.91 U	0.314 UJ	0.269 UJ	0.263 UJ	0.528 UJ*	0.260 UJ	NA	NA	NA	NA	NA	NA
Silver	mg/kg	3.08 U	1.00 U	5.91 U	0.629 UJ*	0.538 UJ*	0.526 UJ*	0.264 UJ	0.260 UJ	NA	NA	NA	NA	NA	NA
Sodium	mg/kg	617 U	500 U	591 U	629 U	538 U	526 U	528 U	526	NA	NA	NA	NA	NA	NA
Sulfide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/kg	0.308 UJ	1.00 U	0.296 UJ	0.314 UJ	0.269 UJ	0.263 UJ	0.264 UJ	0.260 UJ	NA	NA	NA	NA	NA	NA
Tin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	mg/kg	29.2	8.30	24.8	16.0	13.1	10.7	5.01	5.71	NA	NA	NA	NA	NA	NA
Zinc	mg/kg	361 J	555	212 J	49.1	38.7	24.7	54.3	58.1	NA	NA	NA	NA	NA	NA

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TABLE A-4
REMEDIAL INVESTIGATION
SOIL ANALYTICAL DATA INORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID: Sample Depth (ft bgs): Date Collected:	Units	US-5-7 0 - 1 06/10/96	US-5-8 0 - 1 06/10/96	US-6 0 - 1 06/12/95	US-7 0 - 1 06/12/95	US-8 0 - 1 06/12/95	VE-1 0.75 - 1.58 08/10/01	VE-2 0.92 - 1.67 08/10/01	WMB-1 3 - 3.5 01/22/97	WMB-2 3 - 3.5 01/22/97	WMB-3 5 - 5.5 01/22/97	WMB-4 0.5 - 1 01/22/97	WMB-5 0.5 - 1 01/22/97	WMB-6 4 - 4.5 01/22/97
Inorganics														
Aluminum	mg/kg	NA	NA	2,680	1,250 J	2,730 J	1,200	5,400	5,120	8,300	4,480	14,700	9,990	7,200
Antimony	mg/kg	NA	NA	0.624 J	0.319	0.574	0.500 UJ	1.00 J	0.295 U	1.46	0.303 U	0.536	0.346 U	0.340 U
Arsenic	mg/kg	NA	NA	9.59	2.17	2.41	1.60	4.70	2.25	3.68 Wa	1.68 Wa	5.80	6.90	4.83
Barium	mg/kg	NA	NA	35.3	8.92	27.7	9.20	67.0	37.9	145	28.8	98.8	69.9	58.7
Beryllium	mg/kg	NA	NA	0.516 U	0.513 U	0.507 U	0.200 UJ	0.200 UJ	0.590 U	0.707 U	0.606 U	0.717 U	0.692 U	0.681 U
Cadmium	mg/kg	NA	NA	0.225	0.418	0.288	0.100 U	0.510	0.0743 Wa	0.509 Wb	0.0787 Wb	0.341	0.305	0.123
Calcium	mg/kg	NA	NA	19,400 J	34,100 J	11,900 J	192,000	16,000	5,750	85,600	7,250	18,000	17,300	51,900
Chromium Total	mg/kg	NA	NA	38.7	8.87	31.8	4.90	28.0	7.96	49.5	7.73	22.6	16.4	11.3
Cobalt	mg/kg	NA	NA	5.16 U	5.13 U	5.07 U	120	94.0	5.90 U	7.07 U	6.06 U	7.17 U	6.92 U	7.82
Copper	mg/kg	NA	NA	28.2	11.0	22.9	6.70 J	74.0 J	5.84	104	6.16	18.0	13.4	6.28
Cyanide (total)	mg/kg	NA	NA	0.260 U	0.260 U	0.250 U	0.500 U	0.500 U	0.180 U	0.210 U	0.180 U	0.220 U	0.210 U	0.200 U
Iron	mg/kg	NA	NA	18,800	6,570	19,600	6,900	16,900	6,280	44,600	6,800	14,300	12,000	11,900
Lead	mg/kg	NA	NA	49.2 J	12.6 J	40.8 J	10.0	120	3.66	233	4.11	13.4	12.4	4.43
Lead - Coarse Fraction	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Fine Fraction	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Total (Calculated by fine/coarse fraction)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	mg/kg	NA	NA	5,430	7,420	12,600	3,400	3,000	1,650	6,940	2,100	6,860	6,320	12,800
Manganese	mg/kg	NA	NA	985 J	171 J	693 J	150	1,300	204	1,170	114	299	351	323
Mercury	mg/kg	NA	NA	0.0516 U	0.0513 U	0.0507 U	0.100 U	0.100 U	0.0590 U	0.0707 U	0.0606 U	0.0772	0.0692 U	0.0681 U
Nickel	mg/kg	NA	NA	28.4	17.7	29.6	3,400	51.0	5.28	20.5	5.03	14.5	11.4	11.1
Potassium	mg/kg	NA	NA	516 U	513 U	507 U	500 U	660	827	12,100	721	2,540	1,650	1,320
Selenium	mg/kg	NA	NA	0.258 UJ	0.256 UJ	0.253 UJ	0.500 U	0.960	0.295 U	0.707 UG	0.303 U	0.359 U	0.346 U	0.340 U
Silver	mg/kg	NA	NA	0.258 UJ	0.256 UJ	0.253 UJ	0.500 U	0.500 U	0.295 U	0.353 U	0.303 U	0.359 U	0.346 U	0.340 U
Sodium	mg/kg	NA	NA	516 U	513 U	507 U	200	180	590 UL	925	606 U	717 U	692 U	681 U
Sulfide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/kg	NA	NA	0.258 UJ	0.256 UJ	0.253 UJ	1.80	3.40	0.295 U	0.883 GWa	0.303 U	0.359 U	0.346 U	0.340 U
Tin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	mg/kg	NA	NA	8.56	4.10	7.04	4.20	12.0	11.6	21.7	9.64	32.2	23.4	21.9
Zinc	mg/kg	NA	NA	51.8	58.6	61.8	18.0	150	14.7 MBD	255 MBB	24.3 MBD	52.8 MBB	44.2 MBB	23.3 MBD

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TABLE A-5
SURFACE WATER DATA
ORGANIC COMPOUNDS ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Constituents (ug/L)	SW-1 6/13/95 FS	SW-2 6/13/95 FS	SW-3 6/13/95 FS	SW-4 6/14/95 FS	SW-5 6/13/95 FS	SW-6 6/14/95 FS	SW-7 6/14/95 FS	SW-8 6/14/95 FS	SW-9 6/14/95 FS	SW-10 6/14/95 FS	SW-11 6/14/95 FS	SW-11 6/14/95 DUP	SW-12 6/14/95 FS	SW-13 6/14/95 FS	SW-14 6/14/95 FS
VOCs															
1,1,1-Trichloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethene, Total	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	50 UJ	50 UJ	50 UJ	50 UJ	50 UJ	50 U	50 UJ	50 UJ	50 UJ	50 UJ	50 UJ	50 UJ	50 UJ	50 UJ	50 UJ
2-Hexanone	50 U	50 U	50 U	50 U	50 U	**50 J**	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
4-Methyl-2-pentanone	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Acetone	**9.6 J**	**18 J**	**12 J**	**22 J**	**17 J**	**22 J**	**33 J**	**24 J**	50 U	50 U	50 U	50 UJ	50 U	50 U	50 UJ
Benzene	1.0 U	1.0 U	1.0 U	**1.3**	**0.50 J**	1.0 U	**1.1**	**1.6**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorodibromomethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	1.0 U	1.0 U	1.0 U	**0.90 J**	1.0 U	1.0 U	**0.50 J**	**0.40 J**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	1.0 U	1.0 U	1.0 U	1.0 U	**0.70 J**	1.0 U	**1.0 J**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**0.40 J**	1.0 U
Styrene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	1.0 U	1.0 U	1.0 U	**0.70 J**	1.0 U	1.0 U	**0.070 J**	**0.90 J**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes, Total	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
SVOCs															
1,2,4-Trichlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichlorobenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2,2'-oxybis(dichloropropane)	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
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Constituents (ug/L)	SW-1 6/13/95 FS	SW-2 6/13/95 FS	SW-3 6/13/95 FS	SW-4 6/14/95 FS	SW-5 6/13/95 FS	SW-6 6/14/95 FS	SW-7 6/14/95 FS	SW-8 6/14/95 FS	SW-9 6/14/95 FS	SW-10 6/14/95 FS	SW-11 6/14/95 FS	SW-11 6/14/95 DUP	SW-12 6/14/95 FS	SW-13 6/14/95 FS	SW-14 6/14/95 FS
SVOCs (Cont'd.)															
2,4,5-Trichlorophenol	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
2,4,6-Trichlorophenol	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dichlorophenol	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dimethylphenol	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	**48**	**29**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dinitrotoluene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,6-Dinitrotoluene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Chloronaphthalene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Chlorophenol	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Methylnaphthalene	5.0 U	**0.64 J**	5.0 U	**7.2**	5.0 U	**3.1 J**	**5**	**20**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Methylphenol	5.0 U	5.0 U	5.0 U	**0.96 J**	5.0 U	5.0 U	**100 B**	**65**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Nitroaniline	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
2-Nitrophenol	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
3,3'-Dichlorobenzidine	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
3-Nitroaniline	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
4,6-Dinitro-2-methylphenol	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 UJ	20 U	20 U
4-Bromophenyl phenyl ether	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloro-3-methylphenol	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloroaniline	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
4-Chlorophenyl phenyl ether	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methylphenol	5.0 U	5.0 U	5.0 U	**0.97 J**	5.0 U	5.0 U	**10**	**3.5 J**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Nitroaniline	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Acenaphthene	5.0 U	5.0 U	5.0 U	**0.62 J**	5.0 U	5.0 U	**0.67 J**	**1.1 J**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acenaphthylene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Anthracene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(a)anthracene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(a)pyrene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(b)fluoranthene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(g,h,i)perylene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(k)fluoranthene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Chloroethoxy)methane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Chloroethyl)ether	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Ethylhexyl)phthalate	5.0 U	5.0 U	5.0 U	**5.5**	**19**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	6.7 U
Butyl benzyl phthalate	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbazole	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chrysene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Di-n-butyl phthalate	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Di-n-octyl phthalate	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibenz(a,h)anthracene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibenzofuran	5.0 U	5.0 U	5.0 U	**0.80 J**	5.0 U	**0.57 J**	**1.1 J**	**1.6 J**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Diethyl phthalate	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dimethyl phthalate	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Fluoranthene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Fluorene	5.0 U	5.0 U	5.0 U	**1.2 J**	5.0 U	**0.71 J**	**1.4 J**	**2.0 J**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

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TABLE A-5
SURFACE WATER DATA
ORGANIC COMPOUNDS ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Constituents (ug/L)	SW-1 6/13/95 FS	SW-2 6/13/95 FS	SW-3 6/13/95 FS	SW-4 6/14/95 FS	SW-5 6/13/95 FS	SW-6 6/14/95 FS	SW-7 6/14/95 FS	SW-8 6/14/95 FS	SW-9 6/14/95 FS	SW-10 6/14/95 FS	SW-11 6/14/95 FS	SW-11 6/14/95 DUP	SW-12 6/14/95 FS	SW-13 6/14/95 FS	SW-14 6/14/95 FS
SVOCs (Cont'd.)															
Hexachlorobutadiene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorocyclopentadiene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Indeno(1,2,3-cd)pyrene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Isophorone	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitroso-di-n-propylamine	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U
N-Nitrosodiphenylamine	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Naphthalene	5.0 U	**0.66 J**	5.0 U	**4.0 J**	5.0 U	**2.0 J**	**5.6**	**9.2**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Nitrobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Pentachlorophenol	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Phenanthrene	5.0 U	5.0 U	5.0 U	**1.9 J**	5.0 U	**0.95 J**	**2.9 J**	**3.2 J**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Phenol	5.0 U	5.0 U	5.0 U	**4.0 J**	5.0 U	**1.7 J**	5.0 U	**10**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Pyrene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
PCBs															
Aroclor-1016	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 UJ	0.20 U	0.20 U	0.20 U
Aroclor-1221	0.80 U	0.80 U	0.80 U	0.20 U	0.80 U	0.80 U	0.80 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 UJ	0.20 U	0.20 U	0.20 U
Aroclor-1232	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 UJ	0.40 U	0.40 U	0.40 U
Aroclor-1242	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 UJ	0.20 U	0.20 U	0.20 U
Aroclor-1248	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 UJ	0.20 U	0.20 U	0.20 U
Aroclor-1254	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 UJ	0.20 U	0.20 U	0.20 U
Aroclor-1260	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 UJ	0.20 U	0.20 U	0.20 U
Total Aroclors	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

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TABLE A-5
SURFACE WATER DATA
ORGANIC COMPOUNDS ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Constituents (ug/L)	SW-15 6/14/95 FS	SW-17 6/15/95 FS	SW-19 6/15/95 FS	SW-20 6/15/95 FS	SW-20 6/15/95 DUP	SW-21 6/15/95 FS	SW-26 8/10/00 FS	SW-27 8/10/00 FS	SW-28 8/10/00 FS	SW-29 8/10/00 FS	SW-29 8/10/00 DUP	SW-31 8/10/00 FS	SW-32 8/10/00 FS	SW-33 8/11/00 FS
VOCs														
1,1,1-Trichloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethene, Total	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	50 UJ	50 UJ	50 UJ	50 UJ	50 UJ	50 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	50 U	50 U	50 U	50 U	50 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	50 U	50 U	50 U	50 U	50 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	50 UJ	50 UJ	**2.6 J**	50 UJ	**2.3 J**	50 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ
Carbon disulfide	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**0.066 J**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorodibromomethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**1.1**
Chloromethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.50 U	**0.11 J**	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
cis-1,3-Dichloropropene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.7 U	2.5 U	2.8 U	2.3 U	2.6 U	2.2 U	2.6 U	5.4 U
Styrene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
trans-1,3-Dichloropropene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**0.42 J**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes, Total	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
SVOCs														
1,2,4-Trichlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichlorobenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2,2'-oxybis(dichloropropane)	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

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SVOCs (Cont'd.)														
2,4,5-Trichlorophenol	50 U	50 U	50 U	50 U	50 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4,6-Trichlorophenol	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dichlorophenol	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dinitrotoluene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,6-Dinitrotoluene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Chloronaphthalene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Chlorophenol	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Methylnaphthalene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Methylphenol	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Nitroaniline	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
2-Nitrophenol	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
3,3'-Dichlorobenzidine	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
3-Nitroaniline	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
4,6-Dinitro-2-methylphenol	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
4-Bromophenyl phenyl ether	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloro-3-methylphenol	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloroaniline	20 U	20 U	20 U	20 U	20 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl phenyl ether	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methylphenol	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Nitroaniline	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Acenaphthene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acenaphthylene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Anthracene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(a)anthracene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(a)pyrene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(b)fluoranthene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(g,h,i)perylene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(k)fluoranthene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Chloroethoxy)methane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Chloroethyl)ether	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Ethylhexyl)phthalate	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.3 U	**4.1 J**
Butyl benzyl phthalate	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbazole	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Di-n-butyl phthalate	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Di-n-octyl phthalate	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibenz(a,h)anthracene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibenzofuran	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Diethyl phthalate	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dimethyl phthalate	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Fluoranthene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Fluorene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

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TABLE A-5
SURFACE WATER DATA
ORGANIC COMPOUNDS ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Constituents (ug/L)	SW-15 6/14/95 FS	SW-17 6/15/95 FS	SW-19 6/15/95 FS	SW-20 6/15/95 FS	SW-20 6/15/95 DUP	SW-21 6/15/95 FS	SW-26 8/10/00 FS	SW-27 8/10/00 FS	SW-28 8/10/00 FS	SW-29 8/10/00 FS	SW-29 8/10/00 DUP	SW-31 8/10/00 FS	SW-32 8/10/00 FS	SW-33 8/11/00 FS
SVOCs (Cont'd.)														
Hexachlorobutadiene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorocyclopentadiene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Indeno(1,2,3-cd)pyrene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Isophorone	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitroso-di-n-propylamine	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosodiphenylamine	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Naphthalene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Nitrobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Pentachlorophenol	20 U	20 U	20 U	20 U	20 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Phenanthrene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Phenol	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	**1.5 J**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Pyrene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
PCBs														
Aroclor-1016	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor-1221	0.20 U	0.80 U	0.80 U	0.20 U	0.80 U	0.80 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor-1232	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
Aroclor-1242	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor-1248	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor-1254	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor-1260	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Total Aroclors	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

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TABLE A-6
SURFACE WATER ANALYICAL DATA
INORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Constituents (ug/L)	SW-1 6/13/95 FS	SW-2 6/13/95 FS	SW-3 6/13/95 FS	SW-4 6/14/95 FS	SW-5 6/13/95 FS	SW-6 6/14/95 FS	SW-7 6/14/95 FS	SW-8 6/14/95 FS	SW-9 6/14/95 FS	SW-10 6/14/95 FS	SW-11 6/14/95 FS	SW-11 6/14/95 DUP	SW-12 6/14/95 FS	SW-13 6/14/95 FS	SW-14 6/14/95 FS	SW-15 6/14/95 FS
Aluminum	**375 J**	**539 J**	**349 J**	**5,900 J**	**491 J**	**1,580 J**	**1,160 J**	**6,070 J**	**282 J**	**951 J**	**1,880 J**	**2,630**	**1,890 J**	**267 J**	**923**	**584**
Antimony	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Arsenic	1.0 UJ	1.0 U	1.0 UJ	**2.2**	1.0 UJ	**1.2**	1.0 UJ	**2.6**	**2.4**	**6.1**	**3.5**	**4.6**	**3.5**	**3.8**	**6.2**	**3.8**
Barium	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U
Beryllium	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Cadmium	**0.79**	**2.0**	**1.4**	**1.0**	**1.6**	**1.2**	**1.0**	**1.9**	0.20 UJ	0.20 UJ	0.40 UJ	0.40 UJ	0.40 UJ	0.20 U	0.20 UJ	0.20 UJ
Calcium	**48,900**	**44,600**	**41,200**	**46,300**	**45,200**	**44,700**	**41,400**	**43,600**	**68,100**	**65,900**	**131,000**	**138,000**	**143,000**	**112,000**	**112,000**	**103,000**
Chromium	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Cobalt	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Copper	25 U	25 U	25 U	**48.4**	25 U	25 U	25 U	**48.7**	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Cyanide, Total	**15**	**5.2**	**5.1**	5.0 U	5.0 U	5.0 U	**5.6**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 UJ	5.0 UJ
Iron	**686**	**1,190**	**841**	**27,500**	**897**	**3,750**	**3,150**	**23,700**	**535**	**2,460**	**2,530**	**3,200**	**2,710**	**934**	**1,490**	**1,160**
Lead	**7.6**	**9.0**	**8.6**	**25.8**	**8.9**	**28.1**	**28.2**	**57.8**	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Magnesium	**10,200**	**9,110**	**8,690**	**11,000**	**9,440**	**9,420**	**8,480**	**10,500**	**15,400**	**37,900**	**46,700**	**49,200**	**55,400**	**101,000**	**45,500**	**43,500**
Manganese	**206**	**219**	**194**	**747**	**208**	**352**	**287**	**828**	**519**	**382**	**324**	**340**	**442**	**525**	**163**	**155**
Mercury	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	**0.39**	0.20 U	0.20 U	0.20 UJ	0.20 U	0.20 U	0.20 UJ	0.20 UJ
Nickel	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Potassium	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	**6,530**	5,000 U	**16,800**	**17,700**	**21,800**	**85,300**	**19,900**	**19,200**
Selenium	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 UJ	5.0 UJ
Silver	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Sodium	**24,900**	**23,400**	**22,100**	**22,800**	**23,500**	**22,800**	**21,000**	**21,800**	**49,200**	**71,400**	**109,000**	**111,000**	**130,000**	**353,000**	**98,100**	**93,100**
Thallium	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 UJ	2.0 U	2.0 UJ	2.0 UJ	2.0 UJ	2.0 UJ	2.0 UJ	2.0 UJ
Vanadium	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Zinc	**849**	**1,260**	**1,090**	**1,500**	**1,100**	**2,000**	**1,740**	**3,680**	20 U	**20.3**	**23.6**	R	20 U	20 U	**44.9**	**20.6**

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TABLE A-6
SURFACE WATER ANALYICAL DATA
INORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

	SW-17	SW-19	SW-20		SW-21	SW-26	SW-27	SW-28	SW-29		SW-31	SW-32	SW-33
	6/15/95	6/15/95	6/15/95		6/15/95	8/10/00	8/10/00	8/10/00	8/10/00		8/10/00	8/10/00	8/11/00
Constituents (ug/L)	FS	FS	FS	DUP	FS	FS	FS	FS	FS	DUP	FS	FS	FS
Aluminum	**281**	**131**	**150**	100 U	100 U	100 U	**62.3 B**	**319**	**58.5 B**	**64.2 B**	**640**	**1,880**	**671**
Antimony	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	**2.4 B**	5.0 U	5.0 U	5.0 U
Arsenic	**3.2**	**2.8**	**2.5**	**2.1**	**2.6**	10 U	10 U	10 U	10 U	10 U	**4.3 B**	10 U	10 U
Barium	200 U	200 U	**202**	200 U	200 U	**57.4 B**	**393**	**74.8 B**	**91.6 B**	**91.3 B**	**84.6 B**	**130**	**11.8 B**
Beryllium	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	**0.94 B**
Cadmium	0.20 UJ	0.20 U	0.20 U	0.20 U	0.20 U	**0.30 B**	**0.36 B**	1.0 U	**0.34 B**	1.0 U	1.0 U	1.0 U	1.0 U
Calcium	**124,000**	**48,600**	**54,600**	**52,400**	**52,100**	**69,500**	**92,200**	**76,100**	**86,700**	**89,300**	**102,000**	**111,000**	**4,070 B**
Chromium	50 U	50 U	50 U	50 U	50 U	5.0 U	5.0 U	**1.7 B**	5.0 U	5.0 U	**2.2 B**	**1.6 B**	5.0 U
Cobalt	50 U	50 U	50 U	50 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Copper	25 U	25 U	25 U	25 U	25 U	**8.0 B**	**8.5 B**	25 U	**13.7 B**	**15.6 B**	25 U	25 U	**4.2 B**
Cyanide, Total	5.0 UJ	5.0 UJ	5.0 UJ	**10 J**	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Iron	**1,660**	R	R	R	R	**1,240**	**4,110**	**1,400**	**655**	**609**	**1,480**	**1,070**	100 U
Lead	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Magnesium	**53,500**	**82,600**	**91,600**	**88,300**	**88,200**	**28,900**	**38,700**	**28,000**	**36,600**	**35,600**	**46,800**	**35,500**	100 U
Manganese	**363**	**28.1**	**27.2**	**25.5**	**24.3**	**244**	**355**	**360**	**144**	**139**	**149**	**240**	**0.99 B**
Mercury	0.20 UJ	0.20 UJ	0.20 UJ	0.20 UJ	0.20 UJ	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Nickel	50 U	50 U	50 U	50 U	50 U	40 U	**5.9 B**	**3.3 B**	**4.0 B**	**4.0 B**	**6.8 B**	**3.3 B**	40 U
Potassium	**8,790**	**88,900**	**102,000**	**93,200**	**94,300**	**15,500**	**31,100**	**20,900**	**25,300**	**27,300**	**19,200**	**26,900**	**54.9 B**
Selenium	5.0 U	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Silver	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Sodium	**47,700**	**268,000**	**309,000**	**282,000**	**286,000**	**80,100**	**192,000**	**90,000**	**132,000**	**133,000**	**133,000**	**124,000**	5,000 U
Thallium	2.0 UJ	2.0 UJ	2.0 UJ	2.0 UJ	2.0 UJ	10 U	**8.6 B**	**7.6 B**	10 U	**5.5 B**	**7.0 B**	**7.7 B**	10 U
Vanadium	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Zinc	R	R	R	20 U	R	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U

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TABLE A-7
SEDIMENT ANALYTICAL DATA
INORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Constituents (ug/kg)	SD-1			SD-2			SD-3				SD-4	
	(0 - 1.5') 6/15/95 FS	(1.5 - 3') 6/15/95 FS	(3 - 4.5') 6/15/95 FS	(0 - 1.7') 6/15/95 FS	(1.7 - 3.4') 6/15/95 FS	(3.4 - 5') 6/15/95 FS	(0 - 1.3') 6/15/95 FS	(0 - 1.3') 6/15/95 DUP	(1.3 - 2.6') 6/15/95 FS	(2.6 - 3.9') 6/15/95 FS	(0 - 1.5') 6/19/95 FS	(1.5 - 3') 6/19/95 FS
Inorganics												
Aluminum	**12,500,000**	**11,200,000**	**8,700,000**	**13,600,000**	**11,600,000**	**13,900,000**	**10,200,000**	**11,600,000**	**8,130,000**	**6,570,000**	**95,600,000**	**3,290,000**
Antimony	**1,630 J**	763 UJ	701 UJ	818 UJ	971 UJ	**1,330 J**	1,090 UJ	1,060 UJ	727 UJ	**708 J**	1,330 UJ	354 UJ
Arsenic	**9,030**	**17,700**	**10,200**	**7,690**	**11,100**	**8,430**	**9,030**	**7,470**	**6,220**	**4,320**	**3,840**	**5,310**
Barium	**92,300**	**94,600**	**81,000**	**100,000**	**88,600**	**103,000**	**82,900**	**88,000**	**54,900**	**46,200**	**89,300**	**32,000**
Beryllium	**989**	**763**	701 U	**1,060**	**1,170**	**881**	**1,090**	**1,170**	**873**	617 U	**734**	709 U
Cadmium	**1,100**	**1,080**	**335**	**936**	**407**	**109**	**2,090**	**1,740**	**342**	**174**	**442**	**115**
Calcium	**28,300,000**	**42,300,000**	**42,300,000**	**34,600,000**	**28,100,000**	**39,600,000**	**14,200,000**	**14,800,000**	**15,900,000**	**18,400,000**	**41,800,000**	**36,700,000**
Chromium	**67,400**	**59,900**	**34,700**	**83,900**	**58,700**	**84,200**	**34,300**	**36,500**	**37,900**	**34,600**	**68,400**	**7,650**
Cobalt	8,240 U	7,630 U	7,010 U	8,180 U	9,710 U	6,290 U	10,900 U	10,600 U	7,270 U	6,170 U	6,670 U	7,090 U
Copper	**66,700 J**	**87,000 J**	**41,200 J**	**40,400 J**	60,800 UJ	**33,200 J**	**59,700 J**	**63,700 J**	**26,800 J**	**14,700 J**	**22,600 J**	**4,520 J**
Cyanide, Total	410 UJ	380 UJ	350 UJ	410 UJ	490 UJ	310 UJ	540 UJ	**850 J**	360 UJ	310 UJ	330 UJ	**510 J**
Iron	**53,500,000**	**35,100,000**	**18,300,000**	**30,500,000**	**50,800,000**	**26,800,000**	**36,300,000**	**37,400,000**	**34,100,000**	**17,000,000**	**22,300,000**	**7,460,000**
Lead	**101,000**	**113,000**	**21,300**	**53,000**	**43,000**	**11,200**	**89,400**	**90,000**	**21,200**	**11,600**	**31,300**	**2,550**
Magnesium	**7,020,000 J**	**13,100,000 J**	**14,200,000 J**	**5,850,000 J**	**9,220,000 J**	**6,040,000 J**	**6,780,000 J**	**7,340,000 J**	**4,050,000 J**	**3,530,000 J**	**7,710,000 J**	**11,700,000 J**
Manganese	**2,370,000**	**1,570,000**	**966,000**	**4,290,000**	**1,870,000**	**4,670,000**	**826,000**	**876,000**	**1,440,000**	**1,800,000**	**4,280,000**	**279,000**
Mercury	82 U	**150**	**86**	82 U	97 U	63 U	109 U	106 U	73 U	62 U	67 U	71 U
Nickel	**29,100**	**30,000**	**19,800**	**19,100**	**31,200**	**17,700**	**23,400**	**23,900**	**19,700**	**9,630**	**13,900**	**6,730**
Potassium	**1,350,000**	**1,580,000**	**1,150,000**	**1,380,000**	**1,210,000**	**1,750,000**	1,090,000 U	**1,070,000**	727,000 U	**699,000**	**1,120,000**	709,000 U
Selenium	**1,760 J**	**1,350 J**	701 UJ	**1,090 J**	**2,290 J**	**1,310 J**	**3,210 J**	**2,750 J**	**2,460 J**	**723 J**	1,330 UJ	354 UJ
Silver	824 UJ	763 UJ	701 UJ	818 UJ	971 UJ	1,260 UJ	1,090 UJ	1,060 UJ	727 UJ	617 UJ	1,330 UJ	354 U
Sodium	824,000 U	763,000 U	701,000 U	**1,280,000**	**1,150,000**	**845,000**	1,090,000 U	1,060,000 U	727,000 U	617,000 U	667,000 U	709,000 U
Thallium	412 U	382 U	351 U	409 U	485 U	315 U	544 U	530 U	364 U	309 U	334 U	354 U
Tin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	**12,400**	**17,600**	**19,600**	**18,300**	**12,600**	**26,400**	**10,100**	**11,100**	**7,560**	**10,400**	**18,600**	**11,500**
Zinc	**207,000**	**185,000**	**67,300**	**1,060,000**	**125,000**	**36,000**	**2,560,000**	**2,660,000**	**176,000**	**49,100**	**881,000**	**21,000**

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TABLE A-7
SEDIMENT ANALYTICAL DATA
INORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

	SD-5			SD-6			SD-7			SD-8		
Constituents (ug/kg)	**(0 - 1.8') 6/21/95 FS**	**(1.8 - 3.6') 6/21/95 FS**	**(3.6 - 5.4') 6/21/95 FS**	**(0 - 1.6') 6/21/95 FS**	**(1.6 - 3.2') 6/21/95 FS**	**(3.2 - 4.8') 6/21/95 FS**	**(0 - 1.3') 6/21/95 FS**	**(1.3 - 2.6') 6/21/95 FS**	**(2.6 - 3.9') 6/21/95 FS**	**(0 - 1.5') 6/21/95 FS**	**(1.5 - 3') 6/21/95 FS**	**(3 - 4.5') 6/21/95 FS**
Inorganics												
Aluminum	**19,200,000 J**	**10,400,000 J**	**6,770,000 J**	**8,460,000 J**	**10,400,000 J**	**4,080,000 J**	**13,900,000 J**	**9,760,000 J**	**7,950,000 J**	**12,400,000 J**	**10,400,000 J**	**7,390,000**
Antimony	6,700 UJ	**1,200 J**	685 UJ	778 UJ	**1,390 J**	**465 J**	3,050 UJ	**1,200 J**	**1,080 J**	**1,130 J**	**1,090 J**	**828 J**
Arsenic	**2,780 J**	**5,910 J**	**3,020 J**	**7,850 J**	**5,790 J**	**3,660 J**	**4,020 J**	**4,410 J**	**5,350 J**	**11,800 J**	**6,080 J**	**4,330 J**
Barium	**134,000**	**62,600**	**58,500**	**56,700**	**62,800**	**38,700**	**126,000**	**54,400**	**57,700**	**84,500**	**59,200**	**70,900**
Beryllium	**1,410**	**788**	685 U	**1,010**	**972**	678 U	**1,040**	**1,060**	**829**	**1,200**	**1,090**	**671**
Cadmium	**208**	**442**	**166**	**427**	**503**	**147**	**339**	**409**	**424**	**651**	**950**	**287**
Calcium	**73,100,000**	**24,300,000**	**40,800,000**	**12,200,000**	**24,000,000**	**26,300,000**	**45,700,000**	**11,800,000**	**21,200,000**	**10,700,000**	**11,700,000**	**28,200,000**
Chromium	**195,000 J**	**44,400 J**	**44,000 J**	**29,700 J**	**43,500 J**	**13,900 J**	**129,000 J**	**42,500 J**	**40,900 J**	**48,800 J**	**58,000 J**	**56,600 J**
Cobalt	6,700 U	7,880 U	6,850 U	7,780 U	8,100 U	6,780 U	6,090 U	7,540 U	7,540 U	8,540 U	8,390 U	6,710 U
Copper	**19,000**	**43,300**	**11,700**	**31,000**	**43,300**	**13,100**	**28,000**	**35,000**	**40,800**	**49,800**	**44,100**	**38,300**
Cyanide, Total	340 U	390 U	**720**	390 U	400 U	340 U	300 U	380 U	380 U	430 U	420 U	340 U
Iron	**30,700,000**	**42,200,000**	**14,400,000**	**37,600,000**	**46,900,000**	**13,800,000**	**37,400,000**	**42,700,000**	**41,300,000**	**47,600,000**	**63,300,000**	**35,600,000**
Lead	**18,400**	**42,800**	**6,200**	**33,300**	**57,800**	**11,100**	**27,600**	**38,100**	**50,900**	**38,100**	**34,500**	**30,800**
Magnesium	**3,550,000**	**10,000,000**	**11,000,000**	**4,390,000**	**9,820,000**	**8,500,000**	**3,260,000**	**3,760,000**	**6,870,000**	**5,870,000**	**5,270,000**	**8,130,000**
Manganese	**16,700,000**	**1,440,000**	**2,970,000**	**730,000**	**955,000**	**500,000**	**10,200,000**	**1,310,000**	**1,650,000**	**1,090,000**	**1,090,000**	**1,910,000**
Mercury	67 U	79 U	69 U	78 U	**94**	68 U	61 U	**82**	**83**	85 U	**91**	**79**
Nickel	**22,800**	**22,600**	**10,800**	**19,300**	**24,100**	**8,340**	**20,000**	**21,100**	**21,900**	**26,100**	**35,800**	**23,300**
Potassium	**1,700,000**	**1,070,000**	**981,000**	778,000 U	**944,000**	**684,000**	**1,210,000**	754,000 U	754,000 U	**942,000**	839,000 U	**789,000**
Selenium	6,700 UJ	788 UJ	685 UJ	778 UJ	810 UJ	339 UJ	3,050 UJ	**1,190 J**	754 UJ	854 UJ	839 UJ	671 UJ
Silver	6,700 U*	788 U*	685 U*	778 U*	810 U*	339 U	3,050 U*	754 U*	754 U*	854 U*	839 U*	671 U*
Sodium	**894,000**	788,000 U	685,000 U	778,000 U	810,000 U	678,000 U	**766,000**	754,000 U	754,000 U	854,000 U	839,000 U	671,000 U
Thallium	335 U	394 U	343 U	389 U	405 U	339 U	305 U	377 U	377 U	427 U	420 U	335 U
Tin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	**23,700**	**8,830**	**14,500**	**1,790**	**5,510**	**9,020**	**17,400**	**3,020**	**6,180**	**4,870**	1,680 U	**8,790**
Zinc	**213,000**	**91,700**	**27,100**	**280,000**	**126,000**	**32,800**	**415,000**	**105,000**	**114,000**	**731,000**	**541,000**	**100,000**

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SEDIMENT ANALYTICAL DATA
INORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Constituents (ug/kg)	SD-9			SD-10			SD-11			SD-12			
	(0 - 1.5') 6/21/95		(1.5 - 3') 6/21/95	(0 - 0.5') 6/20/95	(0.75 - 1.25') 6/20/95	(1.5 - 2') 6/20/95	(0 - 0.5') 6/20/95	(0.9 - 1.4') 6/20/95	(1.8 - 2.3') 6/20/95	(0 - 0.5') 6/20/95	(1.05 - 1.55') 6/20/95		(2.1 - 2.6') 6/20/95
	FS	DUP	FS	FS	FS	FS	FS	FS	FS	FS	FS	DUP	FS
Inorganics													
Aluminum	**7,500,000**	**11,400,000**	**3,220,000**	**9,160,000**	**8,990,000**	**5,470,000**	**14,600,000**	**10,600,000**	**12,000,000**	**10,600,000**	**11,100,000**	**13,900,000**	**13,000,000**
Antimony	3,020 UJ*	3,150 UJ*	354 UJ	488 UJ	**903 J**	341 UJ	**913 J**	**1,510 J**	**1,420 J**	**968 J**	1,750 UJ*	1,620 UJ*	**979 J**
Arsenic	**1,960**	**4,720**	**9,630**	**4,830 J**	**7,490 J**	**4,480 J**	**5,680 J**	**5,620 J**	**5,940 J**	**5,450**	**9,810**	**11,300**	**9,600**
Barium	**77,500**	**114,000**	**35,400**	**86,600**	**73,400**	**44,600**	**117,000**	**67,700**	**93,100**	**93,600**	**77,100**	**77,100**	**98,700**
Beryllium	604 U	**756**	708 U	**975**	1,030 U	683 U	**1,250**	**997**	1,080 U	1,300 U	1,750 U	1,620 U	1,000 U
Cadmium	**171**	**180**	**166**	**1,890**	**968**	**127**	**1,140**	**485**	**660**	**1,950**	**1,280**	**1,780 J**	**943 S**
Calcium	**33,000,000 J**	**49,300,000 J**	**38,100,000 J**	**5,620,000**	**13,500,000**	**34,000,000**	**6,450,000**	**8,360,000**	**27,100,000**	**7,130,000 J**	**10,900,000 J**	**10,400,000**	**27,600,000 J**
Chromium	**77,900**	**128,000**	**13,900**	**29,000**	**39,100**	**17,300**	**27,000**	**45,100**	**33,000**	**35,300**	**34,500**	**41,100**	**29,300**
Cobalt	6,040 U	6,300 U	7,080 U	9,750 U	10,300 U	6,830 U	8,930 U	9,970 U	10,800 U	13,000 U	17,500 U	16,200 U	10,000 U
Copper	**17,100**	**23,400**	**5,740**	**65,600**	**51,300**	**13,000**	**50,800**	**45,700**	**52,600**	**79,500**	**52,600**	**54,700**	**40,700**
Cyanide, Total	300 U	310 U	350 U	490 UJ	**570 J**	340 UJ	450 UJ	**660 J**	540 UJ	650 U	880 U	810 U	500 U
Iron	**19,200,000**	**30,700,000**	**8,090,000**	**32,800,000**	**36,800,000**	**13,000,000**	**32,800,000**	**54,300,000**	**36,500,000**	**41,900,000**	**40,900,000**	**48,700,000**	**26,200,000**
Lead	**15,600**	**15,000**	**2,980**	**101,000**	**63,600**	**19,100**	**61,000**	**32,000**	**163,000**	**111,000**	**139,000**	**139,000**	**119,000**
Magnesium	**3,000,000**	**3,290,000**	**11,400,000**	**3,640,000**	**3,520,000**	**12,200,000**	**5,520,000**	**3,720,000**	**10,600,000**	**4,190,000**	**3,610,000**	**4,250,000**	**13,900,000**
Manganese	**6,510,000**	**11,000,000**	**838,000**	**744,000**	**1,290,000**	**821,000**	**692,000**	**882,000**	**701,000**	**998,000**	**724,000**	**787,000**	**645,000**
Mercury	60 U	63 U	71 U	98 U	103 U	68 U	89 U	100 U	**129**	130 U	175 U	162 U	100 U
Nickel	**35,100**	**55,700**	**9,990**	**21,100**	**27,500**	**14,600**	**17,200**	**36,100**	**36,200**	**25,900**	**31,700**	**34,800**	**30,000**
Potassium	**697,000**	**1,090,000**	708,000 U	975,000 U	1,030,000 U	**761,000**	**1,260,000**	997,000 U	**1,120,000**	1,300,000 U	1,750,000 U	1,620,000 U	**1,660,000**
Selenium	3,020 U*	3,150 U*	354 UJ	**901 J**	**593 J**	341 UJ	893 U*	**1,980 J**	**1,600 J**	1,300 UJ*	1,750 U*	1,620 UJ*	1,000 U*
Silver	3,020 UJ*	3,150 UJ*	354 UJ	488 UJ	513 UJ	341 UJ	893 UJ*	997 UJ	1,080 UJ	648 UJ	1,750 UJ*	1,620 UJ*	500 UJ
Sodium	**607,000**	**830,000**	708,000 U	975,000 U	1,030,000 U	683,000 U	893,000 U	997,000 U	1,080,000 U	1,300,000 U	1,750,000 U	1,620,000 U	1,000,000 U
Thallium	302 UJ	315 UJ	354 UJ	488 U	513 U	341 UJ	446 UJ	498 U	538 U	648 U	876 U	810 U	500 U
Tin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	**16,400**	**25,400**	**9,850**	**11,300**	**15,400**	**14,300**	**7,850**	**13,500**	**23,100**	**12,800**	**16,800**	**18,000**	**29,600**
Zinc	**164,000**	**142,000**	**20,800**	**3,570,000**	**1,370,000**	**92,300**	**2,510,000**	**675,000**	**233,000**	**4,030,000**	**761,000**	**1,740,000**	**177,000**

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INORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Constituents (ug/kg)	SD-13			SD-14			SD-15			SD-17			
	(0 - 0.5') 6/20/95 FS	(1.45 - 1.95') 6/20/95 FS	(2.9 - 3.4') 6/20/95 FS	(0 - 0.5') 6/20/95 FS	(0.9 - 1.4') 6/20/95 FS	(1.8 - 2.3') 6/20/95 FS	(0 - 0.5') 6/20/95 FS	(0.9 - 1.4') 6/20/95 FS	(1.8 - 2.3') 6/20/95 FS	(0 - 0.5') 6/20/95 FS	(0 - 0.5') 6/20/95 DUP	(0.95 - 1.45') 6/20/95 FS	(1.9 - 2.4') 6/20/95 FS
Inorganics													
Aluminum	**14,700,000**	**17,300,000**	**11,100,000**	**16,900,000**	**18,800,000**	**16,200,000**	**16,400,000**	**17,600,000**	**8,320,000**	NA	NA	NA	NA
Antimony	1,550 UJ	**1,190 J**	**612 J**	**1,590 J**	1,780 UJ*	**1,510 J**	**1,570 J**	**1,670 J**	**969 J**	**1,480 J**	809 UJ	**1,300 J**	**1,470 J**
Arsenic	**5,980 J**	**15,200 J**	**7,660 J**	**5,020**	**6,650**	**7,430**	**7,370 J**	**9,060 J**	**5,730 J**	**8,720 J**	**6,030 J**	**5,460 J**	**9,850 J**
Barium	**94,200**	**86,900**	**74,100**	**103,000**	**92,800**	**115,000**	**90,800**	**80,100**	**62,200**	**61,200**	**67,600**	**70,100**	**75,700**
Beryllium	1,550 U	1,800 U	899 U	**1,320**	1,780 U	**1,140**	1,430 U	1,440 U	924 U	**939**	**971**	**1,050**	**1,010**
Cadmium	**1,830**	**900**	**319**	**1,680 J**	**1,300 J**	**810 J**	**1,440**	**1,880**	**677**	**180 J**	**175 J**	**294 J**	**473 J**
Calcium	**7,560,000**	**11,800,000**	**27,900,000**	**8,180,000**	**11,100,000**	**28,600,000**	**7,100,000 J**	**10,100,000 J**	**55,100,000 J**	NA	NA	NA	NA
Chromium	**42,300**	**48,300**	**23,400**	**39,800**	**44,300**	**41,300**	**42,000**	**47,800**	**19,400**	**54,400**	**53,400**	**27,800**	**32,100**
Cobalt	15,500 U	18,000 U	8,990 U	13,200 U	17,800 U	10,300 U	14,300 U	14,400 U	9,240 U	7,820 U	8,090 U	8,740 U	7,750 U
Copper	**72,200**	**60,600**	**42,900**	**73,100 J**	**46,600 J**	**52,300 J**	**69,200**	**51,900**	**25,600**	**42,200**	**27,300**	**36,100**	**56,600**
Cyanide, Total	**820 J**	**920 J**	450 U	660 UJ	890 UJ	520 UJ	720 U	**810**	460 U	**440 J**	400 UJ	**660**	**590 J**
Iron	**44,800,000**	**51,300,000**	**28,400,000**	**45,300,000**	**51,400,000**	**43,700,000**	**42,900,000 J**	**51,100,000 J**	**18,300,000 J**	NA	NA	NA	NA
Lead	**110,000**	**138,000**	**21,100**	**111,000**	**95,200**	**123,000**	**83,300**	**112,000**	**91,500**	**22,700**	**25,300**	**44,000**	**72,200**
Magnesium	**5,350,000**	**4,770,000**	**11,700,000**	**6,240,000 J**	**5,980,000 J**	**13,000,000 J**	**5,640,000**	**4,860,000**	**20,700,000**	NA	NA	NA	NA
Manganese	**921,000**	**806,000**	**495,000**	**983,000**	**718,000**	**821,000**	**781,000**	**800,000**	**455,000**	NA	NA	NA	NA
Mercury	155 U	180 U	**109**	132 UJ	178 UJ	**114 J**	143 UJ	144 UJ	92 UJ	78 U	81 U	87 U	**79**
Nickel	**28,700**	**35,400**	**26,000**	**24,400**	**34,500**	**36,700**	**26,900**	**36,400**	**21,100**	**31,100**	**28,200**	**24,900**	**30,700**
Potassium	1,550,000 U	1,800,000 U	**1,020,000**	1,320,000 U	1,780,000 U	**2,230,000**	1,430,000 U	1,440,000 U	**1,310,000**	NA	NA	NA	NA
Selenium	1,550 UJ	**1,660 J**	**1,230 J**	1,320 U*	1,780 U*	1,030 U*	**1,400**	**2,460**	462 U	391 UJ	809 UJ	874 U*	**1,960**
Silver	1,550 UJ	902 UJ	449 UJ	1,320 UJ*	1,780 UJ*	1,030 UJ*	716 UJ	1,440 UJ	462 UJ	782 UJ	809 UJ	874 UJ	775 UJ
Sodium	1,550,000 U	1,800,000 U	899,000 U	1,320,000 U	1,780,000 U	1,030,000 U	1,430,000 U	1,440,000 U	924,000 U	NA	NA	NA	NA
Thallium	774 U	902 U	449 U	659 U	889 U	517 U	716 U	719 U	462 U	391 UJ	404 UJ	437 UJ	388 UJ
Tin	NA	NA	NA	NA	NA	NA	NA	NA	NA	156,000 U	162,000 U	175,000 U	155,000 U
Vanadium	**16,900**	**22,000**	**21,900**	**7,770**	**10,700**	**26,000**	**17,500**	**21,400**	**19,200**	**15,900**	**17,600**	**15,300**	**20,500**
Zinc	**3,270,000**	**468,000**	**72,500**	**2,800,000 J**	**1,080,000 J**	**214,000 J**	**1,890,000**	**1,350,000**	**146,000**	**212,000**	**231,000**	**128,000**	**148,000**

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TABLE A-7
SEDIMENT ANALYTICAL DATA
INORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

	SD-16			SD-18			SD-19			SD-20		
Constituents (ug/kg)	**(0 - 0.5') 6/20/95 FS**	**(1.1 - 1.6') 6/20/95 FS**	**(2.2 - 2.7') 6/20/95 FS**	**(0 - 0.5') 6/20/95 FS**	**(2.25 - 2.75') 6/20/95 FS**	**(4.5 - 5') 6/20/95 FS**	**(0 - 0.5') 6/20/95 FS**	**(1.75 - 2.25') 6/20/95 FS**	**(3.5 - 4') 6/20/95 FS**	**(0 - 0.5') 6/20/95 FS**	**(0.7 - 1.2') 6/20/95 FS**	**(1.4 - 1.9') 6/20/95 FS**
Inorganics												
Aluminum	**10,900,000**	**11,400,000**	**11,000,000**	**15,800,000 J**	**17,300,000**	**9,550,000**	**19,000,000**	**14,500,000**	**8,310,000**	**12,300,000**	**16,200,000**	**9,270,000**
Antimony	999 UJ	**1,380 J**	**769 J**	2,100 UJ	**1,340 J**	743 UJ*	1,540 UJ*	**1,350 J**	**778 J**	1,350 UJ*	**1,950 J**	**1,200 J**
Arsenic	**9,370 J**	**6,240 J**	**4,590 J**	**5,460 J**	**7,470**	**6,600**	**5,780**	**8,940**	**3,860**	**7,050**	**6,610**	**4,600**
Barium	**67,300**	**52,500**	**59,500**	**74,000**	**88,500**	**66,000**	**96,800**	**80,500**	**45,000**	**104,000**	**93,600**	**83,200**
Beryllium	**999**	**776**	813 U	**1,570**	**1,530**	**743**	**1,700**	**1,370**	**806**	**1,490**	**1,830**	931 U
Cadmium	**774**	**436**	**102**	**1,200**	**669 J**	**340 J**	**2,560 SJ**	**872 J**	**400 J**	**2,600 J**	**1,620 J**	**1,090 J**
Calcium	**7,450,000**	**8,200,000**	**18,600,000**	**10,000,000**	**15,400,000**	**42,500,000**	**10,600,000**	**18,100,000**	**26,000,000**	**11,100,000**	**12,700,000**	**52,400,000**
Chromium	**28,600**	**33,100**	**22,800**	**30,600 J**	**44,500**	**22,000**	**40,600**	**50,500**	**24,200**	**49,400**	**40,100**	**22,300**
Cobalt	9,990 U	7,760 U	8,130 U	10,500 U	10,900 U	7,430 U	15,400 U	10,500 U	7,330 U	13,500 U	15,300 U	9,310 U
Copper	**51,000**	**47,500**	**41,000**	**37,400**	**58,000 J**	**28,200 J**	**66,900 J**	**64,900 J**	**30,000 J**	**79,900 J**	**58,000 J**	**36,600 J**
Cyanide, Total	**650 J**	**700 J**	410 UJ	**550**	**560 J**	370 UJ	**780 J**	**750 J**	**570 J**	680 UJ	760 UJ	470 UJ
Iron	**39,800,000**	**43,300,000**	**39,400,000**	**36,400,000**	**49,200,000**	**29,300,000**	**48,400,000**	**51,100,000**	**31,100,000**	**47,700,000**	**53,000,000**	**23,600,000**
Lead	**72,100**	**104,000**	**15,800**	**59,100**	**75,500**	**25,300**	**167,000**	**112,000**	**42,100**	**149,000**	**111,000**	**118,000**
Magnesium	**3,490,000**	**2,790,000**	**7,020,000**	**4,940,000**	**6,140,000 J**	**14,100,000 J**	**6,620,000 J**	**6,250,000 J**	**9,480,000 J**	**4,690,000 J**	**5,000,000 J**	**19,100,000 J**
Manganese	**824,000**	**773,000**	**781,000**	**662,000**	**959,000**	**649,000**	**994,000**	**1,060,000**	**612,000**	**1,630,000**	**854,000**	**593,000**
Mercury	100 U	78 U	81 U	**118**	**125 J**	74 UJ	154 UJ	105 UJ	73 UJ	135 UJ	**199 J**	**137 J**
Nickel	**24,600**	**28,300**	**25,900**	**19,800**	**30,000**	**19,100**	**25,300**	**36,000**	**18,900**	**26,600**	**34,500**	**25,100**
Potassium	999,000 U	776,000 U	**949,000**	1,050,000 U	**1,380,000**	**1,040,000**	1,540,000 U	**1,160,000**	733,000 U	1,350,000 U	1,530,000 U	**1,460,000**
Selenium	999 UJ	**1,510 J**	**799 J**	2,100 UJ	1,090 U*	743 U*	1,540 U*	1,050 U*	733 U*	1,350 U*	1,530 U*	931 U*
Silver	999 UJ	776 UJ	406 UJ	2,100 U*	1,090 UJ*	743 UJ*	1,540 UJ*	1,050 UJ*	733 UJ*	1,350 UJ*	1,530 UJ*	931 UJ*
Sodium	999,000 U	776,000 U	813,000 U	1,050,000 U	1,090,000 U	743,000 U	1,540,000 U	1,050,000 U	733,000 U	1,350,000 U	1,530,000 U	931,000 U
Thallium	499 U	388 U	406 UJ	525 U	546 U	371 U	772 U	526 U	366 U	675 U	763 U	466 U
Tin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	**13,000**	**15,400**	**17,900**	**5,770**	**11,700**	**15,900**	**8,500**	**7,790**	**6,960**	**6,750**	**11,600**	**19,400**
Zinc	**2,020,000**	**163,000**	**39,900**	**1,350,000**	**169,000 J**	**59,700 J**	**4,950,000 J**	**213,000 J**	**81,200 J**	**4,310,000 J**	**1,030,000 J**	**169,000 J**

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SEDIMENT ANALYTICAL DATA
INORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

	SD-21			SD-22			SD-23			SD-24	
Constituents (ug/kg)	**(0 - 0.5') 6/20/95 FS**	**(0.65 - 1.15') 6/20/95 FS**	**(1.3 - 1.8') 6/20/95 FS**	**(0 - 1.2') 6/19/95 FS**	**(1.2 - 2.4') 6/19/95 FS**	**(2.4 - 3.6') 6/19/95 FS**	**(0 - 1.2') 6/19/95 FS**	**(1.2 - 2.4') 6/19/95 FS**	**(2.4 - 3.6') 6/19/95 FS**	**(0 - 1.5') 6/19/95 FS**	**(1.5 - 3') 6/19/95 FS**
Inorganics											
Aluminum	**13,800,000**	**20,400,000**	**10,300,000**	**9,790,000**	**8,020,000**	**5,530,000**	**8,700,000**	**6,730,000**	**2,840,000**	**10,700,000**	**4,690,000**
Antimony	1,480 UJ*	**1,670 J**	**1,070 J**	1,220 UJ	669 UJ	**349 J**	1,520 UJ	**433 J**	343 UJ	**856 J**	**437 J**
Arsenic	**5,180**	**5,360**	**3,540**	**5,110**	**5,480**	**4,410**	**10,900 J**	**9,030 J**	**7,040 J**	**11,300 J**	**12,100 J**
Barium	**109,000**	**98,600**	**74,700**	**121,000**	**69,000**	**43,900**	**70,800**	**56,200**	**26,000**	**71,900**	**43,200**
Beryllium	**1,480**	**1,770**	875 U	**796**	**736**	668 U	**607**	737 U	686 U	793 U	777 U
Cadmium	**2,630 J**	**1,860 J**	**568 J**	**75**	**395**	**94**	**105**	**227**	**76**	**285**	**130**
Calcium	**8,920,000**	**12,400,000**	**34,800,000**	**42,300,000**	**37,800,000**	**38,400,000**	**40,800,000**	**48,700,000**	**43,100,000**	**41,800,000**	**66,500,000**
Chromium	**40,500**	**40,000**	**22,400**	**74,600**	**52,700**	**20,300**	**46,500 J**	**14,500 J**	**5,900 J**	**18,900 J**	**9,870 J**
Cobalt	14,800 U	16,100 U	8,750 U	6,120 U	6,690 U	6,680 U	6,070 U	7,370 U	6,860 U	7,930 U	7,770 U
Copper	**93,800 J**	**40,900 J**	**25,900 J**	**4,900 J**	**24,400 J**	**6,830 J**	**27,300 J**	**16,200**	**3,800 J**	**15,200 J**	**7,860 J**
Cyanide, Total	740 UJ	**1,000 J**	440 UJ	**2,000 J**	**1,100 J**	**840 J**	**2,400 J**	R	R	R	R
Iron	**49,500,000**	**44,000,000**	**25,000,000**	**18,400,000**	**18,800,000**	**10,700,000**	**24,100,000**	**11,800,000**	**6,310,000**	**15,600,000**	**11,300,000**
Lead	**147,000**	**85,600**	**32,900**	**6,810**	**6,510**	**4,150**	**9,460**	**6,650**	**2,020**	**9,360**	**3,930**
Magnesium	**5,450,000 J**	**7,290,000 J**	**18,000,000 J**	**7,170,000 J**	**9,570,000 J**	**12,600,000 J**	**8,730,000 J**	**15,100,000 J**	**10,500,000 J**	**16,300,000 J**	**17,400,000 J**
Manganese	**1,090,000**	**619,000**	**484,000**	**5,130,000**	**3,150,000**	**1,040,000**	**3,100,000 J**	**629,000 J**	**272,000 J**	**416,000 J**	**532,000 J**
Mercury	**258 J**	161 UJ	**121 J**	61 U	67 U	67 U	61 U	74 U	69 U	79 U	78 U
Nickel	**26,900**	**31,600**	**24,100**	**14,300**	**17,500**	**9,290**	**12,100**	**11,800**	**4,190**	**14,400**	**9,010**
Potassium	1,480,000 U	1,610,000 U	**1,340,000**	**1,090,000**	**954,000**	**784,000**	**1,460,000**	**1,200,000**	686,000 U	**1,900,000**	**901,000**
Selenium	1,480 U*	1,610 U*	875 U*	1,220 UJ	**1,160 J**	334 UJ	1,520 UJ	**550**	343 UJ	793 U*	389 U
Silver	1,480 UJ*	1,610 UJ*	875 UJ*	1,220 UJ	669 UJ	334 UJ	1,520 UJ	368 UJ	343 UJ	793 UJ	389 UJ
Sodium	1,480,000 U	1,610,000 U	875,000 U	612,000 U	669,000 U	668,000 U	607,000 U	737,000 U	686,000 U	793,000 U	777,000 U
Thallium	740 U	803 U	438 U	306 U	334 U	334 U	303 U	368 UJ	343 UJ	397 UJ	389 U
Tin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	**7,400**	**12,800**	**19,300**	**17,100**	**16,000**	**15,000**	**21,500**	**15,700**	**8,550**	**24,900**	**12,300**
Zinc	**4,140,000 J**	**1,910,000 J**	**251,000 J**	**81,800**	**40,800**	**33,600**	**47,400 J**	**40,900 J**	**13,500 J**	**60,200 J**	**24,700 J**

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SEDIMENT ANALYTICAL DATA
INORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

	SD-25			SD-26			SD-27			SD-28		
Constituents (ug/kg)	**(0 - 1.1') 6/19/95 FS**	**(1.1 - 2.2') 6/19/95 FS**	**(2.2 - 3.3') 6/19/95 FS**	**(0 - 1.2') 6/19/95 FS**	**(1.2 - 2.4') 6/19/95 FS**	**(2.4 - 3.6') 6/19/95 FS**	**(0 - 1.3') 6/19/95 FS**	**(1.3 - 2.6') 6/19/95 FS**	**(2.6 - 3.9') 6/19/95 FS**	**(0 - 1.2') 6/19/95 FS**	**(1.2 - 2.4') 6/19/95 FS**	**(2.4 - 3.6') 6/19/95 FS**
Inorganics												
Aluminum	**6,020,000**	**3,400,000**	**3,940,000**	**8,550,000**	**8,660,000**	**2,890,000**	**10,800,000**	**3,160,000**	**2,120,000**	**16,300,000**	**8,960,000**	**3,130,000**
Antimony	**429 J**	**368 J**	**373 J**	390 UJ	**414 J**	336 UJ	782 UJ	353 UJ	340 UJ	**990 J**	718 UJ	**382 J**
Arsenic	**10,800**	**2,550**	**2,740**	**7,850 J**	**6,130 J**	**4,030 J**	**7,190 J**	**5,030 J**	**2,150 J**	**9,290 J**	**8,360 J**	**3,660 J**
Barium	**42,400**	**26,100**	**25,100**	**70,200**	**63,900**	**27,100**	**83,400**	**31,300**	**19,900**	**111,000**	**69,300**	**27,300**
Beryllium	701 U	657 U	695 U	780 U	731 U	672 U	782 U	706 U	681 U	**998**	718 U	669 U
Cadmium	**271**	**76**	**120**	**235**	**155**	**72**	**213**	**94**	**44**	**408**	**256**	**56**
Calcium	**41,500,000**	**26,800,000**	**35,100,000**	**38,300,000**	**48,600,000**	**43,000,000**	**32,100,000**	**47,500,000**	**33,400,000**	**41,200,000**	**30,600,000**	**30,600,000**
Chromium	**12,900**	**7,230**	**8,550**	**16,800 J**	**14,900 J**	**6,310 J**	**19,900 J**	**7,270 J**	**5,100 J**	**28,500 J**	**17,400 J**	**6,750 J**
Cobalt	7,010 U	6,570 U	6,950 U	7,800 U	7,310 U	6,720 U	**8,130**	7,060 U	6,810 U	**9,890**	**7,180**	6,690 U
Copper	**8,600 J**	**4,020 J**	**4,280 J**	**12,800 J**	**10,300 J**	**3,770 J**	**15,400 J**	**4,870 J**	**2,620 J**	**21,500 J**	**14,200 J**	**4,570 J**
Cyanide, Total	350 UJ	330 UJ	350 UJ	R	R	R	R	R	R	R	R	R
Iron	**12,800,000**	**7,270,000**	**6,980,000**	**17,100,000**	**14,400,000**	**6,000,000**	**19,900,000**	**7,360,000**	**4,840,000**	**25,000,000**	**15,200,000**	**5,910,000**
Lead	**6,400**	**2,780**	**2,470**	**8,890**	**5,740**	**2,110**	**9,610**	**2,580**	**1,730**	**13,800**	**8,800**	**2,700**
Magnesium	**17,100,000 J**	**10,500,000 J**	**12,100,000 J**	**12,800,000 J**	**14,200,000 J**	**11,100,000 J**	**11,900,000 J**	**11,700,000 J**	**8,060,000 J**	**15,300,000 J**	**10,400,000 J**	**7,480,000 J**
Manganese	**504,000**	**183,000**	**168,000**	**538,000 J**	**501,000 J**	**246,000 J**	**445,000 J**	**316,000 J**	**188,000 J**	**603,000 J**	**358,000 J**	**195,000 J**
Mercury	70 U	66 U	70 U	78 U	73 U	67 U	78 U	71 U	68 U	91 U	72 U	67 U
Nickel	**11,000**	**5,910**	**7,160**	**14,400**	**12,400**	**4,430**	**16,600**	**6,290**	**3,610**	**23,200**	**15,400**	**5,150**
Potassium	**856,000**	657,000 U	695,000 U	**1,240,000**	**1,660,000**	672,000 U	**1,610,000**	706,000 U	681,000 U	**2,780,000**	**1,490,000**	669,000 U
Selenium	350 UJ	328 UJ	348 UJ	**414**	365 U	336 U	782 UJ	353 UJ	340 UJ	908 U*	718 U*	334 UJ
Silver	350 UJ	328 UJ	348 U	390 UJ	365 UJ	336 UJ	782 UJ	353 UJ	340 UJ	908 UJ	718 UJ	334 UJ
Sodium	701,000 U	657,000 U	695,000 U	780,000 U	731,000 U	672,000 U	782,000 U	706,000 U	681,000 U	908,000 U	718,000 U	669,000 U
Thallium	350 UJ	328 U	348 U	390 U	365 U	336 U	391 U	353 U	340 U	454 U	359 U	334 U
Tin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	**17,300**	**12,100**	**14,400**	**18,200**	**19,000**	**7,920**	**24,800**	**9,150**	**6,210**	**33,500**	**20,600**	**8,930**
Zinc	**44,900**	**20,700**	**23,200**	**53,000 J**	**34,800 J**	**14,200 J**	**55,300 J**	**16,300 J**	**10,200 J**	**87,800 J**	**52,600 J**	**16,200 J**

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TABLE A-7
SEDIMENT ANALYTICAL DATA
INORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Constituents (ug/kg)	SD-29			SD-30			SD-31			SD-32			
	(0 - 1.2') 6/19/95 FS	(1.2 - 2.4') 6/19/95 FS	(2.4 - 3.6') 6/19/95 FS	(0 - 1.1') 6/19/95 FS	(1.1 - 2.2') 6/19/95 FS	(2.2 - 3.3') 6/19/95 FS	(0 - 1.1') 6/19/95 FS	(1.1 - 2.2') 6/19/95 FS	(2.2 - 3.3') 6/19/95 FS	(0 - 1.4') 6/19/95 FS	(0 - 1.4') 6/19/95 DUP	(1.4 - 2.8') 6/19/95 FS	(2.8 - 4.2') 6/19/95 FS
Inorganics													
Aluminum	**9,560,000**	**5,560,000**	**6,040,000**	**10,200,000**	**1,090,000**	**2,830,000**	**9,580,000**	**3,670,000**	**1,520,000**	**17,300,000**	**12,800,000**	**4,090,000**	**2,030,000**
Antimony	**599 J**	359 UJ	369 UJ	**443 J**	314 U	329 UJ	**580 J**	**357 J**	307 UJ	**785 J**	**683 J**	330 UJ	**381 J**
Arsenic	**8,520 J**	**7,580 J**	**6,570 J**	**5,350 J**	**2,690 J**	**2,770 J**	**7,630 J**	**3,580 J**	**1,530 J**	**15,900 J**	**12,100 J**	**2,720 J**	**2,070 J**
Barium	**71,700**	**45,000**	**53,300**	**76,200**	**12,500**	**26,700**	**81,500**	**37,000**	**13,000**	**114,000**	**103,000**	**36,500**	**21,000**
Beryllium	815 U	717 U	739 U	862 U	628 U	659 U	883 U	681 U	614 U	1,030 U	1,070 U	659 U	623 U
Cadmium	**210**	**148**	**106**	**257**	**36**	**64**	**261**	**72**	31 U	**390**	**411**	**118**	**47**
Calcium	**32,600,000**	**56,800,000**	**66,600,000**	**44,500,000**	**23,100,000**	**40,400,000**	**51,500,000**	**52,400,000**	**22,000,000**	**35,000,000**	**34,700,000**	**18,000,000**	**30,600,000**
Chromium	**18,900 J**	**10,800 J**	**10,900 J**	**17,600 J**	**2,890 J**	**5,730 J**	**17,200**	**7,280**	**3,260**	**30,400**	**24,200**	**8,050**	**4,240**
Cobalt	8,150 U	7,170 U	7,390 U	8,620 U	6,280 U	6,590 U	8,830 U	6,810 U	6,140 U	10,300 U	10,700 U	6,590 U	6,230 U
Copper	**12,700 J**	**7,410 J**	**16,600 J**	**12,200 J**	**1,330 J**	**4,050 J**	**15,600**	**6,600**	**2,460**	**22,800**	**22,200**	**7,850**	**3,680**
Cyanide, Total	R	R	R	R	R	R	440 UJ	340 UJ	310 UJ	510 UJ	530 UJ	330 UJ	**310 J**
Iron	**21,500,000**	**8,460,000**	**11,500,000**	**16,600,000**	**2,960,000**	**5,330,000**	**19,000,000**	**7,170,000**	**3,420,000**	**25,900,000**	**23,600,000**	**7,300,000**	**4,280,000**
Lead	**8,440**	**3,870**	**3,700**	**7,710**	**1,060**	**2,200**	**8,580**	**2,960**	**1,210**	**13,600**	**13,100**	**5,090**	**1,860**
Magnesium	**10,100,000 J**	**16,400,000 J**	**18,400,000 J**	**14,800,000 J**	**4,780,000 J**	**9,570,000 J**	**18,900,000**	**13,600,000**	**5,240,000**	**13,300,000**	**12,300,000**	**5,040,000**	**7,310,000**
Manganese	**530,000 J**	**321,000 J**	**524,000 J**	**536,000 J**	**115,000 J**	**277,000 J**	**511,000**	**278,000**	**102,000**	**527,000**	**512,000**	**145,000**	**164,000**
Mercury	82 U	72 U	74 U	86 U	63 U	66 U	88 U	68 U	61 U	103 U	107 U	66 U	62 U
Nickel	**13,900**	**9,320**	**9,160**	**14,800**	2,510 U	**5,670**	**16,100**	**6,190**	**2,700**	**25,700**	**21,400**	**7,060**	**3,860**
Potassium	**1,240,000**	**1,120,000**	**1,320,000**	**1,570,000**	628,000 U	659,000 U	**1,440,000**	**770,000**	614,000 U	**2,890,000**	**1,800,000**	659,000 U	623,000 U
Selenium	408 UJ	359 U	369 UJ	431 UJ	314 UJ	329 UJ	442 U	340 U	307 U	513 U	534 U	330 U	311 U
Silver	408 UJ	359 UJ	369 UJ	431 UJ	314 U	329 U	442 UJ	340 UJ	307 UJ	513 UJ	534 UJ	330 UJ	311 UJ
Sodium	815,000 U	717,000 U	739,000 U	862,000 U	628,000 U	659,000 U	883,000 U	681,000 U	614,000 U	1,030,000 U	1,070,000 U	659,000 U	623,000 U
Thallium	408 U	359 U	369 UJ	431 UJ	314 UJ	329 UJ	442 UJ	340 UJ	307 UJ	513 UJ	534 UJ	330 UJ	311 UJ
Tin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	**17,600**	**13,700**	**13,300**	**22,000**	**4,210**	**8,090**	**22,300**	**12,000**	**5,960**	**36,300**	**27,800**	**10,700**	**6,730**
Zinc	**109,000 J**	**27,500 J**	**25,500 J**	**55,400 J**	**6,030 J**	**13,000 J**	**53,700**	**15,900**	**7,490**	**95,100**	**93,400**	**23,000**	**9,160**

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TABLE A-7
SEDIMENT ANALYTICAL DATA
INORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

	SD-33			SD-34			SD-35			SD-36		
Constituents (ug/kg)	**(0 - 1.3') 6/19/95 FS**	**(1.3 - 2.6') 6/19/95 FS**	**(2.6 - 3.9') 6/19/95 FS**	**(0 - 1.3') 6/21/95 FS**	**(1.3 - 2.6') 6/21/95 FS**	**(2.6 - 3.9') 6/21/95 FS**	**(0 - 1.5') 6/21/95 FS**	**(1.5 - 3') 6/21/95 FS**	**(3 - 4.5') 6/21/95 FS**	**(0 - 1.2') 6/19/95 FS**	**(1.2 - 2.4') 6/19/95 FS**	**(2.4 - 3.6') 6/19/95 FS**
Inorganics												
Aluminum	**19,200,000**	**13,200,000**	**2,120,000**	**8,110,000 J**	**7,280,000 J**	**5,190,000 J**	**13,500,000 J**	**8,320,000 J**	**7,230,000 J**	**4,270,000**	**4,450,000**	**7,250,000**
Antimony	**933 J**	**618 J**	295 UJ	714 UJ	746 UJ	**364 J**	992 UJ	704 UJ	**470 J**	361 UJ	**375 J**	**467 J**
Arsenic	**13,600 J**	**6,460 J**	**2,800 J**	**4,890 J**	**5,300 J**	**5,240 J**	**6,400 J**	**5,990 J**	**4,170 J**	**2,680 J**	**2,570 J**	**4,270 J**
Barium	**129,000**	**104,000**	**16,800**	**55,800**	**60,700**	**44,100**	**92,700**	**63,100**	**66,500**	**35,800**	**36,900**	**68,700**
Beryllium	1,060 U	819 U	591 U	**999**	746 U	699 U	**992**	704 U	738 U	722 U	698 U	757 U
Cadmium	**489**	**264**	**37**	**219**	**240**	**134**	**504**	**501**	**221**	**95**	**89**	**142**
Calcium	**43,800,000**	**38,500,000**	**11,200,000**	**14,200,000**	**53,400,000**	**58,400,000**	**40,900,000**	**29,500,000**	**59,500,000**	**31,300,000**	**31,900,000**	**75,600,000**
Chromium	**33,600**	**23,500**	**4,140**	**26,400 J**	**17,800 J**	**10,400 J**	**30,600 J**	**22,000 J**	**19,900 J**	**8,230**	**8,240**	**13,300**
Cobalt	**11,100**	8,190 U	5,910 U	7,140 U	7,460 U	6,990 U	9,920 U	7,040 U	7,380 U	7,220 U	6,980 U	7,570 U
Copper	**25,700**	**18,300**	**2,840**	**14,700**	**13,700**	**8,040**	**26,900**	**20,000**	**15,500**	**7,070**	**6,700**	**11,700**
Cyanide, Total	530 UJ	410 UJ	300 UJ	360 U	370 U	350 U	500 U	350 U	370 U	360 UJ	350 UJ	380 UJ
Iron	**30,900,000**	**19,300,000**	**3,650,000**	**17,200,000**	**14,000,000**	**9,470,000**	**31,100,000**	**21,400,000**	**15,500,000**	**7,370,000**	**7,570,000**	**12,900,000**
Lead	**16,400**	**12,100**	**1,890**	**10,900**	**9,480**	**4,100**	**21,300**	**20,300**	**14,300**	**3,680**	**3,710**	**5,240**
Magnesium	**16,600,000**	**13,700,000**	**3,160,000**	**4,350,000**	**18,500,000**	**19,200,000**	**13,400,000**	**9,570,000**	**19,200,000**	**9,320,000**	**9,480,000**	**23,400,000**
Manganese	**660,000**	**354,000**	**76,600**	**459,000**	**488,000**	**365,000**	**602,000**	**418,000**	**536,000**	**202,000**	**206,000**	**475,000**
Mercury	106 U	82 U	59 U	71 U	**89**	**83**	**118**	**96**	**88**	72 U	70 U	76 U
Nickel	**26,700**	**18,200**	**3,780**	**14,400**	**13,700**	**10,300**	**26,400**	**16,300**	**15,700**	**7,000**	**6,350**	**12,500**
Potassium	**2,990,000**	**2,130,000**	591,000 U	**887,000**	**1,210,000**	**980,000**	**2,080,000**	**1,190,000**	**1,160,000**	**796,000**	**836,000**	**1,420,000**
Selenium	532 U	409 U	295 U	714 UJ	746 UJ	349 UJ	992 UJ	704 UJ	369 UJ	361 U	349 U	379 U
Silver	532 UJ	409 UJ	295 UJ	714 U*	746 U*	349 U	992 U*	704 U*	369 U	361 UJ	349 UJ	379 UJ
Sodium	1,060,000 U	819,000 U	591,000 U	714,000 U	746,000 U	699,000 U	**1,110,000**	**732,000**	738,000 U	722,000 U	698,000 U	757,000 U
Thallium	532 UJ	409 UJ	295 UJ	357 U	373 UW	349 U	496 U	352 U	369 U	361 UJ	349 UJ	379 UJ
Tin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	**38,200**	**29,100**	**7,030**	**10,900**	**16,100**	**13,200**	**17,600**	**11,700**	**16,400**	**11,700**	**12,100**	**19,000**
Zinc	**143,000**	**58,600**	**10,500**	**169,000**	**49,600**	**24,100**	**247,000**	**66,600**	**51,700**	**23,500**	**18,900**	**32,200**

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TABLE A-7
SEDIMENT ANALYTICAL DATA
INORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Constituents (ug/kg)	SD-37				SD-38		SD-39			SD-40		SD-41	
	(0 - 1.3') 6/19/95	(1.3 - 2.6') 6/19/95		(2.6 - 3.9') 6/19/95	(0 - 1.2') 6/19/95	(1.2 - 2.4') 6/19/95	(0 - 1') 6/22/95	(1 - 2') 6/22/95		(0 - 1.1') 6/22/95	(1.1 - 2.2') 6/22/95	(0 - 1') 6/22/95	(1 - 2') 6/22/95
	FS	FS	DUP	FS	FS	FS	FS	FS	DUP	FS	FS	FS	FS
Inorganics													
Aluminum	**5,560,000**	**6,360,000**	**8,330,000**	**5,080,000**	**12,300,000**	**5,750,000**	**1,160,000**	**9,600,000**	**1,040,000**	**9,620,000**	**11,300,000**	**12,500,000**	**4,720,000**
Antimony	**510 J**	**394 J**	373 UJ	330 UJ	**839 J**	330 UJ	305 UJ	2,680 UJ*	310 UJ	**737 J**	**510 J**	**940 J**	**524 J**
Arsenic	**7,520 J**	**6,790 J**	**4,700 J**	**4,750 J**	**6,540 J**	**3,400 J**	**1,250**	**1,640**	**1,320**	**4,600**	**3,550**	**5,510**	**2,320**
Barium	**43,400**	**57,200**	**63,900**	**45,400**	**100,000**	**40,500**	**11,000**	**105,000 J**	**7,930 J**	**76,900**	**72,900**	**47,100**	**21,200**
Beryllium	707 U	732 U	746 U	659 U	999 U	660 U	611 U	**642**	619 U	893 U	683 U	**822**	601 U
Cadmium	**148**	**153**	**149**	**132**	**350**	**99**	31 U	27 U	31 U	**181**	**109**	**219**	**84**
Calcium	**20,900,000**	**60,300,000**	**62,800,000**	**41,600,000**	**59,300,000**	**39,800,000**	**9,510,000 J**	**42,700,000 J**	**9,330,000 J**	**16,000,000 J**	**51,200,000 J**	**24,700,000 J**	**7,910,000 J**
Chromium	**9,470**	**11,800**	**13,900**	**9,560**	**22,000**	**10,900**	**2,870**	**101,000 J**	**2,290 J**	**21,600**	**21,000**	**34,700**	**20,700**
Cobalt	7,070 U	7,320 U	7,460 U	6,590 U	9,990 U	6,600 U	6,110 U	5,350 U	6,190 U	8,930 U	**7,170**	**7,120**	6,010 U
Copper	**8,910**	**9,450**	**9,920**	**9,030**	**36,800**	**10,800**	**2,690**	**19,300 J**	**1,490 J**	**17,800**	**14,700**	**38,300**	**11,500**
Cyanide, Total	**3,500 J**	370 UJ	370 UJ	330 UJ	500 UJ	330 UJ	310 U	270 U	310 U	450 U	340 U	340 U	300 U
Iron	**10,200,000**	**12,300,000**	**13,200,000**	**9,440,000**	**21,400,000**	**9,970,000**	**2,360,000**	**23,300,000 J**	**2,120,000 J**	**19,100,000**	**16,800,000**	**39,800,000**	**14,600,000**
Lead	**5,390**	**5,340**	**5,560**	**4,250**	**14,000**	**4,580**	**2,150**	**14,400 J**	**1,060 J**	**12,800**	**6,970**	**21,800**	**9,130**
Magnesium	**6,970,000**	**18,700,000**	**19,700,000**	**14,000,000**	**16,900,000**	**12,900,000**	**1,690,000**	**2,960,000**	**1,560,000**	**5,920,000**	**16,400,000**	**11,500,000**	**2,370,000**
Manganese	**240,000**	**444,000**	**466,000**	**309,000**	**587,000**	**204,000**	**39,400**	**8,710,000 J**	**24,200 J**	**263,000**	**319,000**	**441,000**	**508,000**
Mercury	71 U	73 U	75 U	66 U	100 U	66 U	61 U	54 U	62 U	89 U	68 U	**91**	60 U
Nickel	**8,060**	**11,800**	**12,900**	**11,000**	**20,500**	**10,800**	**2,990**	**44,400 J**	**2,540 J**	**19,100**	**20,000**	**33,200**	**13,800**
Potassium	**920,000**	**1,180,000**	**1,850,000**	**808,000**	**2,140,000**	**1,180,000**	611,000 U	**917,000**	619,000 U	**926,000**	**1,730,000**	**2,020,000**	601,000 U
Selenium	353 U	366 U	373 U	330 U	500 U	330 U	305 UJ	2,680 U*	310 U	893 U*	683 U*	1,370 UJ*	601 UJ*
Silver	353 UJ	366 U	373 UJ	330 UJ	500 U	330 UJ	305 UJ	2,680 UJ*	310 UJ	446 UJ	341 UJ	685 UJ	300 UJ
Sodium	707,000 U	732,000 UJ	746,000 U	659,000 U	999,000 U	660,000 U	611,000 U	**661,000**	619,000 U	893,000 U	683,000 U	**982,000**	601,000 U
Thallium	353 UJ	366 UJ	373 UJ	330 UJ	500 UJ	330 UJ	305 U	268 U	310 U	446 U	341 UJ	343 UJ	300 U
Tin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	**12,900**	**16,100**	**21,300**	**13,800**	**28,600**	**15,600**	**3,480**	**20,000 J**	**3,030 J**	**22,300**	**27,600**	**20,400**	**8,290**
Zinc	**25,800**	**26,400**	**27,700**	**31,500**	**68,800**	**23,200**	**7,690**	**147,000 J**	**5,700 J**	**66,700**	**38,800**	**249,000**	**59,900**

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SEDIMENT ANALYTICAL DATA
INORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

	SD-42		SD-43		SD-44		SD-45		SD-46			SD-47	
Constituents (ug/kg)	**(0 - 1') 6/22/95 FS**	**(1 - 2') 6/22/95 FS**	**(0 - 0.8') 6/15/95 FS**	**(0.8 - 1.6') 6/15/95 FS**	**(0 - 0.9') 6/15/95 FS**	**(0.9 - 1.8') 6/15/95 FS**	**(0 - 0.7') 6/15/95 FS**	**(0.7 - 1.4') 6/15/95 FS**	**(0 - 1.5') 6/15/95 FS**	**(1.5 - 3') 6/15/95 FS**	**(3 - 4.5') 6/15/95 FS**	**(0 - 1.5') 6/15/95 FS**	**(1.5 - 3') 6/15/95 FS**
Inorganics													
Aluminum	**2,150,000**	**8,400,000**	**5,980,000**	**5,620,000**	**12,300,000**	**12,800,000**	**9,790,000**	**9,590,000**	**9,890,000**	**6,180,000**	**4,200,000**	**2,950,000**	**3,640,000**
Antimony	**357 J**	**493 J**	**2,310 J**	**892 J**	**1,040 J**	**822 J**	689 UJ*	1,320 UJ*	957 UJ*	743 UJ*	670 UJ*	623 UJ*	668 UJ*
Arsenic	**845**	**2,940**	**4,830**	**3,420**	**6,850 J**	**4,940 SJ**	**4,300 J**	**4,480 J**	**8,840 J**	**9,390 J**	2,680 UJ	**4,060 J**	**3,980 J**
Barium	**11,900**	**38,300**	**66,200**	**66,300**	**142,000**	**150,000**	**76,200**	**86,600**	**109,000**	**71,500**	**41,400**	**35,800**	**41,400**
Beryllium	525 U	638 U	707 U	594 U	1,010 U	**793**	689 U	658 U	957 U	743 U	670 U	623 U	668 U
Cadmium	**58**	**110**	**240**	**138**	**447**	**299**	**170**	**170**	**400**	**281**	**76**	**72**	**80**
Calcium	**1,350,000 J**	**37,400,000 J**	**24,400,000**	**32,800,000**	**32,500,000**	**54,000,000**	**55,300,000**	**33,400,000**	**40,000,000**	**47,400,000**	**58,100,000**	**28,400,000**	**46,400,000**
Chromium	**8,400**	**22,400**	**35,300**	**36,900**	**45,100**	**71,500**	**19,400**	**18,200**	**34,400**	**15,800**	**8,970**	**8,100**	**8,480**
Cobalt	5,250 U	6,380 U	7,070 U	5,940 U	10,100 U	7,930 U	**6,960**	**7,310**	9,570 U	7,430 U	6,700 U	6,230 U	6,680 U
Copper	**10,700**	**18,500**	**47,000 J**	**22,300 J**	**45,000 J**	**24,900 J**	**11,600 J**	**11,300 J**	**33,400 J**	**16,600 J**	**6,760**	**6,110**	**6,880**
Cyanide, Total	260 U	**850**	350 UJ	300 UJ	500 UJ	250 UJ	340 UJ	**500 J**	480 UJ	370 UJ	330 UJ	310 UJ	330 UJ
Iron	**9,090,000**	**17,300,000**	**94,400,000**	**21,100,000**	**48,600,000**	**26,600,000**	**14,600,000**	**16,200,000**	**35,200,000**	**14,600,000**	**8,160,000**	**8,530,000**	**8,770,000**
Lead	**4,450**	**10,100**	**13,400**	**20,700**	**32,500**	**32,400**	**5,690**	**6,930**	**19,800**	**7,600**	**2,990**	**3,580**	**3,640**
Magnesium	**755,000**	**12,400,000**	**5,760,000 J**	**4,900,000 J**	**12,200,000**	**17,600,000**	**20,700,000**	**15,100,000**	**12,000,000**	**15,600,000**	**15,000,000**	**5,160,000**	**12,600,000**
Manganese	**161,000**	**364,000**	**954,000**	**1,480,000**	**887,000**	**2,390,000**	**409,000**	**294,000**	**781,000**	**525,000**	**318,000**	**248,000**	**293,000**
Mercury	53 U	64 U	71 U	59 U	**111**	**95**	69 UJ	66 U	**99**	74 U	67 UJ	62 UJ	67 UJ
Nickel	**9,130**	**17,500**	**26,400**	**14,500**	**36,200**	**32,800**	**18,100**	**16,800**	**26,400**	**16,300**	**10,200**	**7,790**	**9,080**
Potassium	525,000 U	**1,760,000**	**1,180,000**	**1,220,000**	**2,190,000**	**2,660,000**	**2,170,000**	**1,940,000**	**1,710,000**	**757,000**	**801,000**	623,000 U	668,000 U
Selenium	262 U	319 U	**4,580 J**	594 UJ	1,010 U*	396 U*	689 UJ*	1,320 U*	957 U*	743 U*	670 U*	623 U*	668 U*
Silver	262 UJ	319 UJ	1,410 UJ	594 UJ	1,010 UJ*	396 UJ*	689 UJ*	1,320 U*	957 UJ*	743 UJ*	670 UJ*	623 U*	668 UJ*
Sodium	525,000 U	638,000 U	**899,000**	**616,000**	**1,300,000**	**836,000**	689,000 U	658,000 U	957,000 U	743,000 U	670,000 U	623,000 U	668,000 U
Thallium	262 U	319 U	353 U	297 U	504 U	396 U	345 U	329 UJ	478 U	371 U	335 U	311 U	334 U
Tin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	**4,510**	**17,700**	1,410 U	**10,300**	**23,400**	**32,700**	**24,100**	**23,800**	**19,800**	**17,800**	**12,000**	**8,290**	**10,100**
Zinc	**64,000**	**80,700**	**70,800**	**36,000**	**263,000**	**130,000**	**36,500**	**34,800**	**123,000**	**43,500**	**18,800**	**19,400**	**21,200**

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TABLE A-7
SEDIMENT ANALYTICAL DATA
INORGANIC CONSTITUENTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Constituents (ug/kg)	SD-48 (0 - 1.3') 6/15/95 FS	SD-48 (1.3 - 2.6') 6/15/95 FS	SD-59 (0 - 0.5') 8/10/00 FS	SD-60 (0 - 0.5') 8/10/00 FS	SD-61 (0 - 0.5') 8/10/00 FS	SD-62 (0 - 0.5') 8/10/00 FS	SD-62 (0 - 0.5') 8/10/00 DUP	SD-64 (0 - 0.5') 8/10/00 FS	SD-65 (0 - 0.5') 8/10/00 FS
Inorganics									
Aluminum	**5,110,000**	**7,490,000**	**10,600,000**	**3,190,000**	**6,620,000**	**6,530,000**	**7,490,000**	**16,400,000**	**2,760,000**
Antimony	640 UJ*	670 UJ*	10,000 UJ	10,100 UJ	9,700 UJ	**35,800 J**	**30,400 J**	12,500 UJ	9,700 UJ
Arsenic	**2,840 J**	**6,330 J**	**6,500**	**3,400**	**4,500**	**12,500**	**11,700**	**11,000**	**2,300**
Barium	**47,700**	**76,800**	**77,700**	**79,900**	**45,800**	**57,000**	**68,400**	**115,000**	**23,900 B**
Beryllium	640 U	670 U	840 U	840 U	810 U	640 U	700 U	1,000 U	810 U
Cadmium	**163**	**231**	**190 B**	840 U	**180 B**	1,300 U	700 U	1,000 U	810 U
Calcium	**40,300,000**	**61,500,000**	**9,390,000**	**30,300,000**	**8,000,000**	**27,300,000**	**38,000,000**	**30,600,000**	**11,700,000**
Chromium	**13,400**	**16,500**	**20,100**	**13,900**	**12,600**	**119,000**	**136,000**	**28,700**	**16,600**
Cobalt	6,400 U	6,700 U	**5,800 B**	**1,900 B**	**3,500 B**	**6,100 B**	**5,800 B**	**8,800 B**	**1,700 B**
Copper	**10,900 J**	**12,900 J**	**21,700**	**24,400**	**14,100**	**1,140,000**	**1,170,000**	**26,700**	**8,700**
Cyanide, Total	320 UJ	330 UJ	840 U	840 U	810 U	**270 B**	700 U	1,000 U	810 U
Iron	**12,000,000**	**13,400,000**	**14,500,000**	**24,800,000**	**8,940,000**	**72,500,000**	**71,700,000**	**22,800,000**	**5,720,000**
Lead	**8,710**	**6,310**	**25,100**	**14,300**	**21,400**	**237,000**	**245,000**	**21,300**	**7,000**
Magnesium	**11,900,000**	**19,700,000**	**4,730,000**	**1,810,000**	**3,400,000**	**1,300,000**	**1,530,000**	**12,400,000**	**1,830,000**
Manganese	**387,000**	**554,000**	**211,000 J**	**329,000 J**	**92,700**	**3,800,000 J**	**4,480,000 J**	**363,000 J**	**732,000 J**
Mercury	64 U	67 U	**85 B**	**16 B**	**46 B**	**120 B**	**120 B**	**75 B**	**15 B**
Nickel	**13,600**	**17,500**	**17,700**	**17,600**	**11,400**	**36,100**	**30,300**	**24,900**	**4,000 B**
Potassium	**906,000**	**973,000**	**1,530,000**	**426,000 B**	**1,200,000**	**629,000 B**	**736,000**	**2,750,000**	**441,000 B**
Selenium	640 U*	670 U*	**2,000**	**1,600**	**880**	1,300 U	**4,600**	**2,500**	**560 B**
Silver	640 UJ*	670 UJ*	1,700 U	1,700 U	1,600 U	**10,100**	**13,400**	2,100 U	1,600 U
Sodium	640,000 U	670,000 U	**240,000 B**	**313,000 B**	**558,000 B**	**196,000 B**	**236,000 B**	**759,000 B**	**166,000 B**
Thallium	320 U	335 UW	**1,700 J**	**1,400 JB**	1,600 UJ	**880 BJ**	**6,500 J**	**2,200 J**	**1,200 JB**
Tin	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	**12,700**	**18,900**	**21,600**	**6,300 B**	**16,200**	**15,400**	**18,600**	**36,100**	**7,100 B**
Zinc	**35,900**	**36,200**	**68,400 J**	**91,400 J**	**47,200 J**	**179,000 J**	**123,000 J**	**73,900 J**	**19,700 J**

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TABLE A-8
SEDIMENT ANALYTICAL DATA
ORGANIC COMPOUNDS SEDIMENT ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

	SD-1			SD-2			SD-3				SD-4		SD-5			SD-6		
	(0 - 1.5') 6/15/95	(1.5 - 3') 6/15/95	(3 - 4.5') 6/15/95	(0 - 1.7') 6/15/95	(1.7 - 3.4') 6/15/95	(3.4 - 5') 6/15/95	(0 - 1.3') 6/15/95		(1.3 - 2.6') 6/15/95	(2.6 - 3.9') 6/15/95	(0 - 1.5') 6/19/95	(1.5 - 3') 6/19/95	(0 - 1.8') 6/21/95	(1.8 - 3.6') 6/21/95	(3.6 - 5.4') 6/21/95	(0 - 1.6') 6/21/95	(1.6 - 3.2') 6/21/95	(3.2 - 4.8') 6/21/95
Constituents (ug/kg)	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**DUP**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**
VOCs																		
1,1,1,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	8.2 UJ	7.6 UJ	7.0 U	8.2 U	9.7 U	6.3 U	36 U	11 U	7.3 U	6.2 U	2,800 UJ	890 U	6.7 U	7.9 U	6.9 U	7.8 U	8.1 U	6.8 U
1,1,2,2-Tetrachloroethane	8.2 UJ	7.6 UJ	7.0 UJ	8.2 U	9.7 U	6.3 U	36 UJ	11 U	7.3 U	6.2 U	2,800 UJ	890 U	6.7 U	7.9 U	6.9 U	7.8 U	8.1 U	6.8 U
1,1,2-Trichloroethane	8.2 UJ	7.6 UJ	7.0 U	8.2 U	9.7 U	6.3 U	36 U	11 U	7.3 U	6.2 U	2,800 U	890 U	6.7 U	7.9 U	6.9 U	7.8 U	8.1 U	6.8 U
1,1-Dichloroethane	8.2 UJ	7.6 UJ	7.0 U	8.2 U	9.7 U	6.3 U	36 U	11 U	7.3 U	6.2 U	2,800 U	890 U	6.7 U	7.9 U	6.9 U	7.8 U	8.1 U	6.8 U
1,1-Dichloroethene	8.2 UJ	7.6 UJ	7.0 U	8.2 U	9.7 U	6.3 U	36 U	11 U	7.3 U	6.2 U	2,800 U	890 U	6.7 U	7.9 U	6.9 U	7.8 U	8.1 U	6.8 U
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	8.2 UJ	7.6 UJ	7.0 U	8.2 U	9.7 U	6.3 U	36 U	11 U	7.3 U	6.2 U	2,800 U	890 U	6.7 U	7.9 U	6.9 U	7.8 U	8.1 U	6.8 U
1,2-Dichloroethane	8.2 UJ	7.6 UJ	7.0 U	8.2 U	9.7 U	6.3 U	36 U	11 U	7.3 U	6.2 U	2,800 U	890 U	6.7 U	7.9 U	6.9 U	7.8 U	8.1 U	6.8 U
1,2-Dichloroethene, Total	8.2 UJ	7.6 UJ	7.0 U	8.2 U	9.7 U	6.3 U	36 U	11 U	7.3 U	6.2 U	2,800 U	890 U	6.7 U	7.9 U	6.9 U	7.8 U	8.1 U	6.8 U
1,2-Dichloropropane	8.2 UJ	7.6 UJ	7.0 U	8.2 U	9.7 U	6.3 U	36 U	11 U	7.3 U	6.2 U	2,800 U	890 U	6.7 U	7.9 U	6.9 U	7.8 U	8.1 U	6.8 U
1,3-Dichlorobenzene	8.2 UJ	7.6 UJ	7.0 U	8.2 U	9.7 U	6.3 U	36 U	11 U	7.3 U	6.2 U	2,800 U	890 U	6.7 U	7.9 U	6.9 U	7.8 U	8.1 U	6.8 U
1,4-Dichlorobenzene	8.2 UJ	7.6 UJ	7.0 U	8.2 U	9.7 U	6.3 U	36 U	11 U	7.3 U	6.2 U	2,800 U	890 U	6.7 U	7.9 U	6.9 U	7.8 U	8.1 U	6.8 U
1,4-Dioxane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	**38 J**	**33 J**	70 UJ	**14 J**	**39 J**	**3.2 J**	360 UJ	110 U	**7.4 J**	**3.1 J**	28,000 U	8,900 UJ	67 UJ	**4.6 J**	**6.4 J**	78 U	**6.9 J**	**8.6 J**
2-Chloro-1,3-butadiene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	82 UJ	76 UJ	70 UJ	82 UJ	97 UJ	63 UJ	360 UJ	110 U	73 UJ	62 UJ	28,000 UJ	8,900 UJ	67 UJ	79 U	69 U	78 U	81 U	68 U
3-Chloro-1-propene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	82 UJ	76 UJ	70 UJ	82 UJ	97 UJ	63 UJ	360 UJ	110 U	73 UJ	62 UJ	28,000 U	8,900 U	67 U	79 U	69 U	78 U	81 U	68 U
Acetone	**270 J**	**170 J**	**25 J**	**81 J**	**260 J**	**21 J**	**330 J**	19 UJ	**38 J**	**15 J**	28,000 U	8,900 UJ	**4.6 J**	79 U	68 U	78 U	81 U	68 U
Acetonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	8.2 UJ	7.6 UJ	7.0 U	8.2 U	9.7 U	6.3 U	36 U	11 U	7.3 U	6.2 U	**1,800 J**	890 U	6.7 U	7.9 U	6.9 U	**10**	8.1 U	6.8 U
Bromodichloromethane	8.2 UJ	7.6 UJ	7.0 U	8.2 U	9.7 U	6.3 U	36 U	11 U	7.3 U	6.2 U	2,800 UJ	890 U	6.7 U	7.9 U	6.9 U	7.8 U	8.1 U	6.8 U
Bromoform	8.2 UJ	7.6 UJ	7.0 U	8.2 U	9.7 U	6.3 U	36 U	11 U	7.3 U	6.2 U	2,800 U	890 U	6.7 U	7.9 U	6.9 U	7.8 U	8.1 U	6.8 U
Bromomethane	8.2 UJ	7.6 UJ	7.0 UJ	8.2 U	9.7 U	6.3 U	36 UJ	11 UJ	7.3 U	6.2 U	2,800 U	890 UJ	6.7 U	7.9 U	6.9 U	7.8 U	8.1 U	6.8 U
Carbon disulfide	8.2 UJ	7.6 UJ	7.0 U	8.2 U	**6.0 J**	6.3 U	36 U	11 U	7.3 U	6.2 U	2,800 UJ	890 UJ	6.7 U	7.9 U	6.9 U	**4.5 J**	8.1 U	6.8 U
Carbon tetrachloride	8.2 UJ	7.6 UJ	7.0 U	8.2 U	9.7 U	6.3 U	36 U	11 U	7.3 U	6.2 U	2,800 UJ	890 U	6.7 U	7.9 U	6.9 U	7.8 U	8.1 U	6.8 U
Chlorobenzene	8.2 UJ	7.6 UJ	7.0 U	8.2 U	9.7 U	6.3 U	36 U	11 U	7.3 U	6.2 U	2,800 U	890 U	6.7 U	7.9 U	6.9 U	7.8 U	8.1 U	6.8 U
Chlorodibromomethane	8.2 UJ	7.6 UJ	7.0 U	8.2 U	9.7 U	6.3 U	36 U	11 U	7.3 U	6.2 U	2,800 U	890 U	6.7 U	7.9 U	6.9 U	7.8 U	8.1 U	6.8 U
Chloroethane	8.2 UJ	7.6 UJ	7.0 UJ	8.2 U	9.7 U	6.3 U	36 UJ	11 UJ	7.3 U	6.2 U	2,800 U	**890 J**	6.7 U	7.9 U	6.9 U	7.8 U	8.1 U	6.8 U
Chloroform	8.2 UJ	7.6 UJ	7.0 U	8.2 U	9.7 U	6.3 U	36 U	11 U	7.3 U	6.2 U	2,800 U	890 U	6.7 U	7.9 U	6.9 U	7.8 U	8.1 U	6.8 U
Chloromethane	8.2 UJ	7.6 UJ	7.0 UJ	8.2 U	9.7 U	6.3 U	36 UJ	11 UJ	7.3 U	6.2 U	2,800 U	890 UJ	6.7 U	7.9 U	6.9 U	7.8 U	8.1 U	6.8 U
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	8.2 UJ	7.6 UJ	7.0 U	8.2 U	9.7 U	6.3 U	36 U	11 U	7.3 U	6.2 U	2,800 U	890 U	6.7 U	7.9 U	6.9 U	7.8 U	8.1 U	6.8 U
Dibromomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	8.2 UJ	7.6 UJ	7.0 U	8.2 U	9.7 U	6.3 U	36 U	11 U	7.3 U	6.2 U	2,800 U	890 U	6.7 U	7.9 U	6.9 U	7.8 U	8.1 U	6.8 U
Iodomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isobutyl alcohol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-8
SEDIMENT ANALYTICAL DATA
ORGANIC COMPOUNDS SEDIMENT ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

	SD-1			SD-2			SD-3				SD-4		SD-5			SD-6		
	(0 - 1.5') 6/15/95	(1.5 - 3') 6/15/95	(3 - 4.5') 6/15/95	(0 - 1.7') 6/15/95	(1.7 - 3.4') 6/15/95	(3.4 - 5') 6/15/95	(0 - 1.3') 6/15/95		(1.3 - 2.6') 6/15/95	(2.6 - 3.9') 6/15/95	(0 - 1.5') 6/19/95	(1.5 - 3') 6/19/95	(0 - 1.8') 6/21/95	(1.8 - 3.6') 6/21/95	(3.6 - 5.4') 6/21/95	(0 - 1.6') 6/21/95	(1.6 - 3.2') 6/21/95	(3.2 - 4.8') 6/21/95
Constituents (ug/kg)	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**DUP**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**
VOCs (Cont'd.)																		
Methyl methacrylate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	240 UJ	180 UJ	9.9 U	140 U	70 U	21 U	**1,200**	280 U	29 UJ	16 U	**100,000**	**4,000**	130 U	30 U	20 U	72 U	23 U	38 U
Propionitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyridine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	8.2 UJ	7.6 UJ	7.0 U	8.2 U	9.7 U	6.3 U	36 U	11 U	7.3 U	6.2 U	2,800 U	890 U	6.7 U	7.9 U	6.9 U	7.8 U	8.1 U	6.8 U
Tetrachloroethene	8.2 UJ	7.6 UJ	7.0 U	8.2 U	9.7 U	6.3 U	36 U	11 U	7.3 U	6.2 U	2,800 U	890 U	6.7 U	7.9 U	6.9 U	7.8 U	8.1 U	6.8 U
Toluene	8.2 UJ	7.6 UJ	7.0 U	8.2 U	9.7 U	6.3 U	36 U	11 U	7.3 U	6.2 U	2,800 U	890 U	6.7 U	7.9 U	**9.0**	7.8 U	8.1 U	**6.6 J**
trans-1,2-Dichloroethene	8.2 UJ	7.6 UJ	7.0 U	8.2 U	9.7 U	6.3 U	36 U	11 U	7.3 U	6.2 U	2,800 U	890 U	6.7 U	7.9 U	6.9 U	7.8 U	8.1 U	6.8 U
trans-1,3-Dichloropropene	8.2 UJ	7.6 UJ	7.0 U	8.2 U	9.7 U	6.3 U	36 U	11 U	7.3 U	6.2 U	2,800 U	890 U	6.7 U	7.9 U	6.9 U	7.8 U	8.1 U	6.8 U
trans-1,4-Dichloro-2-butene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	8.2 UJ	7.6 UJ	7.0 U	8.2 U	9.7 U	6.3 U	36 U	11 U	7.3 U	6.2 U	2,800 U	890 U	6.7 U	7.9 U	6.9 U	7.8 U	8.1 U	6.8 U
Trichlorofluoromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	8.2 UJ	7.6 UJ	7.0 U	8.2 U	9.7 U	6.3 U	36 U	11 U	7.3 U	6.2 U	2,800 U	890 U	6.7 U	7.9 U	6.9 U	7.8 U	8.1 U	6.8 U
Xylenes, Total	8.2 UJ	7.6 UJ	7.0 U	8.2 U	9.7 U	6.3 U	36 U	11 U	7.3 U	6.2 U	**1,600 J**	890 U	6.7 U	7.9 U	6.9 U	7.8 U	8.1 U	6.8 U
SVOCs																		
1,2,4,5-Tetrachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	1,100 U	1,300 U	230 U	2,700 U	640 U	420 U	7,200 U	7,000 U	240 U	410 U	2,200 U	230 U	220 U	520 U	230 U	260 U	670 U	220 U
1,2-Dichlorobenzene	8.2 UJ	7.6 UJ	7.0 U	8.2 U	9.7 U	6.3 U	36 U	11 U	7.3 U	6.2 U	2,800 U	890 U	6.7 U	7.9 U	6.9 U	7.8 U	8.1 U	6.8 U
1,3,5-Trinitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	8.2 UJ	7.6 UJ	7.0 U	8.2 U	9.7 U	6.3 U	36 U	11 U	7.3 U	6.2 U	2,800 U	890 U	6.7 U	7.9 U	6.9 U	7.8 U	8.1 U	6.8 U
1,3-Dinitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	8.2 UJ	7.6 UJ	7.0 U	8.2 U	9.7 U	6.3 U	36 U	11 U	7.3 U	6.2 U	2,800 U	890 U	6.7 U	7.9 U	6.9 U	7.8 U	8.1 U	6.8 U
1,4-Naphthoquinone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(dichloropropane)	1,100 U	1,300 U	230 U	2,700 U	640 U	420 U	7,200 U	7,000 U	240 U	410 U	2,200 UJ	230 UJ	220 U	520 U	230 U	260 U	670 U	220 U
2,3,4,6-Tetrachlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	1,100 U	1,300 U	230 U	2,700 U	640 U	420 U	7,200 U	7,000 U	240 U	410 U	2,200 U	230 U	220 U	520 U	230 U	260 U	670 U	220 U
2,4,6-Trichlorophenol	1,100 U	1,300 U	230 U	2,700 U	640 U	420 U	7,200 U	7,000 U	240 U	410 U	2,200 U	230 U	220 U	520 U	230 U	260 U	670 U	220 U
2,4-Dichlorophenol	1,100 U	1,300 U	230 U	2,700 U	640 U	420 U	7,200 U	7,000 U	240 U	410 U	2,200 U	230 U	220 U	520 U	230 U	260 U	670 U	220 U
2,4-Dimethylphenol	**360 J**	**220 J**	230 U	2,700 U	**630 J**	**130 J**	7,200 U	7,000 U	**410**	**280 J**	2,200 U	230 U	**130 J**	**550**	230 U	**350**	**400 J**	220 U
2,4-Dinitrophenol	5,300 U	6,100 U	1,100 U	13,000 U	3,100 U	2,000 U	35,000 U	34,000 U	1,200 U	2,000 U	11,000 UJ	1,100 U	1,100 U	2,500 U	1,100 U	1,200 U	3,200 U	1,100 U
2,4-Dinitrotoluene	1,100 U	1,300 U	230 U	2,700 U	640 U	420 U	7,200 U	7,000 U	240 U	410 U	2,200 U	230 U	220 U	520 U	230 U	260 U	670 U	220 U
2,6-Dichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	1,100 U	1,300 U	230 U	2,700 U	640 U	420 U	7,200 U	7,000 U	240 U	410 U	2,200 U	230 U	220 U	520 U	230 U	260 U	670 U	220 U
2-Acetylaminofluorene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	1,100 U	1,300 U	230 U	2,700 U	640 U	420 U	7,200 U	7,000 U	240 U	410 U	2,200 U	230 U	220 U	520 U	230 U	260 U	670 U	220 U
2-Chlorophenol	1,100 U	1,300 U	230 U	2,700 U	640 U	420 U	7,200 U	7,000 U	240 U	410 U	2,200 U	230 U	220 U	520 U	230 U	260 U	670 U	220 U
2-Methylnaphthalene	**1,800**	**860 J**	**59 J**	**1,900 J**	**3,000**	**750**	**4,900 J**	**5,200 J**	**2,100**	**1,500**	**550 J**	230 U	**530**	**650**	230 U	**1,100**	**1,000**	**34 J**
2-Methylphenol	**230 J**	1,300 U	230 U	2,700 U	**360 J**	**70 J**	7,200 U	7,000 U	**310**	**150 J**	2,200 U	230 U	**70 J**	520 U	230 U	**220 J**	**120 J**	220 U
2-Methylphenol	**230 J**	1,300 U	230 U	2,700 U	**360 J**	**70 J**	7,200 U	7,000 U	**310**	**150 J**	2,200 U	230 U	**70 J**	520 U	230 U	**220 J**	**120 J**	220 U
2-Naphthylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	5,300 U	6,100 U	1,100 U	13,000 U	3,100 U	2,000 U	35,000 U	34,000 U	1,200 U	2,000 U	11,000 U	1,100 U	1,100 U	2,500 U	1,100 U	1,200 U	3,200 U	1,100 U
2-Nitrophenol	1,100 U	1,300 U	230 U	2,700 U	640 U	420 U	7,200 U	7,000 U	240 U	410 U	2,200 U	230 U	220 U	520 U	230 U	260 U	670 U	220 U

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TABLE A-8
SEDIMENT ANALYTICAL DATA
ORGANIC COMPOUNDS SEDIMENT ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

	SD-1			SD-2			SD-3				SD-4		SD-5			SD-6		
	(0 - 1.5') 6/15/95	(1.5 - 3') 6/15/95	(3 - 4.5') 6/15/95	(0 - 1.7') 6/15/95	(1.7 - 3.4') 6/15/95	(3.4 - 5') 6/15/95	(0 - 1.3') 6/15/95		(1.3 - 2.6') 6/15/95	(2.6 - 3.9') 6/15/95	(0 - 1.5') 6/19/95	(1.5 - 3') 6/19/95	(0 - 1.8') 6/21/95	(1.8 - 3.6') 6/21/95	(3.6 - 5.4') 6/21/95	(0 - 1.6') 6/21/95	(1.6 - 3.2') 6/21/95	(3.2 - 4.8') 6/21/95
Constituents (ug/kg)	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**DUP**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**
SVOCs (Cont'd.)																		
2-Picoline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	2,200 U	2,500 U	460 U	5,400 U	1,300 U	830 U	14,000 U	14,000 U	480 U	810 U	4,400 U	470 U	440 U	1,000 U	450 U	510 U	1,300 U	450 U
3,3'-Dimethylbenzidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	5,300 U	6,100 U	1,100 U	13,000 U	3,100 U	2,000 U	35,000 U	34,000 U	1,200 U	2,000 U	11,000 U	1,100 U	1,100 U	2,500 U	1,100 U	1,200 U	3,200 U	1,100 U
4,6-Dinitro-2-methylphenol	5,300 U	6,100 U	1,100 U	13,000 U	3,100 U	2,000 U	35,000 U	34,000 U	1,200 U	2,000 U	11,000 U	1,100 U	1,100 U	2,500 U	1,100 U	1,200 U	3,200 U	1,100 U
4-Aminobiphenyl	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	1,100 U	1,300 U	230 U	2,700 U	640 U	420 U	7,200 U	7,000 U	240 U	410 U	2,200 U	230 U	220 U	520 U	230 U	260 U	670 U	220 U
4-Chloro-3-methylphenol	1,100 U	1,300 U	230 U	2,700 U	640 U	420 U	7,200 U	7,000 U	240 U	410 U	2,200 U	230 U	220 U	520 U	230 U	260 U	670 U	220 U
4-Chloroaniline	1,100 U	1,300 U	230 U	2,700 U	640 U	420 U	7,200 U	7,000 U	240 U	410 U	2,200 U	230 U	220 U	520 U	230 U	260 U	670 U	220 U
4-Chlorophenyl phenyl ether	1,100 U	1,300 U	230 U	2,700 U	640 U	420 U	7,200 U	7,000 U	240 U	410 U	2,200 U	230 U	220 U	520 U	230 U	260 U	670 U	220 U
4-Methylphenol	**280 J**	1,300 U	230 U	2,700 U	**420 J**	**93 J**	7,200 U	7,000 U	**390**	**160 J**	2,200 U	230 U	**77 J**	520 U	230 U	**200 J**	**220 J**	220 U
4-Nitroaniline	5,300 U	6,100 U	1,100 U	13,000 U	3,100 U	2,000 U	35,000 U	34,000 U	1,200 U	2,000 U	11,000 UJ	1,100 U	1,100 U	2,500 U	1,100 UJ	1,200 U	3,200 U	1,100 U
4-Nitrophenol	5,300 U	6,100 U	1,100 U	13,000 U	3,100 U	2,000 U	35,000 U	34,000 U	1,200 UJ	2,000 U	11,000 UJ	1,100 U	1,100 U	2,500 U	1,100 U	1,200 U	3,200 U	1,100 U
4-Nitroquinoline1-oxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	1,100 U	1,300 U	230 U	2,700 U	**200 J**	**50 J**	7,200 U	7,000 U	**150 J**	**92 J**	2,200 U	230 U	**24 J**	520 U	230 U	260 U	670 U	220 U
Acenaphthylene	1,100 U	1,300 U	230 U	2,700 U	640 U	420 U	7,200 U	7,000 U	240 U	410 U	2,200 U	230 U	220 U	520 U	230 U	260 U	670 U	220 U
Acetophenone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha,alpha-Dimethyl phenethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	**170 J**	**140 J**	230 U	2,700 U	**230 J**	**70 J**	7,200 U	7,000 U	**180 J**	**110 J**	2,200 U	230 U	**53 J**	520 U	230 U	**100 J**	**110 J**	220 U
Benzo(a)anthracene	1,100 U	1,300 U	230 U	2,700 U	**200 J**	**75 J**	7,200 U	7,000 U	**160 J**	**99 J**	2,200 U	230 U	**44 J**	520 U	230 U	**77 J**	**85 J**	220 U
Benzo(a)pyrene	**130 J**	1,300 U	230 U	2,700 U	**220 J**	420 U	7,200 U	7,000 U	**100 J**	**78 J**	2,200 U	230 U	**28 J**	520 U	230 U	260 U	670 U	220 U
Benzo(b)fluoranthene	**150 J**	1,300 U	230 U	2,700 U	**280 J**	**95 J**	7,200 U	7,000 U	**130 J**	**120 J**	2,200 U	230 U	**40 J**	520 U	230 U	**120 J**	670 U	220 U
Benzo(g,h,i)perylene	1,100 U	1,300 U	230 U	2,700 U	**150 J**	**45 J**	7,200 U	7,000 U	**82 J**	**83 J**	2,200 U	230 U	220 U	520 U	230 U	260 U	670 U	220 U
Benzo(k)fluoranthene	1,100 U	1,300 U	230 U	2,700 U	640 U	420 U	7,200 U	7,000 U	240 U	410 U	2,200 U	230 U	220 U	520 U	230 U	260 U	670 U	220 U
Benzyl alcohol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	1,100 U	1,300 U	230 U	2,700 U	640 U	420 U	7,200 U	7,000 U	240 U	410 U	2,200 U	230 U	220 U	520 U	230 U	260 U	670 U	220 U
bis(2-Chloroethyl)ether	1,100 U	1,300 U	230 U	2,700 U	640 U	420 U	7,200 U	7,000 U	240 U	410 U	2,200 U	230 U	220 U	520 U	230 U	260 U	670 U	220 U
bis(2-Ethylhexyl)phthalate	1,100 U	1,300 U	230 U	2,700 U	640 U	420 U	7,200 U	7,000 U	**830**	410 U	2,200 UJ	230 U	220 U	**270 J**	230 U	**110 J**	**820**	**160 J**
Butyl benzyl phthalate	1,100 U	**410 J**	**75 J**	2,700 U	640 U	420 U	7,200 U	7,000 U	240 U	410 U	2,200 UJ	230 U	220 U	520 U	230 U	260 U	670 U	220 U
Carbazole	1,100 U	1,300 U	230 U	2,700 U	**70 J**	420 U	7,200 U	7,000 U	240 U	410 U	2,200 U	230 U	220 U	520 U	230 U	260 U	670 U	220 U
Chrysene	1,100 U	**260 J**	230 U	2,700 U	**270 J**	**100 J**	7,200 U	7,000 U	**210 J**	**130 J**	2,200 U	230 U	**65 J**	520 U	230 U	**120 J**	**150 J**	220 U
Di-n-butyl phthalate	1,100 U	1,300 U	**2,100**	2,700 U	**210 J**	**86 J**	7,200 U	7,000 U	**920**	**100 J**	2,200 U	230 U	220 U	520 U	**44 J**	**65 J**	670 U	**32 J**
Di-n-octyl phthalate	**2,200**	**1,300**	230 U	2,700 U	**840 J**	**250 J**	7,200 U	7,000 U	**1,300 J**	**350 J**	2,200 U	230 U	220 U	**770**	230 U	**130 J**	**2,400**	**410**
Diallate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	1,100 U	1,300 U	230 U	2,700 U	640 U	420 U	7,200 U	7,000 U	240 U	410 U	2,200 U	230 U	220 U	520 U	230 U	260 U	670 U	220 U
Dibenzofuran	**320 J**	**170 J**	230 U	2,700 U	**560 J**	**150 J**	7,200 U	7,000 U	**450**	**250 J**	2,200 U	230 U	**120 J**	**140 J**	230 U	**280**	**250 J**	220 U
Diethyl phthalate	1,100 U	1,300 U	230 U	2,700 U	640 U	420 U	7,200 U	7,000 U	240 U	410 U	2,200 U	230 U	220 U	520 U	230 U	260 U	670 U	220 U
Dimethyl phthalate	1,100 U	1,300 U	230 U	2,700 U	640 U	420 U	7,200 U	7,000 U	240 U	410 U	2,200 U	230 U	220 U	520 U	230 U	260 U	670 U	220 U

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ORGANIC COMPOUNDS SEDIMENT ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

	SD-1			SD-2			SD-3				SD-4		SD-5			SD-6		
	(0 - 1.5') 6/15/95	(1.5 - 3') 6/15/95	(3 - 4.5') 6/15/95	(0 - 1.7') 6/15/95	(1.7 - 3.4') 6/15/95	(3.4 - 5') 6/15/95	(0 - 1.3') 6/15/95		(1.3 - 2.6') 6/15/95	(2.6 - 3.9') 6/15/95	(0 - 1.5') 6/19/95	(1.5 - 3') 6/19/95	(0 - 1.8') 6/21/95	(1.8 - 3.6') 6/21/95	(3.6 - 5.4') 6/21/95	(0 - 1.6') 6/21/95	(1.6 - 3.2') 6/21/95	(3.2 - 4.8') 6/21/95
Constituents (ug/kg)	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**DUP**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**
SVOCs (Cont'd.)																		
Diphenylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl methacrylate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl methanesulfonate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	**390 J**	**420 J**	**75 J**	**770 J**	**710**	**180 J**	**1,000 J**	**1,100 J**	**520**	**290 J**	2,200 U	230 U	**110 J**	**150 J**	230 U	**220 J**	**250 J**	220 U
Fluorene	**300 J**	1,300 U	230 U	2,700 U	**520 J**	**130 J**	7,200 U	7,000 U	**400**	**230 J**	2,200 U	230 U	**100 J**	520 U	230 U	**180 J**	670 U	220 U
Hexachlorobenzene	1,100 U	1,300 U	230 U	2,700 U	640 U	420 U	7,200 U	7,000 U	240 U	410 U	2,200 U	230 U	220 U	520 U	230 U	260 U	670 U	220 U
Hexachlorobutadiene	1,100 U	1,300 U	230 U	2,700 U	640 U	420 U	7,200 U	7,000 U	240 U	410 U	2,200 U	230 U	220 U	520 U	230 U	260 U	670 U	220 U
Hexachlorocyclopentadiene	1,100 U	1,300 U	230 U	2,700 U	640 U	420 U	7,200 U	7,000 U	240 U	410 U	2,200 U	230 U	220 U	520 U	230 U	260 U	670 U	220 U
Hexachloroethane	1,100 U	1,300 U	230 U	2,700 U	640 U	420 U	7,200 U	7,000 U	240 U	410 U	2,200 U	230 U	220 U	520 U	230 U	260 U	670 U	220 U
Hexachloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	1,100 U	1,300 U	230 U	2,700 U	**70 J**	420 U	7,200 U	7,000 U	**35 J**	410 U	2,200 U	230 U	220 U	520 U	230 U	260 U	670 U	220 U
Isophorone	1,100 U	1,300 U	230 U	2,700 U	**860**	**180 J**	7,200 U	7,000 U	**290**	**350 J**	2,200 U	230 U	**180 J**	**200 J**	230 U	**390**	**500 J**	220 U
Isosafrole, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl methanesulfonate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	1,100 U	1,300 U	230 U	2,700 U	640 U	420 U	7,200 U	7,000 U	240 UJ	410 U	2,200 U	230 U	220 U	520 U	230 U	260 U	670 U	220 U
N-Nitrosodi-n-butylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	1,100 U	1,300 U	230 U	2,700 U	640 U	420 U	7,200 U	7,000 U	240 U	410 U	2,200 U	230 U	220 U	520 U	230 U	260 U	670 U	220 U
N-Nitrosomethylethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	**1,500**	**700 J**	**48 J**	**1,900 J**	**2,800**	**630**	**3,800 J**	**4,400 J**	**1,700**	**1,200**	**610 J**	230 U	**510**	**610**	230 U	**1,000**	**1,100**	**38 J**
Nitrobenzene	1,100 U	1,300 U	230 U	2,700 U	640 U	420 U	7,200 U	7,000 U	240 U	410 U	2,200 U	230 U	220 U	520 U	230 U	260 U	670 U	220 U
o-Toluidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Chlorobenzilate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Phenylene diamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	5,300 U	6,100 U	1,100 U	13,000 U	3,100 UJ	2,000 U	35,000 U	34,000 U	1,200 U	2,000 UJ	11,000 U	1,100 U	1,100 U	2,500 U	1,100 U	1,200 U	3,200 U	1,100 U
Phenacetin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	**1,100**	**640 J**	**70 J**	2,700 U	**1,800**	**540**	**2,200 J**	**2,300 J**	**1,200**	**840**	2,200 U	230 U	**380**	**430 J**	230 U	**750**	**690**	**34 J**
Phenol	**340 J**	1,300 U	230 U	2,700 U	**390 J**	**73 J**	7,200 U	7,000 U	**310**	**140 J**	2,200 U	230 U	**39 J**	520 U	230 U	260 U	670 U	220 U
Pronamide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	**300 J**	**250 J**	**59 J**	2,700 U	**320 J**	**130 J**	**850 J**	7,000 U	**200 J**	**140 J**	2,200 U	230 U	**62 J**	**99 J**	230 U	**130 J**	**200 J**	220 U
Safrole, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetraethyl Dithiopyrophosphate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-8
SEDIMENT ANALYTICAL DATA
ORGANIC COMPOUNDS SEDIMENT ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

	SD-1			SD-2			SD-3				SD-4		SD-5			SD-6		
	(0 - 1.5') 6/15/95	(1.5 - 3') 6/15/95	(3 - 4.5') 6/15/95	(0 - 1.7') 6/15/95	(1.7 - 3.4') 6/15/95	(3.4 - 5') 6/15/95	(0 - 1.3') 6/15/95		(1.3 - 2.6') 6/15/95	(2.6 - 3.9') 6/15/95	(0 - 1.5') 6/19/95	(1.5 - 3') 6/19/95	(0 - 1.8') 6/21/95	(1.8 - 3.6') 6/21/95	(3.6 - 5.4') 6/21/95	(0 - 1.6') 6/21/95	(1.6 - 3.2') 6/21/95	(3.2 - 4.8') 6/21/95
Constituents (ug/kg)	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**DUP**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**
PCBs																		
Aroclor-1016	270 U	250 U	470 U	270 U	320 U	210 U	360 U	350 U	240 U	200 U	220 U	230 U	220 U	260 U	230 U	260 U	270 U	220 U
Aroclor-1221	270 U	250 U	470 U	270 U	320 U	210 U	360 U	350 U	240 U	200 U	220 U	230 U	220 U	260 U	230 U	260 U	270 U	220 U
Aroclor-1232	270 U	250 U	470 U	270 U	320 U	210 U	360 U	350 U	240 U	200 U	220 U	230 U	220 U	260 U	230 U	260 U	270 U	220 U
Aroclor-1242	**240 J**	**360**	470 U	270 U	**160 J**	210 U	360 U	350 U	240 U	200 U	220 U	230 U	220 U	260 U	230 U	260 U	270 U	220 U
Aroclor-1248	270 U	250 U	470 U	270 U	320 U	210 U	360 U	350 U	240 U	200 U	220 U	230 U	220 U	260 U	230 U	260 U	270 U	220 U
Aroclor-1254	**320**	**420**	470 U	**200 J**	320 U	210 U	**360 J**	350 U	**99 J**	200 U	220 U	230 U	220 U	260 U	230 U	260 U	270 U	220 U
Aroclor-1260	270 U	250 U	470 U	270 U	**350**	210 U	**470**	**380**	240 U	**140 J**	**99 J**	230 U	220 U	260 U	230 U	260 U	270 U	220 U
Total Aroclors	**560**	**780**	ND	**200**	**510**	ND	**830**	**380**	**99**	**140**	**99**	ND	ND	ND	ND	ND	ND	ND
Pesticide/Herbicide																		
2,4,5-T	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	34 U	39 U	34 U	39 U	40 U	34 U
2,4,5-TP(Silvex)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	34 U	39 U	34 U	39 U	40 U	34 U
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	130 U	160 U	140 U	160 U	160 U	140 U
4,4'-DDD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.5 U*	5.2 U	2.3 U	5.2 U*	5.4 U*	4.5 U*
4,4'-DDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.5 U*	5.2 U	2.3 U	5.2 U*	5.4 U*	4.5 U*
4,4'-DDT	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.5 U*	5.2 U	2.3 U	5.2 U*	5.4 U*	4.5 U*
Aldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.2 U*	2.6 U	1.2 U	2.6 U*	2.7 U*	2.3 U*
alpha-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.2 U*	2.6 U	1.2 U	2.6 U*	2.7 U*	2.3 U*
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.2 U*	2.6 U	2.3 U	2.6 U*	2.7 U*	2.3 U*
beta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.2 U*	2.6 U	1.2 U	2.6 U*	2.7 U*	2.3 U*
delta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.2 U*	2.6 U	1.2 U	2.6 U*	2.7 U*	2.3 U*
Dieldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.5 U*	5.2 U	2.3 U	5.2 U*	5.4 U*	4.5 U*
Dinoseb	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	13 UJ	16 UJ	14 UJ	16 UJ	16 UJ	14 UJ
Endosulfan I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.2 U*	2.6 U	2.3 U	2.6 U*	2.7 U*	2.3 U*
Endosulfan II	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.5 U*	5.2 U	2.3 U	5.2 U*	5.4 U*	4.5 U*
Endosulfan sulfate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.5 U*	**5.2 ***	2.3 U	5.2 U*	5.4 U*	4.5 U*
Endrin aldehyde	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.5 U*	5.2 U	2.3 U	5.2 U*	5.4 U*	4.5 U*
Endrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.5 U*	5.2 U	2.3 U	5.2 U*	5.4 U*	4.5 U*
gamma-BHC (Lindane)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.2 U*	2.6 U	1.2 U	2.6 U*	2.7 U*	2.3 U*
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.2 U*	2.6 U	2.3 U	2.6 U*	2.7 U*	2.3 U*
Heptachlor epoxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.2 U*	2.6 U	1.2 U	2.6 U*	2.7 U*	2.3 U*
Heptachlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.2 U*	2.6 U	1.2 U	2.6 U*	2.7 U*	2.3 U*
Isodrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	11 U	13 U	11 U	12 U	13 U	11 U
Kepone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	110 U	130 U	110 U	120 U	130 U	110 U
Methoxychlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	34 UJ	39 UJ	34 UJ	39 UJ	40 U	34 U
Toxaphene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	110 U	130 U	120 U	130 U	140 U	120 U
Dioxin/Furan																		
2,3,7,8-TCDD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.0058 J**	**0.0087**	0.0013 U	**0.0040 J**	**0.008**	0.0014 U
HxCDDs, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.14**	**0.24**	**0.013**	**0.052**	**0.14**	**0.016**
HxCDFs, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.13**	**0.13**	0.0030 U	**0.063**	**0.20 J**	**0.019**
PeCDDs, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.0099**	**0.032**	0.0024 U	0.0067 U	**0.020 J**	0.0028 U
PeCDFs, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.094**	**0.21**	0.0066 U	**0.29**	**0.57**	**0.056**
TCDDs, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U
TCDFs, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.26**	**0.47**	**0.04**	**0.62**	**1.2**	**0.2**
2,3,7,8-TCDD TEQ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.027**	**0.058**	**0.0014**	**0.052**	**0.12**	**0.016**

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TABLE A-8
SEDIMENT ANALYTICAL DATA
ORGANIC COMPOUNDS SEDIMENT ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

	SD-7			SD-8			SD-9			SD-10			SD-11		
	(0 - 1.3') 6/21/95	(1.3 - 2.6') 6/21/95	(2.6 - 3.9') 6/21/95	(0 - 1.5') 6/21/95	(1.5 - 3') 6/21/95	(3 - 4.5') 6/21/95	(0 - 1.5') 6/21/95		(1.5 - 3') 6/21/95	(0 - 0.5') 6/20/95	(0.75 - 1.25') 6/20/95	(1.5 - 2') 6/20/95	(0 - 0.5') 6/20/95	(0.9 - 1.4') 6/20/95	(1.8 - 2.3') 6/20/95
Constituents (ug/kg)	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**DUP**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**
VOCs															
1,1,1,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	6.1 U	7.5 U	7.5 U	8.5 UJ	8.4 UJ	6.7 U	6.0 U	6.3 U	7.1 U	9.8 U	10 UJ	6.8 U	R	10 U	11 U
1,1,2,2-Tetrachloroethane	6.1 U	7.5 UJ	7.5 U	8.5 UJ	8.4 UJ	6.7 U	6.0 U	6.3 U	7.1 U	9.8 UJ	R	6.8 U	R	10 U	11 U
1,1,2-Trichloroethane	6.1 U	7.5 U	7.5 U	8.5 UJ	8.4 UJ	6.7 U	6.0 U	6.3 U	7.1 U	9.8 U	10 UJ	6.8 U	R	10 U	11 U
1,1-Dichloroethane	6.1 U	7.5 U	7.5 U	8.5 UJ	**8.4 J**	6.7 U	6.0 U	6.3 U	7.1 U	9.8 U	10 UJ	6.8 U	R	10 U	11 U
1,1-Dichloroethene	6.1 U	7.5 U	7.5 U	8.5 UJ	8.4 UJ	6.7 U	6.0 U	6.3 U	7.1 U	9.8 U	10 UJ	6.8 U	R	10 U	11 U
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	6.1 U	7.5 UJ	7.5 U	8.5 UJ	8.4 UJ	6.7 U	6.0 U	6.3 U	7.1 U	9.8 U	R	6.8 U	8.9 U	10 U	11 U
1,2-Dichloroethane	6.1 U	7.5 U	7.5 U	8.5 UJ	8.4 UJ	6.7 U	6.0 U	6.3 U	7.1 U	9.8 U	10 UJ	6.8 U	R	10 U	11 U
1,2-Dichloroethene, Total	6.1 U	7.5 U	7.5 U	8.5 UJ	8.4 UJ	6.7 U	6.0 U	6.3 U	7.1 U	9.8 U	10 UJ	6.8 U	R	10 U	11 U
1,2-Dichloropropane	6.1 U	7.5 U	7.5 U	8.5 UJ	8.4 UJ	6.7 U	6.0 U	6.3 U	7.1 U	9.8 U	10 UJ	6.8 U	R	10 U	11 U
1,3-Dichlorobenzene	6.1 U	7.5 UJ	7.5 U	8.5 UJ	8.4 UJ	6.7 U	6.0 U	6.3 U	7.1 U	9.8 U	R	6.8 U	8.9 U	10 U	11 U
1,4-Dichlorobenzene	6.1 U	7.5 UJ	7.5 U	8.5 UJ	8.4 UJ	6.7 U	6.0 U	6.3 U	7.1 U	9.8 U	R	6.8 U	8.9 U	10 U	11 U
1,4-Dioxane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	**5.4 J**	75 U	**4.8 J**	**7.5 J**	**25 J**	**4.2 J**	60 U	63 U	**11 J**	**18 J**	**14 J**	**3.7 J**	**13 J**	**5.1 J**	**21 J**
2-Chloro-1,3-butadiene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	61 U	75 UJ	75 U	85 UJ	84 UJ	67 U	60 U	63 U	71 U	98 UJ	R	68 U	R	100 U	110 U
3-Chloro-1-propene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	61 U	75 UJ	75 U	85 UJ	84 UJ	67 U	60 U	63 U	71 U	98 UJ	R	68 U	R	100 U	110 U
Acetone	61 U	75 U	**22 J**	**43 J**	**140 J**	**17 J**	**12 J**	63 UJ	**48 J**	**61 J**	**63 J**	**14 J**	**58 J**	**22 J**	**90 J**
Acetonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	6.1 U	**7.0 J**	7.5 U	8.5 UJ	8.4 UJ	6.7 U	6.0 U	6.3 U	7.1 U	9.8 U	**82 J**	6.8 U	**26 J**	10 U	11 U
Bromodichloromethane	6.1 U	7.5 U	7.5 U	8.5 UJ	8.4 UJ	6.7 U	6.0 U	6.3 U	7.1 U	9.8 U	10 UJ	6.8 U	R	10 U	11 U
Bromoform	6.1 U	7.5 U	7.5 U	8.5 UJ	8.4 UJ	6.7 U	6.0 U	6.3 U	7.1 U	9.8 U	10 UJ	6.8 U	R	10 U	11 U
Bromomethane	6.1 U	7.5 U	7.5 U	8.5 UJ	8.4 UJ	6.7 U	6.0 U	6.3 U	7.1 U	9.8 U	10 UJ	6.8 U	R	10 U	11 U
Carbon disulfide	6.1 U	7.5 U	7.5 U	8.5 UJ	**12**	**3.5 J**	6.0 U	6.3 U	7.1 U	9.8 U	**4.9 J**	6.8 U	R	**7.9 J**	11 U
Carbon tetrachloride	6.1 U	7.5 U	7.5 U	8.5 UJ	8.4 UJ	6.7 U	6.0 U	6.3 U	7.1 U	9.8 U	10 UJ	6.8 U	R	10 U	11 U
Chlorobenzene	6.1 U	7.5 UJ	7.5 U	8.5 UJ	8.4 UJ	6.7 U	6.0 U	6.3 U	7.1 U	9.8 UJ	R	6.8 U	R	10 U	11 U
Chlorodibromomethane	6.1 U	7.5 U	7.5 U	8.5 UJ	8.4 UJ	6.7 U	6.0 U	6.3 U	7.1 U	9.8 U	10 UJ	6.8 U	R	10 U	11 U
Chloroethane	6.1 U	7.5 U	7.5 U	8.5 UJ	8.4 UJ	6.7 U	6.0 U	6.3 U	7.1 U	9.8 U	10 UJ	6.8 U	R	10 U	11 U
Chloroform	6.1 U	7.5 U	7.5 U	8.5 UJ	8.4 UJ	6.7 U	6.0 U	6.3 U	7.1 U	9.8 U	10 UJ	6.8 U	R	10 U	11 U
Chloromethane	6.1 U	7.5 U	7.5 U	8.5 UJ	8.4 UJ	6.7 U	6.0 U	6.3 UJ	7.1 U	9.8 U	10 UJ	6.8 U	R	10 U	11 U
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	6.1 U	7.5 U	7.5 U	8.5 UJ	8.4 UJ	6.7 U	6.0 U	6.3 U	7.1 U	9.8 U	10 UJ	6.8 U	R	10 U	11 U
Dibromomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	6.1 U	7.5 UJ	7.5 U	8.5 UJ	8.4 UJ	6.7 U	6.0 U	6.3 U	7.1 U	9.8 UJ	**6.9 J**	6.8 U	R	10 U	11 U
Iodomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isobutyl alcohol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-8
SEDIMENT ANALYTICAL DATA
ORGANIC COMPOUNDS SEDIMENT ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

	SD-7			SD-8			SD-9			SD-10			SD-11		
	(0 - 1.3') 6/21/95	(1.3 - 2.6') 6/21/95	(2.6 - 3.9') 6/21/95	(0 - 1.5') 6/21/95	(1.5 - 3') 6/21/95	(3 - 4.5') 6/21/95	(0 - 1.5') 6/21/95		(1.5 - 3') 6/21/95	(0 - 0.5') 6/20/95	(0.75 - 1.25') 6/20/95	(1.5 - 2') 6/20/95	(0 - 0.5') 6/20/95	(0.9 - 1.4') 6/20/95	(1.8 - 2.3') 6/20/95
Constituents (ug/kg)	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**DUP**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**
VOCs (Cont'd.)															
Methyl methacrylate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	20 U	29 U	36 U	54 UJ	73 UJ	16 U	6.9 U	6.0 U	7.0 U	29 U	**24**	26 U	R	11 U	36 U
Propionitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyridine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	6.1 U	7.5 UJ	7.5 U	8.5 UJ	8.4 UJ	6.7 U	6.0 U	6.3 U	7.1 U	9.8 UJ	R	6.8 U	R	10 U	11 U
Tetrachloroethene	6.1 U	7.5 UJ	7.5 U	8.5 UJ	8.4 UJ	6.7 U	6.0 U	6.3 U	7.1 U	9.8 UJ	R	6.8 U	R	10 U	11 U
Toluene	**2.5 J**	**3.5 J**	**4.0 J**	8.5 UJ	8.4 UJ	6.7 U	6.0 U	6.3 U	**10**	9.8 UJ	**41 J**	6.8 U	**8.4 J**	10 U	11 U
trans-1,2-Dichloroethene	6.1 U	7.5 U	7.5 U	8.5 UJ	8.4 UJ	6.7 U	6.0 U	6.3 U	7.1 U	9.8 U	10 UJ	6.8 U	R	10 U	11 U
trans-1,3-Dichloropropene	6.1 U	7.5 U	7.5 U	8.5 UJ	8.4 UJ	6.7 U	6.0 U	6.3 U	7.1 U	9.8 U	10 UJ	6.8 U	R	10 U	11 U
trans-1,4-Dichloro-2-butene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	6.1 U	7.5 U	7.5 U	8.5 UJ	8.4 UJ	6.7 U	6.0 U	6.3 U	7.1 U	9.8 U	10 UJ	6.8 U	R	10 U	11 U
Trichlorofluoromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	6.1 U	7.5 U	7.5 U	8.5 UJ	8.4 UJ	6.7 U	6.0 U	6.3 U	7.1 U	9.8 U	10 UJ	6.8 U	R	10 U	11 U
Xylenes, Total	6.1 U	7.5 UJ	7.5 U	8.5 UJ	8.4 UJ	6.7 U	6.0 U	6.3 U	7.1 U	9.8 UJ	**36 J**	6.8 U	**6.6 J**	10 U	11 U
SVOCs															
1,2,4,5-Tetrachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	1,000 U	620 U	500 U	280 U	1,400 U	220 U	800 U	830 U	230 U	6,400 U	6,800 U	1,100 U	290 U	6,600 U	1,400 U
1,2-Dichlorobenzene	6.1 U	7.5 UJ	7.5 U	8.5 UJ	8.4 UJ	6.7 U	6.0 U	6.3 U	7.1 U	9.8 U	R	6.8 U	8.9 U	10 U	11 U
1,3,5-Trinitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	6.1 U	7.5 UJ	7.5 U	8.5 UJ	8.4 UJ	6.7 U	6.0 U	6.3 U	7.1 U	9.8 U	R	6.8 U	8.9 U	10 U	11 U
1,3-Dinitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	6.1 U	7.5 UJ	7.5 U	8.5 UJ	8.4 UJ	6.7 U	6.0 U	6.3 U	7.1 U	9.8 U	R	6.8 U	8.9 U	10 U	11 U
1,4-Naphthoquinone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(dichloropropane)	1,000 U	620 U	500 U	280 U	1,400 U	220 U	800 U	830 U	230 U	6,400 U	6,800 U	1,100 U	290 U	6,600 U	1,400 U
2,3,4,6-Tetrachlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	1,000 U	620 U	500 U	280 U	1,400 U	220 U	800 U	830 U	230 U	6,400 U	6,800 U	1,100 U	290 U	6,600 U	1,400 U
2,4,6-Trichlorophenol	1,000 U	620 U	500 U	280 U	1,400 U	220 U	800 U	830 U	230 U	6,400 U	6,800 U	1,100 U	290 U	6,600 U	1,400 U
2,4-Dichlorophenol	1,000 U	620 U	500 U	280 U	1,400 U	220 U	800 U	830 U	230 U	6,400 U	6,800 U	1,100 U	290 U	6,600 U	1,400 U
2,4-Dimethylphenol	1,000 U	**440 J**	**410 J**	**190 J**	1,400 U	220 U	800 U	830 U	230 U	**3,200 J**	6,800 U	1,100 U	**1,200**	6,600 U	1,400 U
2,4-Dinitrophenol	4,900 U	3,000 U	2,400 U	1,400 U	6,700 U	1,100 U	3,900 U	4,000 U	1,100 U	31,000 U	33,000 U	5,500 U	1,400 U	32,000 U	6,900 U
2,4-Dinitrotoluene	1,000 U	620 U	500 U	280 U	1,400 U	220 U	800 U	830 U	230 U	6,400 U	6,800 U	1,100 U	290 U	6,600 U	1,400 U
2,6-Dichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	1,000 U	620 U	500 U	280 U	1,400 U	220 U	800 U	830 U	230 U	6,400 U	6,800 U	1,100 U	290 U	6,600 U	1,400 U
2-Acetylaminofluorene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	1,000 U	620 U	500 U	280 U	1,400 U	220 U	800 U	830 U	230 U	6,400 U	6,800 U	1,100 U	290 U	6,600 U	1,400 U
2-Chlorophenol	1,000 U	620 U	500 U	280 U	1,400 U	220 U	800 U	830 U	230 U	6,400 U	6,800 U	1,100 U	290 U	6,600 U	1,400 U
2-Methylnaphthalene	**600 J**	**800**	**360 J**	**710**	**1,500**	**220 J**	**230 J**	**180 J**	230 U	**13,000**	**2,200 J**	**160 J**	**4,000**	**7,500**	**1,400**
2-Methylphenol	1,000 U	**230 J**	**78 J**	**180 J**	1,400 U	220 U	800 U	830 U	230 U	**3,500 J**	6,800 U	1,100 U	**1,500**	6,600 U	1,400 U
2-Methylphenol	1,000 U	**230 J**	**78 J**	**180 J**	1,400 U	220 U	800 U	830 U	230 U	**3,500 J**	6,800 U	1,100 U	**1,500**	6,600 U	1,400 U
2-Naphthylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	4,900 U	3,000 U	2,400 U	1,400 U	6,700 U	1,100 U	3,900 U	4,000 U	1,100 U	31,000 U	33,000 U	5,500 U	1,400 U	32,000 U	6,900 U
2-Nitrophenol	1,000 U	620 U	500 U	280 U	1,400 U	220 U	800 U	830 U	230 U	6,400 U	6,800 U	1,100 U	290 U	6,600 U	1,400 U

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GENERAL MOTORS CORPORATION
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SAGINAW, MICHIGAN

	SD-7			SD-8			SD-9			SD-10			SD-11		
	(0 - 1.3') 6/21/95	(1.3 - 2.6') 6/21/95	(2.6 - 3.9') 6/21/95	(0 - 1.5') 6/21/95	(1.5 - 3') 6/21/95	(3 - 4.5') 6/21/95	(0 - 1.5') 6/21/95		(1.5 - 3') 6/21/95	(0 - 0.5') 6/20/95	(0.75 - 1.25') 6/20/95	(1.5 - 2') 6/20/95	(0 - 0.5') 6/20/95	(0.9 - 1.4') 6/20/95	(1.8 - 2.3') 6/20/95
Constituents (ug/kg)	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**DUP**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**
SVOCs (Cont'd.)															
2-Picoline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	2,000 U	1,200 U	990 U	560 U	2,800 U	440 U	1,600 U	1,700 U	470 U	13,000 U	14,000 U	2,300 U	590 U	13,000 U	2,800 U
3,3'-Dimethylbenzidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	4,900 U	3,000 U	2,400 U	1,400 U	6,700 U	1,100 U	3,900 U	4,000 U	1,100 U	31,000 U	33,000 U	5,500 U	1,400 U	32,000 U	6,900 U
4,6-Dinitro-2-methylphenol	4,900 U	3,000 U	2,400 U	1,400 U	6,700 U	1,100 U	3,900 U	4,000 U	1,100 U	31,000 U	33,000 U	5,500 U	1,400 U	32,000 U	6,900 U
4-Aminobiphenyl	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	1,000 U	620 U	500 U	280 U	1,400 U	220 U	800 U	830 U	230 U	6,400 U	6,800 U	1,100 U	290 U	6,600 U	1,400 U
4-Chloro-3-methylphenol	1,000 U	620 U	500 U	280 U	1,400 U	220 U	800 U	830 U	230 U	6,400 U	6,800 U	1,100 U	290 U	6,600 U	1,400 U
4-Chloroaniline	1,000 U	620 U	500 U	280 U	1,400 U	220 U	800 U	830 U	230 U	6,400 U	6,800 U	1,100 U	290 U	6,600 U	1,400 U
4-Chlorophenyl phenyl ether	1,000 U	620 U	500 U	280 U	1,400 U	220 U	800 U	830 U	230 U	6,400 U	6,800 U	1,100 U	290 U	6,600 U	1,400 U
4-Methylphenol	1,000 U	**300 J**	500 U	**140 J**	1,400 U	220 U	800 U	830 U	230 U	6,400 U	6,800 U	1,100 U	**1,200**	6,600 U	1,400 U
4-Nitroaniline	4,900 U	3,000 U	2,400 U	1,400 U	6,700 U	1,100 U	3,900 U	4,000 U	1,100 U	31,000 U	33,000 U	5,500 U	1,400 UJ	32,000 U	6,900 U
4-Nitrophenol	4,900 U	3,000 U	2,400 U	1,400 U	6,700 U	1,100 U	3,900 U	4,000 U	1,100 U	31,000 U	33,000 U	5,500 U	1,400 U	32,000 U	6,900 U
4-Nitroquinoline1-oxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	1,000 U	620 U	500 U	280 U	1,400 U	220 U	800 U	830 U	230 U	6,400 U	6,800 U	1,100 U	**100 J**	6,600 U	1,400 U
Acenaphthylene	1,000 U	620 U	500 U	280 U	1,400 U	220 U	800 U	830 U	230 U	6,400 U	6,800 U	1,100 U	290 U	6,600 U	1,400 U
Acetophenone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha,alpha-Dimethyl phenethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	1,000 U	620 U	500 U	280 U	1,400 U	220 U	**85 J**	**100 J**	230 U	**1,000 J**	6,800 U	1,100 U	**690**	6,600 U	**220 J**
Benzo(a)anthracene	1,000 U	620 U	**69 J**	280 U	1,400 U	220 U	800 U	**550 J**	230 U	6,400 U	6,800 U	1,100 U	**160 J**	6,600 U	1,400 U
Benzo(a)pyrene	1,000 U	620 U	500 U	280 U	1,400 U	220 U	**330 J**	**640 J**	230 U	6,400 U	6,800 U	1,100 U	**73 J**	6,600 U	1,400 U
Benzo(b)fluoranthene	1,000 U	620 U	500 U	280 U	1,400 U	220 U	**580 J**	**1,100**	230 U	6,400 U	6,800 U	1,100 U	**140 J**	6,600 U	1,400 U
Benzo(g,h,i)perylene	1,000 U	620 U	500 U	280 U	1,400 U	220 U	**140 J**	**220 J**	230 U	6,400 U	6,800 U	1,100 U	**45 J**	6,600 U	1,400 U
Benzo(k)fluoranthene	1,000 U	620 U	500 U	280 U	1,400 U	220 U	800 U	**390 J**	230 U	6,400 U	6,800 U	1,100 U	290 U	6,600 U	1,400 U
Benzyl alcohol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	1,000 U	620 U	500 U	280 U	1,400 U	220 U	800 U	830 U	230 U	6,400 U	6,800 U	1,100 U	290 U	6,600 U	1,400 U
bis(2-Chloroethyl)ether	1,000 U	620 U	500 U	280 U	1,400 U	220 U	800 U	830 U	230 U	6,400 U	6,800 U	1,100 U	290 U	6,600 U	1,400 U
bis(2-Ethylhexyl)phthalate	**470 J**	**550 J**	**510**	280 U	1,400 U	**35 J**	800 U	830 U	230 U	6,400 U	6,800 U	1,100 U	**99 J**	6,600 U	**230 J**
Butyl benzyl phthalate	1,000 U	620 U	500 U	280 U	1,400 U	220 U	800 U	830 U	230 U	6,400 U	6,800 U	1,100 U	290 U	6,600 U	1,400 U
Carbazole	1,000 U	620 U	500 U	280 U	1,400 U	220 U	800 U	830 U	230 U	6,400 U	6,800 U	1,100 U	**310**	6,600 U	1,400 U
Chrysene	1,000 U	620 U	**86 J**	280 U	1,400 U	220 U	**490 J**	**770 J**	230 U	6,400 U	6,800 U	1,100 U	**200 J**	6,600 U	1,400 U
Di-n-butyl phthalate	1,000 U	620 U	500 U	280 U	1,400 U	**43 J**	800 U	830 U	230 U	**7,300**	6,800 U	1,100 U	290 U	**6,200 J**	**1,200 J**
Di-n-octyl phthalate	**940 J**	**1,400**	**1,200**	280 U	1,400 U	220 U	800 U	830 U	230 U	6,400 U	6,800 U	1,100 U	290 U	6,600 U	1,400 U
Diallate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	1,000 U	620 U	500 U	280 U	1,400 U	220 U	800 U	830 U	230 U	6,400 U	6,800 U	1,100 U	290 U	6,600 U	1,400 U
Dibenzofuran	**190 J**	**170 J**	**73 J**	**120 J**	**260 J**	**48 J**	**89 J**	830 U	230 U	**3,000 J**	6,800 U	1,100 U	**850**	**1,600 J**	**390 J**
Diethyl phthalate	1,000 U	620 U	500 U	280 U	1,400 U	220 U	800 U	830 U	230 U	6,400 U	6,800 U	1,100 U	290 U	6,600 U	1,400 U
Dimethyl phthalate	1,000 U	620 U	500 U	280 U	1,400 U	220 U	800 U	830 U	230 U	6,400 U	6,800 U	1,100 U	290 U	6,600 U	1,400 U

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SAGINAW, MICHIGAN

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Constituents (ug/kg)	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**DUP**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**
SVOCs (Cont'd.)															
Diphenylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl methacrylate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl methanesulfonate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	**270 J**	**150 J**	**150 J**	280 U	**210 J**	**60 J**	**1,200**	**1,700**	**31 J**	**1,800 J**	6,800 U	1,100 U	**1,900**	**1,200 J**	**310 J**
Fluorene	1,000 U	620 U	500 U	280 U	1,400 U	220 U	800 U	830 U	230 U	6,400 U	6,800 U	1,100 U	**620**	6,600 U	**470 J**
Hexachlorobenzene	1,000 U	620 U	500 U	280 U	1,400 U	220 U	800 U	830 U	230 U	6,400 U	6,800 U	1,100 U	290 U	6,600 U	1,400 U
Hexachlorobutadiene	1,000 U	620 U	500 U	280 U	1,400 U	220 U	800 U	830 U	230 U	6,400 U	6,800 U	1,100 U	290 U	6,600 U	1,400 U
Hexachlorocyclopentadiene	1,000 U	620 U	500 U	280 U	1,400 U	220 U	800 U	830 U	230 U	6,400 U	6,800 U	1,100 U	290 U	6,600 U	1,400 U
Hexachloroethane	1,000 U	620 U	500 U	280 U	1,400 U	220 U	800 U	830 U	230 U	6,400 U	6,800 U	1,100 U	290 U	6,600 U	1,400 U
Hexachloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	1,000 U	620 U	500 U	280 U	1,400 U	220 U	**140 J**	**240 J**	230 U	6,400 U	6,800 U	1,100 U	290 U	6,600 U	1,400 U
Isophorone	1,000 U	**380 J**	500 U	280 U	1,400 U	220 U	800 U	830 U	230 U	6,400 U	6,800 U	1,100 U	290 U	6,600 U	1,400 U
Isosafrole, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl methanesulfonate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	1,000 U	620 U	500 U	280 U	1,400 U	220 U	800 U	830 U	230 U	6,400 U	6,800 U	1,100 U	290 U	6,600 U	1,400 U
N-Nitrosodi-n-butylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	1,000 U	620 U	500 U	280 U	1,400 U	220 U	800 U	830 U	230 U	6,400 U	6,800 U	1,100 U	290 U	6,600 U	1,400 U
N-Nitrosomethylethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	**600 J**	**820**	**330 J**	**710**	**1,500**	**220 J**	**250 J**	**200 J**	230 U	**12,000**	**2,100 J**	**180 J**	**3,600**	**6,300 J**	**990 J**
Nitrobenzene	1,000 U	620 U	500 U	280 U	1,400 U	220 U	800 U	830 U	230 U	6,400 U	6,800 U	1,100 U	290 U	6,600 U	1,400 U
o-Toluidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Chlorobenzilate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Phenylene diamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	4,900 U	3,000 U	2,400 U	1,400 U	6,700 U	1,100 U	3,900 U	4,000 U	1,100 U	31,000 U	33,000 U	5,500 U	1,400 U	32,000 U	6,900 U
Phenacetin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	**450 J**	**430 J**	**240 J**	**290**	**720 J**	**140 J**	**760 J**	**1,000**	230 U	**6,700**	**860 J**	1,100 U	**2,100**	**3,700 J**	**890 J**
Phenol	1,000 U	**300 J**	**79 J**	280 U	1,400 U	220 U	800 U	**86 J**	230 U	**5,100 J**	6,800 U	1,100 U	**2,200**	6,600 U	1,400 U
Pronamide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	**210 J**	**120 J**	**120 J**	280 U	**220 J**	**42 J**	**540 J**	**890**	230 U	**1,300 J**	6,800 U	1,100 U	**240 J**	**830 J**	**310 J**
Safrole, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetraethyl Dithiopyrophosphate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-8
SEDIMENT ANALYTICAL DATA
ORGANIC COMPOUNDS SEDIMENT ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

	SD-7			SD-8			SD-9			SD-10			SD-11		
	(0 - 1.3') 6/21/95	(1.3 - 2.6') 6/21/95	(2.6 - 3.9') 6/21/95	(0 - 1.5') 6/21/95	(1.5 - 3') 6/21/95	(3 - 4.5') 6/21/95	(0 - 1.5') 6/21/95		(1.5 - 3') 6/21/95	(0 - 0.5') 6/20/95	(0.75 - 1.25') 6/20/95	(1.5 - 2') 6/20/95	(0 - 0.5') 6/20/95	(0.9 - 1.4') 6/20/95	(1.8 - 2.3') 6/20/95
Constituents (ug/kg)	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**DUP**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**
PCBs															
Aroclor-1016	200 U	250 U	250 U	280 U	280 U	220 U	200 U	210 U	230 U	320 UJ	340 U	230 U	290 U	330 U	350 U
Aroclor-1221	200 U	250 U	250 U	280 U	280 U	220 U	200 U	210 U	230 U	320 UJ	340 U	230 U	290 U	330 U	350 U
Aroclor-1232	200 U	250 U	250 U	280 U	280 U	220 U	200 U	210 U	230 U	320 UJ	340 U	230 U	290 U	330 U	350 U
Aroclor-1242	200 U	**980**	250 U	280 U	280 U	220 U	200 U	210 U	230 U	320 UJ	340 U	230 U	290 U	330 U	350 U
Aroclor-1248	200 U	250 U	250 U	280 U	280 U	220 U	**290**	**330**	230 U	320 UJ	**150 J**	230 U	290 U	330 U	**230 J**
Aroclor-1254	**630**	**1,300**	**300**	280 U	280 U	220 U	200 U	210 U	230 U	320 UJ	340 U	230 U	290 U	330 U	350 U
Aroclor-1260	200 U	500 U	250 U	280 U	280 U	220 U	**120 J**	**120 J**	230 U	**320 J**	**650**	230 U	290 U	330 U	350 U
Total Aroclors	**630**	**2,280**	**300**	ND	ND	ND	**410**	**450**	ND	**320**	**800**	ND	ND	ND	**230**
Pesticide/Herbicide															
2,4,5-T	30 U	38 U	38 U	43 U	42 U	34 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP(Silvex)	30 U	38 U	38 U	43 U	42 U	34 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	120 U	150 U	150 U	170 U	170 U	130 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDD	16 U	50 U	20 U	2.8 U	5.6 U*	8.9 U*	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	16 U	50 U	20 U	2.8 U	5.6 U*	8.9 U*	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	16 U	50 U	20 U	2.8 U	5.6 U*	8.9 U*	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	8.1 U	25 U	10 U	1.5 U	2.8 U*	4.5 U*	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-BHC	8.1 U	25 U	10 U	1.5 U	2.8 U*	4.5 U*	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	8.1 U	25 U	10 U	2.8 U	2.8 U*	4.5 U*	NA	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	8.1 U	25 U	10 U	1.5 U	2.8 U*	4.5 U*	NA	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	8.1 U	25 U	10 U	1.5 U	2.8 U*	4.5 U*	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	16 U	50 U	20 U	2.8 U	5.6 U*	8.9 U*	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	12 UJ	15 UJ	15 UJ	17 UJ	17 UJ	13 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	8.1 U	25 U	10 U	2.8 U	2.8 U*	4.5 U*	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	16 U	50 U	20 U	2.8 U	5.6 U*	8.9 U*	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	16 U	50 U	20 U	2.8 U	5.6 U*	8.9 U*	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	16 U	50 U	20 U	2.8 U	5.6 U*	8.9 U*	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	16 U	50 U	20 U	2.8 U	5.6 U*	8.9 U*	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-BHC (Lindane)	8.1 U	25 U	10 U	1.5 U	2.8 U*	4.5 U*	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	8.1 U	25 U	10 U	2.8 U	2.8 U*	4.5 U*	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor epoxide	8.1 U	25 U	10 U	1.5 U	2.8 U*	4.5 U*	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	8.1 U	25 U	10 U	1.5 U	2.8 U*	4.5 U*	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	9.8 U	25 U	12 U	14 U	13 U	11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	**210 ***	400 U	160 U	140 U	130 U	110 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	81 U	250 U	100 U	43 U	42 U	34 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	410 U	1,300 U	500 U	150 U	140 U	110 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dioxin/Furan															
2,3,7,8-TCDD	**0.013**	**0.0064 J**	**0.011**	**0.0028 J**	**0.0026 J**	**0.0018 J**	NA	NA	NA	NA	NA	NA	NA	NA	NA
HxCDDs, Total	**0.079**	**0.095**	**0.2**	**0.037**	**0.049**	**0.064**	NA	NA	NA	NA	NA	NA	NA	NA	NA
HxCDFs, Total	**0.082**	**0.37**	**0.48**	**0.075**	**0.057**	**0.044**	NA	NA	NA	NA	NA	NA	NA	NA	NA
PeCDDs, Total	0.0065 U	0.011 U	**0.05**	0.0059 U	0.0054 U	0.0065 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
PeCDFs, Total	**0.16**	**2.5**	**1.3**	**0.35 J**	**0.33 J**	**0.12**	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCDDs, Total	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCDFs, Total	**0.39**	**6.6**	**2.4**	**0.73**	**0.72**	**0.28**	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD TEQ	**0.047**	**0.65**	**0.29**	**0.056**	**0.039**	**0.021**	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-8
SEDIMENT ANALYTICAL DATA
ORGANIC COMPOUNDS SEDIMENT ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

	SD-12				SD-13			SD-14			SD-15			SD-16		
	(0 - 0.5') 6/20/95	(1.05 - 1.55') 6/20/95		(2.1 - 2.6') 6/20/95	(0 - 0.5') 6/20/95	(1.45 - 1.95') 6/20/95	(2.9 - 3.4') 6/20/95	(0 - 0.5') 6/20/95	(0.9 - 1.4') 6/20/95	(1.8 - 2.3') 6/20/95	(0 - 0.5') 6/20/95	(0.9 - 1.4') 6/20/95	(1.8 - 2.3') 6/20/95	(0 - 0.5') 6/20/95	(1.1 - 1.6') 6/20/95	(2.2 - 2.7') 6/20/95
Constituents (ug/kg)	**FS**	**FS**	**DUP**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**
VOCs																
1,1,1,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	13 U	18 U	16 U	10 U	15 U	18 U	9.0 UJ	13 U	18 U	10 U	14 U	14 U	9.2 U	10 UJ	7.8 U	8.1 UJ
1,1,2,2-Tetrachloroethane	13 U	18 U	16 U	10 U	15 U	18 UJ	9.0 UJ	13 U	18 U	10 U	14 U	14 U	9.2 U	R	7.8 UJ	R
1,1,2-Trichloroethane	13 U	18 U	16 U	10 U	15 U	18 U	9.0 UJ	13 U	18 U	10 U	14 U	14 U	9.2 U	10 UJ	7.8 U	8.1 UJ
1,1-Dichloroethane	13 U	18 U	16 U	10 U	15 U	18 U	9.0 UJ	13 U	18 U	10 U	14 U	14 U	9.2 U	10 UJ	7.8 U	8.1 UJ
1,1-Dichloroethene	13 U	18 U	16 U	10 U	15 U	18 U	9.0 UJ	13 U	18 U	10 U	14 U	14 U	9.2 U	10 UJ	7.8 U	8.1 UJ
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	13 U	18 U	16 U	10 U	15 U	18 UJ	9.0 UJ	13 U	18 U	10 U	14 U	14 U	9.2 U	R	7.8 U	R
1,2-Dichloroethane	13 U	18 U	16 U	10 U	15 U	18 U	9.0 UJ	13 U	18 U	10 U	14 U	14 U	9.2 U	10 UJ	7.8 UJ	8.1 UJ
1,2-Dichloroethene, Total	13 U	18 U	16 U	10 U	15 U	18 U	9.0 UJ	13 U	18 U	10 U	14 U	14 U	9.2 U	10 UJ	7.8 U	8.1 UJ
1,2-Dichloropropane	13 U	18 U	16 U	10 U	15 U	18 U	9.0 UJ	13 U	18 U	10 U	14 U	14 U	9.2 U	10 UJ	7.8 U	8.1 UJ
1,3-Dichlorobenzene	13 U	18 U	16 U	10 U	15 U	18 UJ	9.0 UJ	13 U	18 U	10 U	14 U	14 U	9.2 U	R	7.8 UJ	R
1,4-Dichlorobenzene	13 U	18 U	16 U	10 U	15 U	18 UJ	9.0 UJ	13 U	18 U	10 U	14 U	14 U	9.2 U	R	7.8 UJ	R
1,4-Dioxane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	**18 J**	**45 J**	**11 J**	**46 J**	**30 J**	**46 J**	**7.6 J**	**24 J**	**31 J**	**18 J**	**37 J**	**28 J**	**23 J**	**26 J**	**7.3 J**	**23 J**
2-Chloro-1,3-butadiene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	130 U	180 U	160 U	100 U	150 U	180 UJ	90 UJ	130 U	180 U	100 U	140 U	140 U	92 U	R	78 UJ	R
3-Chloro-1-propene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	130 U	180 U	160 U	100 U	150 U	180 UJ	90 UJ	130 U	180 U	100 U	140 U	140 U	92 U	R	78 UJ	R
Acetone	**96 J**	**240**	**59 J**	**240**	**120 J**	**190 J**	**31 J**	**130**	**110 JB**	100 U	**210**	**150**	**100**	**99 J**	**26 J**	**110 J**
Acetonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	**9.2 J**	18 U	16 U	10 U	**8.4 J**	18 U	9.0 UJ	**9.1 J**	18 U	10 U	14 U	14 U	9.2 U	**36 J**	7.8 U	8.1 UJ
Bromodichloromethane	13 U	18 U	16 U	10 U	15 U	18 U	9.0 UJ	13 U	18 U	10 U	14 U	14 U	9.2 U	10 UJ	7.8 U	8.1 UJ
Bromoform	13 U	18 U	16 U	10 U	15 U	18 U	9.0 UJ	13 U	18 U	10 U	14 U	14 U	9.2 U	10 UJ	7.8 U	8.1 UJ
Bromomethane	13 U	18 U	16 U	10 U	15 U	18 U	9.0 UJ	13 U	18 U	10 U	14 U	14 U	9.2 U	10 UJ	7.8 U	8.1 UJ
Carbon disulfide	13 U	18 U	16 U	10 U	15 U	18 U	9.0 UJ	13 U	18 U	10 U	14 U	14 U	9.2 U	10 UJ	7.8 U	**4.6 J**
Carbon tetrachloride	13 U	18 U	16 U	10 U	15 U	18 U	9.0 UJ	13 U	18 U	10 U	14 U	14 U	9.2 U	10 UJ	7.8 U	8.1 UJ
Chlorobenzene	13 U	18 U	16 U	10 U	15 U	18 UJ	9.0 UJ	13 U	18 U	10 U	14 U	14 U	9.2 U	R	7.8 UJ	R
Chlorodibromomethane	13 U	18 U	16 U	10 U	15 U	18 U	9.0 UJ	13 U	18 U	10 U	14 U	14 U	9.2 U	10 UJ	7.8 U	8.1 UJ
Chloroethane	13 U	18 U	16 U	10 U	15 U	18 U	9.0 UJ	13 U	18 U	10 U	14 U	14 U	9.2 U	10 UJ	7.8 U	8.1 UJ
Chloroform	13 U	18 U	16 U	10 U	15 U	18 U	9.0 UJ	13 U	18 U	10 U	14 U	14 U	9.2 U	10 UJ	7.8 U	8.1 UJ
Chloromethane	13 U	18 U	16 U	10 U	15 U	18 U	9.0 UJ	13 U	18 U	10 U	14 U	14 U	9.2 U	10 UJ	7.8 U	8.1 UJ
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	13 U	18 U	16 U	10 U	15 U	18 U	9.0 UJ	13 U	18 U	10 U	14 U	14 U	9.2 U	10 UJ	7.8 U	8.1 UJ
Dibromomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	13 U	18 U	16 U	10 U	15 U	18 UJ	9.0 UJ	13 U	18 U	10 U	14 U	14 U	9.2 U	**4.4 J**	7.8 UJ	R
Iodomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isobutyl alcohol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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ORGANIC COMPOUNDS SEDIMENT ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

	SD-12				SD-13			SD-14			SD-15			SD-16		
	(0 - 0.5') 6/20/95	(1.05 - 1.55') 6/20/95		(2.1 - 2.6') 6/20/95	(0 - 0.5') 6/20/95	(1.45 - 1.95') 6/20/95	(2.9 - 3.4') 6/20/95	(0 - 0.5') 6/20/95	(0.9 - 1.4') 6/20/95	(1.8 - 2.3') 6/20/95	(0 - 0.5') 6/20/95	(0.9 - 1.4') 6/20/95	(1.8 - 2.3') 6/20/95	(0 - 0.5') 6/20/95	(1.1 - 1.6') 6/20/95	(2.2 - 2.7') 6/20/95
Constituents (ug/kg)	**FS**	**FS**	**DUP**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**
VOCs (Cont'd.)																
Methyl methacrylate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	13 U	26 U	25 U	17 U	330 U	240 U	160 UJ	57 U	81 U	28 U	490 U	75 U	84 U	71 UJ	5.9 U	24 UJ
Propionitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyridine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	13 U	18 U	16 U	10 U	15 U	18 UJ	9.0 UJ	13 U	18 U	10 U	14 U	14 U	9.2 U	R	7.8 UJ	R
Tetrachloroethene	13 U	18 U	16 U	10 U	15 U	18 UJ	9.0 UJ	13 U	18 U	10 U	14 U	14 U	9.2 U	R	7.8 UJ	R
Toluene	13 U	18 U	16 U	10 U	15 U	18 UJ	9.0 UJ	13 U	18 U	10 U	14 U	14 U	9.2 U	**11 J**	7.8 UJ	R
trans-1,2-Dichloroethene	13 U	18 U	16 U	10 U	15 U	18 U	9.0 UJ	13 U	18 U	10 U	14 U	14 U	9.2 U	10 UJ	7.8 U	8.1 UJ
trans-1,3-Dichloropropene	13 U	18 U	16 U	10 U	15 U	18 U	9.0 UJ	13 U	18 U	10 U	14 U	14 U	9.2 U	10 UJ	7.8 U	8.1 UJ
trans-1,4-Dichloro-2-butene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	13 U	18 U	16 U	10 U	15 U	18 U	9.0 UJ	13 U	18 U	10 U	14 U	14 U	9.2 U	10 UJ	7.8 U	8.1 UJ
Trichlorofluoromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	13 U	18 U	16 U	10 U	15 U	18 U	9.0 UJ	13 U	18 U	10 U	14 U	14 U	9.2 U	10 UJ	7.8 U	8.1 UJ
Xylenes, Total	13 U	18 U	16 U	10 U	15 U	18 UJ	9.0 UJ	13 U	18 U	10 U	14 U	14 U	9.2 U	**19 J**	7.8 UJ	8.1 UJ
SVOCs																
1,2,4,5-Tetrachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	1,700 U	2,300 U	2,100 U	1,300 U	2,600 U	3,000 U	740 UJ	1,700 U	2,300 U	1,400 U	2,400 U	1,900 U	**68 J**	1,300 U	1,000 U	540 U
1,2-Dichlorobenzene	13 U	18 U	16 U	10 U	15 U	18 UJ	9.0 UJ	13 U	18 U	10 U	14 U	14 U	9.2 U	R	7.8 U	R
1,3,5-Trinitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	13 U	18 U	16 U	10 U	15 U	18 UJ	9.0 UJ	13 U	18 U	10 U	14 U	14 U	9.2 U	R	7.8 UJ	R
1,3-Dinitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	13 U	18 U	16 U	10 U	15 U	18 UJ	9.0 UJ	13 U	18 U	10 U	14 U	14 U	9.2 U	R	7.8 UJ	R
1,4-Naphthoquinone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(dichloropropane)	1,700 U	2,300 UJ	2,100 U	1,300 U	2,600 U	3,000 U	740 UJ	1,700 UJ	2,300 UJ	1,400 UJ	2,400 U	1,900 U	300 U	1,300 U	1,000 UJ	540 U
2,3,4,6-Tetrachlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	1,700 U	2,300 U	2,100 U	1,300 U	2,600 U	3,000 U	740 U	1,700 U	2,300 U	1,400 U	2,400 U	1,900 U	300 U	1,300 U	1,000 UJ	540 U
2,4,6-Trichlorophenol	1,700 U	2,300 U	2,100 U	1,300 U	2,600 U	3,000 U	740 U	1,700 U	2,300 U	1,400 U	2,400 U	1,900 U	300 U	1,300 U	1,000 UJ	540 U
2,4-Dichlorophenol	1,700 U	2,300 U	2,100 U	1,300 U	2,600 U	3,000 U	740 U	1,700 U	2,300 U	1,400 U	2,400 U	1,900 U	300 U	1,300 U	1,000 UJ	540 U
2,4-Dimethylphenol	**1,300 J**	**1,100 J**	**1,000 J**	1,300 U	**940 J**	3,000 U	**180 J**	**910 J**	**600 J**	1,400 U	**610 J**	**480 J**	**66 J**	**940 J**	**880 J**	**200 J**
2,4-Dinitrophenol	8,300 U	11,000 U	10,000 U	6,400 U	12,000 U	14,000 U	3,600 U	8,400 U	11,000 U	6,600 U	11,000 UJ	9,200 UJ	1,500 UJ	6,400 U	5,000 UJ	2,600 U
2,4-Dinitrotoluene	1,700 U	2,300 U	2,100 U	1,300 U	2,600 U	3,000 U	740 UJ	1,700 U	2,300 U	1,400 U	2,400 U	1,900 U	300 U	1,300 U	1,000 UJ	540 U
2,6-Dichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	1,700 U	2,300 U	2,100 U	1,300 U	2,600 U	3,000 U	740 UJ	1,700 U	2,300 U	1,400 U	2,400 U	1,900 U	300 U	1,300 U	1,000 UJ	540 U
2-Acetylaminofluorene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	1,700 U	2,300 U	2,100 U	1,300 U	2,600 U	3,000 U	740 UJ	1,700 U	2,300 U	1,400 U	2,400 U	1,900 U	300 U	1,300 U	1,000 UJ	540 U
2-Chlorophenol	1,700 U	2,300 U	2,100 U	1,300 U	2,600 U	3,000 U	740 U	1,700 U	2,300 U	1,400 U	2,400 U	1,900 U	300 U	1,300 U	1,000 UJ	540 U
2-Methylnaphthalene	**8,900**	**11,000**	**10,000**	**890 J**	**5,500**	**6,100**	**760 J**	**4,600**	**5,400**	**1,100 J**	**3,900**	**4,000**	**600**	**3,900**	**7,000 J**	**530 J**
2-Methylphenol	**1,900**	**600 J**	**680 J**	1,300 U	**720 J**	3,000 U	**100 J**	**970 J**	2,300 U	1,400 U	**610 J**	**320 J**	**41 J**	**770 J**	**650 J**	540 U
2-Methylphenol	**1,900**	**600 J**	**680 J**	1,300 U	**720 J**	3,000 U	**100 J**	**970 J**	2,300 U	1,400 U	**610 J**	**320 J**	**41 J**	**770 J**	**650 J**	540 U
2-Naphthylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	8,300 U	11,000 UJ	10,000 U	6,400 U	12,000 U	14,000 U	3,600 UJ	8,400 U	11,000 U	6,600 U	11,000 U	9,200 U	1,500 U	6,400 U	5,000 UJ	2,600 U
2-Nitrophenol	1,700 U	2,300 U	2,100 U	1,300 U	2,600 U	3,000 U	740 U	1,700 U	2,300 U	1,400 U	2,400 U	1,900 U	300 U	1,300 U	1,000 UJ	540 U

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TABLE A-8
SEDIMENT ANALYTICAL DATA
ORGANIC COMPOUNDS SEDIMENT ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

	SD-12				SD-13			SD-14			SD-15			SD-16		
	(0 - 0.5') 6/20/95	(1.05 - 1.55') 6/20/95		(2.1 - 2.6') 6/20/95	(0 - 0.5') 6/20/95	(1.45 - 1.95') 6/20/95	(2.9 - 3.4') 6/20/95	(0 - 0.5') 6/20/95	(0.9 - 1.4') 6/20/95	(1.8 - 2.3') 6/20/95	(0 - 0.5') 6/20/95	(0.9 - 1.4') 6/20/95	(1.8 - 2.3') 6/20/95	(0 - 0.5') 6/20/95	(1.1 - 1.6') 6/20/95	(2.2 - 2.7') 6/20/95
Constituents (ug/kg)	**FS**	**FS**	**DUP**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**
SVOCs (Cont'd.)																
2-Picoline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	3,400 U	4,600 U	4,300 U	2,600 U	5,100 U	6,000 U	1,500 UJ	3,500 U	4,700 U	2,700 U	4,700 U	3,800 U	610 U	2,600 U	2,000 UJ	1,100 U
3,3'-Dimethylbenzidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	8,300 U	11,000 U	10,000 U	6,400 U	12,000 U	14,000 U	3,600 UJ	8,400 U	11,000 U	6,600 U	11,000 U	9,200 U	1,500 U	6,400 U	5,000 UJ	2,600 U
4,6-Dinitro-2-methylphenol	8,300 U	11,000 U	10,000 U	6,400 U	12,000 U	14,000 U	3,600 U	8,400 U	11,000 U	6,600 U	11,000 U	9,200 U	1,500 U	6,400 U	5,000 UJ	2,600 U
4-Aminobiphenyl	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	1,700 U	2,300 U	2,100 U	1,300 U	2,600 U	3,000 U	740 UJ	1,700 U	2,300 U	1,400 U	2,400 U	1,900 U	300 U	1,300 U	1,000 UJ	540 U
4-Chloro-3-methylphenol	1,700 U	2,300 U	2,100 U	1,300 U	2,600 U	3,000 U	740 U	1,700 U	2,300 U	1,400 U	2,400 U	1,900 U	300 U	1,300 U	1,000 UJ	540 U
4-Chloroaniline	1,700 U	2,300 U	2,100 U	1,300 U	2,600 U	3,000 U	740 UJ	1,700 U	2,300 U	1,400 U	2,400 U	1,900 U	300 U	1,300 U	1,000 UJ	540 U
4-Chlorophenyl phenyl ether	1,700 U	2,300 U	2,100 U	1,300 U	2,600 U	3,000 U	740 UJ	1,700 U	2,300 U	1,400 U	2,400 U	1,900 U	300 U	1,300 U	1,000 UJ	540 U
4-Methylphenol	**1,400 J**	**650 J**	**690 J**	1,300 U	2,600 U	3,000 U	**160 J**	**640 J**	2,300 U	1,400 U	**550 J**	**350 J**	**58 J**	**580 J**	**730 J**	540 U
4-Nitroaniline	8,300 U	11,000 U	10,000 U	6,400 U	12,000 U	14,000 U	3,600 UJ	8,400 U	11,000 U	6,600 U	11,000 UJ	9,200 UJ	1,500 UJ	6,400 U	5,000 UJ	2,600 U
4-Nitrophenol	8,300 U	11,000 U	10,000 U	6,400 U	12,000 U	14,000 U	3,600 U	8,400 U	11,000 U	6,600 U	11,000 UJ	9,200 UJ	1,500 UJ	6,400 U	5,000 UJ	2,600 U
4-Nitroquinoline1-oxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	**540 J**	**670 J**	**660 J**	1,300 U	2,600 U	3,000 U	740 UJ	1,700 U	2,300 U	1,400 U	2,400 U	**290 J**	**53 J**	1,300 U	**380 J**	540 U
Acenaphthylene	1,700 U	2,300 U	2,100 U	1,300 U	2,600 U	3,000 U	740 UJ	1,700 U	2,300 U	1,400 U	2,400 U	1,900 U	300 U	1,300 U	1,000 UJ	540 U
Acetophenone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha,alpha-Dimethyl phenethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	**780 J**	**1,400 J**	**990 J**	**820 J**	**440 J**	**500 J**	**94 J**	**350 J**	**620 J**	**150 J**	2,400 U	**430 J**	**76 J**	**320 J**	**500 J**	540 U
Benzo(a)anthracene	1,700 U	**940 J**	2,100 U	1,300 U	2,600 U	3,000 U	**80 J**	1,700 U	2,300 U	1,400 U	2,400 U	**270 J**	**75 J**	1,300 U	**310 J**	540 U
Benzo(a)pyrene	**250 J**	**470 J**	**350 J**	1,300 U	2,600 U	3,000 U	740 UJ	1,700 U	2,300 U	1,400 U	2,400 U	1,900 U	300 U	1,300 U	**250 J**	540 U
Benzo(b)fluoranthene	**460 J**	**980 J**	**690 J**	**150 J**	2,600 U	3,000 U	740 UJ	1,700 U	**380 J**	1,400 U	2,400 U	1,900 U	**53 J**	1,300 U	**390 J**	540 U
Benzo(g,h,i)perylene	**200 J**	**290 J**	**220 J**	1,300 U	2,600 U	3,000 U	740 UJ	1,700 U	2,300 U	1,400 U	2,400 U	1,900 U	300 U	1,300 U	**150 J**	540 U
Benzo(k)fluoranthene	1,700 U	2,300 U	2,100 U	1,300 U	2,600 U	3,000 U	740 UJ	1,700 U	2,300 U	1,400 U	2,400 U	1,900 U	300 U	1,300 U	1,000 UJ	540 U
Benzyl alcohol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	1,700 U	2,300 U	2,100 U	1,300 U	2,600 U	3,000 U	740 UJ	1,700 U	2,300 U	1,400 U	2,400 U	1,900 U	300 U	1,300 U	1,000 UJ	540 U
bis(2-Chloroethyl)ether	1,700 U	2,300 U	2,100 U	1,300 U	2,600 U	3,000 U	740 UJ	1,700 U	2,300 U	1,400 U	2,400 U	1,900 U	300 U	1,300 U	1,000 UJ	**410 J**
bis(2-Ethylhexyl)phthalate	**290 J**	**1,100 J**	**650 J**	1,300 U	2,600 U	**750 J**	740 UJ	1,700 U	**1,100 J**	**230 J**	**280 J**	**1,100 J**	**99 J**	1,300 U	**190 J**	540 U
Butyl benzyl phthalate	1,700 U	2,300 U	2,100 U	1,300 U	2,600 U	3,000 U	740 UJ	1,700 U	2,300 U	1,400 U	2,400 UJ	1,900 UJ	300 UJ	1,300 U	1,000 UJ	540 U
Carbazole	1,700 U	2,300 U	2,100 U	1,300 U	2,600 U	3,000 U	740 UJ	1,700 U	2,300 U	1,400 U	2,400 U	1,900 U	300 U	1,300 U	**120 J**	540 U
Chrysene	**630 J**	**1,400 J**	**910 J**	**220 J**	2,600 U	**650 J**	**120 J**	**350 J**	**660 J**	1,400 U	**270 J**	**430 J**	**130 J**	1,300 U	**510 J**	**100 J**
Di-n-butyl phthalate	1,700 U	2,300 U	2,100 U	1,300 U	**540 J**	**4,500**	740 UJ	**7,600**	**1,500 J**	**1,200 J**	2,400 U	1,900 U	300 U	**2,100**	**360 J**	**5,600**
Di-n-octyl phthalate	1,700 U	**1,100 J**	2,100 U	1,300 U	2,600 U	**880 J**	740 UJ	1,700 U	**1,700 J**	1,400 U	2,400 U	1,900 U	300 U	1,300 U	1,000 UJ	540 U
Diallate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	1,700 U	2,300 U	2,100 U	1,300 U	2,600 U	3,000 U	740 UJ	1,700 U	2,300 U	1,400 U	2,400 U	1,900 U	300 U	1,300 U	1,000 UJ	540 U
Dibenzofuran	**2,200**	**2,400**	**2,500**	**200 J**	**1,200 J**	**1,300 J**	**150 J**	**1,100 J**	**1,600 J**	**300 J**	**910 J**	**930 J**	**110 J**	**900 J**	**940 J**	**120 J**
Diethyl phthalate	1,700 U	2,300 U	2,100 U	1,300 U	2,600 U	3,000 U	740 UJ	**760 J**	2,300 U	1,400 U	2,400 U	1,900 U	300 U	1,300 U	1,000 UJ	540 U
Dimethyl phthalate	1,700 U	2,300 U	2,100 U	1,300 U	2,600 U	3,000 U	740 UJ	1,700 U	2,300 U	1,400 U	2,400 U	1,900 U	300 U	1,300 U	1,000 UJ	540 U

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TABLE A-8
SEDIMENT ANALYTICAL DATA
ORGANIC COMPOUNDS SEDIMENT ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

	SD-12				SD-13			SD-14			SD-15			SD-16		
	(0 - 0.5') 6/20/95	(1.05 - 1.55') 6/20/95		(2.1 - 2.6') 6/20/95	(0 - 0.5') 6/20/95	(1.45 - 1.95') 6/20/95	(2.9 - 3.4') 6/20/95	(0 - 0.5') 6/20/95	(0.9 - 1.4') 6/20/95	(1.8 - 2.3') 6/20/95	(0 - 0.5') 6/20/95	(0.9 - 1.4') 6/20/95	(1.8 - 2.3') 6/20/95	(0 - 0.5') 6/20/95	(1.1 - 1.6') 6/20/95	(2.2 - 2.7') 6/20/95
Constituents (ug/kg)	**FS**	**FS**	**DUP**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**
SVOCs (Cont'd.)																
Diphenylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl methacrylate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl methanesulfonate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	**1,800**	**2,600**	**2,400**	**420 J**	**800 J**	**1,000 J**	**170 J**	**720 J**	**1,100 J**	**340 J**	**530 J**	**740 J**	**200 J**	**540 J**	**1,200 J**	**150 J**
Fluorene	**1,500 J**	**2,100 J**	**1,800 J**	**320 J**	2,600 U	**1,300 J**	**190 J**	**700 J**	**1,000 J**	**370 J**	**560 J**	**850 J**	**180 J**	1,300 U	**1,100 J**	540 U
Hexachlorobenzene	1,700 U	2,300 U	2,100 U	1,300 U	2,600 U	3,000 U	740 UJ	1,700 U	2,300 U	1,400 U	2,400 U	1,900 U	300 U	1,300 U	1,000 UJ	540 U
Hexachlorobutadiene	1,700 U	2,300 U	2,100 U	1,300 U	2,600 U	3,000 U	740 UJ	1,700 U	2,300 U	1,400 U	2,400 U	1,900 U	300 U	1,300 U	1,000 UJ	540 U
Hexachlorocyclopentadiene	1,700 U	2,300 U	2,100 U	1,300 U	2,600 U	3,000 U	740 UJ	1,700 U	2,300 U	1,400 U	2,400 U	1,900 U	300 U	1,300 U	1,000 UJ	540 U
Hexachloroethane	1,700 U	2,300 U	2,100 U	1,300 U	2,600 U	3,000 U	740 UJ	1,700 U	2,300 U	1,400 U	2,400 U	1,900 U	300 U	1,300 U	1,000 UJ	540 U
Hexachloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	1,700 U	2,300 U	2,100 U	1,300 U	2,600 U	3,000 U	740 UJ	1,700 U	2,300 U	1,400 U	2,400 U	1,900 U	300 U	1,300 U	1,000 UJ	540 U
Isophorone	1,700 U	**1,500 J**	**740 J**	1,300 U	2,600 U	3,000 U	740 UJ	1,700 U	2,300 U	1,400 U	2,400 U	1,900 U	300 U	1,300 U	1,000 UJ	540 U
Isosafrole, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl methanesulfonate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	1,700 U	2,300 UJ	2,100 U	1,300 U	2,600 U	3,000 U	740 UJ	1,700 U	2,300 U	1,400 U	2,400 U	1,900 U	300 U	1,300 U	1,000 UJ	540 U
N-Nitrosodi-n-butylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	1,700 U	2,300 U	2,100 U	1,300 U	2,600 U	3,000 U	740 UJ	1,700 U	2,300 U	1,400 U	2,400 U	1,900 U	300 U	1,300 U	1,000 UJ	540 U
N-Nitrosomethylethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	**8,300**	**8,100**	**8,000**	**670 J**	**5,000**	**5,600**	**1,000 J**	**4,100**	**4,500**	**760 J**	**3,800**	**3,400**	**450**	**3,400**	**4,800 J**	**680**
Nitrobenzene	1,700 U	2,300 U	2,100 U	1,300 U	2,600 U	3,000 U	740 UJ	1,700 U	2,300 U	1,400 U	2,400 U	1,900 U	300 U	1,300 U	1,000 UJ	540 U
o-Toluidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Chlorobenzilate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Phenylene diamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	8,300 U	11,000 U	10,000 U	6,400 U	12,000 U	14,000 U	3,600 U	8,400 U	11,000 U	6,600 U	11,000 U	9,200 U	1,500 U	6,400 U	5,000 UJ	2,600 U
Phenacetin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	**5,000**	**6,200**	**5,400**	**800 J**	**2,500 J**	**3,000**	**620 J**	**2,200**	**2,900**	**780 J**	**1,700 J**	**2,300**	**430**	**1,900**	**3,400 J**	**430 J**
Phenol	**2,500**	**490 J**	**610 J**	1,300 U	2,600 U	3,000 U	740 U	**1,100 J**	**470 J**	1,400 U	**740 J**	1,900 U	**40 J**	**840 J**	**530 J**	540 U
Pronamide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	**900 J**	**1,500 J**	**1,400 J**	**280 J**	**500 J**	**720 J**	**120 J**	**400 J**	**900 J**	**350 J**	**410 J**	**690 J**	**180 J**	**330 J**	**700 J**	**98 J**
Safrole, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetraethyl Dithiopyrophosphate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-8
SEDIMENT ANALYTICAL DATA
ORGANIC COMPOUNDS SEDIMENT ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

	SD-12				SD-13			SD-14			SD-15			SD-16		
	(0 - 0.5') 6/20/95	(1.05 - 1.55') 6/20/95		(2.1 - 2.6') 6/20/95	(0 - 0.5') 6/20/95	(1.45 - 1.95') 6/20/95	(2.9 - 3.4') 6/20/95	(0 - 0.5') 6/20/95	(0.9 - 1.4') 6/20/95	(1.8 - 2.3') 6/20/95	(0 - 0.5') 6/20/95	(0.9 - 1.4') 6/20/95	(1.8 - 2.3') 6/20/95	(0 - 0.5') 6/20/95	(1.1 - 1.6') 6/20/95	(2.2 - 2.7') 6/20/95
Constituents (ug/kg)	**FS**	**FS**	**DUP**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**
PCBs																
Aroclor-1016	430 U	580 UJ	530 UJ	330 U	510 U	600 U	300 U	430 U	590 U	340 U	470 U	470 U	300 U	330 UJ	260 UJ	270 U
Aroclor-1221	430 U	580 U	530 UJ	330 U	510 U	600 U	300 U	430 U	590 U	340 U	470 U	470 U	300 U	330 UJ	260 UJ	270 U
Aroclor-1232	430 U	580 UJ	530 UJ	330 U	510 U	600 U	300 U	430 U	590 U	340 U	470 U	470 U	300 U	330 UJ	260 UJ	270 U
Aroclor-1242	430 U	580 UJ	530 UJ	330 U	510 U	600 U	300 U	430 U	590 U	340 U	470 U	470 U	300 U	330 UJ	260 UJ	270 U
Aroclor-1248	430 U	580 UJ	530 UJ	**460**	**330 J**	600 U	300 U	430 U	590 U	340 U	470 U	470 U	300 U	330 UJ	260 U	270 U
Aroclor-1254	430 U	**920 J**	530 UJ	**370**	510 U	**490 J**	300 U	430 U	590 U	340 U	470 U	470 U	300 U	**490**	**1,100 J**	**290**
Aroclor-1260	430 U	580 UJ	530 UJ	330 U	510 U	600 U	300 U	430 U	590 U	340 U	470 U	470 U	300 U	330 UJ	260 UJ	270 U
Total Aroclors	ND	**920**	ND	**830**	**330**	**490**	ND	ND	ND	ND	ND	ND	ND	**490**	**1,100**	**290**
Pesticide/Herbicide																
2,4,5-T	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP(Silvex)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-BHC (Lindane)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor epoxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dioxin/Furan																
2,3,7,8-TCDD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HxCDDs, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HxCDFs, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PeCDDs, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PeCDFs, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCDDs, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCDFs, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD TEQ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-8
SEDIMENT ANALYTICAL DATA
ORGANIC COMPOUNDS SEDIMENT ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

	SD-17				SD-18			SD-19			SD-20			SD-21			
	(0 - 0.5') 6/20/95		(0.95 - 1.45') 6/20/95	(1.9 - 2.4') 6/20/95	(0 - 0.5') 6/20/95	(2.25 - 2.75') 6/20/95	(4.5 - 5') 6/20/95	(0 - 0.5') 6/20/95	(1.75 - 2.25') 6/20/95	(3.5 - 4') 6/20/95	(0 - 0.5') 6/20/95	(0.7 - 1.2') 6/20/95	(1.4 - 1.9') 6/20/95	(0 - 0.5') 6/20/95	(0.65 - 1.15') 6/20/95	(1.3 - 1.8') 6/20/95	(0 - 1.2') 6/19/95
Constituents (ug/kg)	**FS**	**DUP**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**
VOCs																	
1,1,1,2-Tetrachloroethane	16 U	10 U	8.7 UJ	7.8 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	16 U	10 U	8.7 U	7.8 UJ	66 U	11 U	7.4 U	77 U	11 U	7.3 U	14 U	15 U	9.3 U	15 U	16 U	8.8 U	6.1 U
1,1,2,2-Tetrachloroethane	16 U	10 U	8.7 UJ	7.8 UJ	66 U	11 U	7.4 U	77 U	11 U	7.3 U	14 U	15 U	9.3 U	15 U	16 U	8.8 U	6.1 UJ
1,1,2-Trichloroethane	16 U	10 U	8.7 U	7.8 UJ	66 U	11 U	7.4 U	77 U	11 U	7.3 U	14 U	15 U	9.3 U	15 U	16 U	8.8 U	6.1 U
1,1-Dichloroethane	16 U	10 U	8.7 U	7.8 UJ	66 U	11 U	7.4 U	77 U	11 U	7.3 U	14 U	15 U	9.3 U	15 U	16 U	8.8 U	6.1 U
1,1-Dichloroethene	16 U	10 U	8.7 U	7.8 UJ	66 U	11 U	7.4 U	77 U	11 U	7.3 U	14 U	15 U	9.3 U	15 U	16 U	8.8 U	6.1 U
1,2,3-Trichloropropane	16 U	10 U	8.7 UJ	7.8 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	31 U	20 U	17 UJ	16 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	16 U	10 U	8.7 U	7.8 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	16 U	10 U	8.7 U	7.8 UJ	66 U	11 U	7.4 U	77 U	11 U	7.3 U	14 U	15 U	9.3 U	15 U	16 U	8.8 U	6.1 UJ
1,2-Dichloroethane	16 U	10 U	8.7 U	7.8 UJ	66 U	11 U	7.4 U	77 U	11 U	7.3 U	14 U	15 U	9.3 U	15 U	16 U	8.8 U	6.1 U
1,2-Dichloroethene, Total	NA	NA	NA	NA	66 U	11 U	7.4 U	77 U	11 U	7.3 U	14 U	15 U	9.3 U	15 U	16 U	8.8 U	6.1 U
1,2-Dichloropropane	16 U	10 U	8.7 U	7.8 UJ	66 U	11 U	7.4 U	77 U	11 U	7.3 U	14 U	15 U	9.3 U	15 U	16 U	8.8 U	6.1 UJ
1,3-Dichlorobenzene	16 U	10 U	8.7 U	7.8 UJ	66 U	11 U	7.4 U	77 U	11 U	7.3 U	14 U	15 U	9.3 U	15 U	16 U	8.8 U	6.1 U
1,4-Dichlorobenzene	16 U	10 U	8.7 U	7.8 UJ	66 U	11 U	7.4 U	77 U	11 U	7.3 U	14 U	15 U	9.3 U	15 U	16 U	8.8 U	6.1 UJ
1,4-Dioxane	R	R	R	R	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	**18 J**	**8.2 J**	**41 J**	**13 J**	**38 J**	**5.7 J**	**4.9 J**	**94 J**	**4.5 J**	73 U	**27 J**	**21 J**	**28 J**	150 U	**16 J**	**10 J**	61 U
2-Chloro-1,3-butadiene	16 U	10 UJ	8.7 UJ	7.8 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	160 U	100 UJ	87 UJ	78 UJ	660 U	110 U	74 U	770 U	110 U	73 U	140 U	150 U	93 U	150 U	160 U	88 U	61 UJ
3-Chloro-1-propene	16 U	10 U	8.7 U	7.8 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	160 U	100 U	87 UJ	78 UJ	660 U	110 U	74 U	770 U	110 U	73 U	140 U	150 U	93 U	150 U	160 U	88 U	61 UJ
Acetone	**89 J**	**40 J**	**190 J**	**53 J**	**160 J**	**24 J**	**21 J**	**610 J**	**37 J**	**9.7 J**	93 U	**120 J**	**120**	150 U	**98 J**	**83 J**	9.9 UJ
Acetonitrile	160 U	100 U	87 U	78 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	160 U	100 UJ	87 UJ	78 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	160 U	100 U	87 U	78 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	16 U	10 U	8.7 U	7.8 UJ	66 U	11 U	7.4 U	77 U	11 U	7.3 U	14 U	15 U	9.3 U	15 U	16 U	8.8 U	6.1 U
Bromodichloromethane	16 U	10 U	8.7 U	7.8 UJ	66 U	11 U	7.4 U	77 U	11 U	7.3 U	14 U	15 U	9.3 U	15 U	16 U	8.8 U	6.1 U
Bromoform	16 U	10 U	8.7 U	7.8 UJ	66 U	11 U	7.4 U	77 U	11 U	7.3 U	14 U	15 U	9.3 U	15 U	16 U	8.8 U	6.1 U
Bromomethane	16 U	10 U	8.7 U	7.8 UJ	66 U	11 U	7.4 U	77 U	11 U	7.3 U	14 U	15 U	9.3 U	15 U	16 U	8.8 U	6.1 UJ
Carbon disulfide	16 U	10 U	8.7 U	7.8 UJ	66 U	11 U	7.4 U	77 U	11 U	7.3 U	14 U	15 U	9.3 U	15 U	16 U	8.8 U	6.1 U
Carbon tetrachloride	16 U	10 U	8.7 U	7.8 UJ	66 U	11 U	7.4 U	77 U	11 U	7.3 U	14 U	15 U	9.3 U	15 U	16 U	8.8 U	6.1 U
Chlorobenzene	16 U	10 U	8.7 UJ	7.8 UJ	66 U	11 U	7.4 U	77 U	11 U	7.3 U	14 U	15 U	9.3 U	15 U	16 U	8.8 U	6.1 UJ
Chlorodibromomethane	16 U	10 U	8.7 U	7.8 UJ	66 U	11 U	7.4 U	77 U	11 U	7.3 U	14 U	15 U	9.3 U	15 U	16 U	8.8 U	6.1 U
Chloroethane	16 U	10 U	8.7 U	7.8 UJ	66 U	11 U	7.4 U	77 U	11 U	7.3 U	14 U	15 U	9.3 U	15 U	16 U	8.8 U	6.1 UJ
Chloroform	16 U	10 U	8.7 U	7.8 UJ	66 U	11 U	7.4 U	77 U	11 U	7.3 U	14 U	15 U	9.3 U	15 U	16 U	8.8 U	6.1 U
Chloromethane	16 U	10 U	8.7 U	7.8 UJ	66 U	11 U	7.4 U	77 U	11 U	7.3 U	14 U	15 U	9.3 U	15 U	16 U	8.8 U	6.1 UJ
cis-1,2-Dichloroethene	16 U	10 U	8.7 U	7.8 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	16 U	10 U	8.7 U	7.8 UJ	66 U	11 U	7.4 U	77 U	11 U	7.3 U	14 U	15 U	9.3 U	15 U	16 U	8.8 U	6.1 U
Dibromomethane	16 U	10 U	8.7 U	7.8 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	16 U	10 U	**8.7**	7.8 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	16 U	10 U	8.7 UJ	7.8 UJ	66 U	11 U	7.4 U	77 U	11 U	7.3 U	14 U	15 U	9.3 U	15 U	16 U	8.8 U	6.1 UJ
Iodomethane	31 U	20 UJ	17 U	16 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isobutyl alcohol	1,600 U	R	R	R	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	63 U	40 U	35 U	31 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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SEDIMENT ANALYTICAL DATA
ORGANIC COMPOUNDS SEDIMENT ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

	SD-17				SD-18			SD-19			SD-20			SD-21			
	(0 - 0.5') 6/20/95		(0.95 - 1.45') 6/20/95	(1.9 - 2.4') 6/20/95	(0 - 0.5') 6/20/95	(2.25 - 2.75') 6/20/95	(4.5 - 5') 6/20/95	(0 - 0.5') 6/20/95	(1.75 - 2.25') 6/20/95	(3.5 - 4') 6/20/95	(0 - 0.5') 6/20/95	(0.7 - 1.2') 6/20/95	(1.4 - 1.9') 6/20/95	(0 - 0.5') 6/20/95	(0.65 - 1.15') 6/20/95	(1.3 - 1.8') 6/20/95	(0 - 1.2') 6/19/95
Constituents (ug/kg)	**FS**	**DUP**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**
VOCs (Cont'd.)																	
Methyl methacrylate	16 U	10 U	8.7 U	7.8 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	540 U	170 U	74 U	44 UJ	890 U	11 U	12 U	**1,600**	28 U	19 U	25 U	61 U	44 U	13 U	21 U	9.3 U	6.0 U
Propionitrile	63 U	40 U	35 U	31 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyridine	650 U	530 U	720 U	1,300 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	16 U	10 U	8.7 UJ	7.8 UJ	66 U	11 U	7.4 U	77 U	11 U	7.3 U	14 U	15 U	9.3 U	15 U	16 U	8.8 U	6.1 UJ
Tetrachloroethene	16 U	10 U	8.7 UJ	7.8 UJ	66 U	11 U	7.4 U	77 U	11 U	7.3 U	14 U	15 U	9.3 U	15 U	16 U	8.8 U	6.1 UJ
Toluene	16 U	10 U	8.7 UJ	7.8 UJ	66 U	11 U	7.4 U	77 U	11 U	7.3 U	14 U	15 U	9.3 U	15 U	16 U	8.8 U	6.1 UJ
trans-1,2-Dichloroethene	16 U	10 U	8.7 U	7.8 UJ	66 U	11 U	7.4 U	77 U	11 U	7.3 U	14 U	15 U	9.3 U	15 U	16 U	8.8 U	6.1 U
trans-1,3-Dichloropropene	16 U	10 U	8.7 U	7.8 UJ	66 U	11 U	7.4 U	77 U	11 U	7.3 U	14 U	15 U	9.3 U	15 U	16 U	8.8 U	6.1 U
trans-1,4-Dichloro-2-butene	16 U	10 UJ	8.7 UJ	7.8 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	16 U	10 U	8.7 U	7.8 UJ	66 U	11 U	7.4 U	77 U	11 U	7.3 U	14 U	15 U	9.3 U	15 U	16 U	8.8 U	6.1 U
Trichlorofluoromethane	16 U	10 U	8.7 U	7.8 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl acetate	160 U	100 U	87 U	78 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	16 U	10 U	8.7 U	7.8 UJ	66 U	11 U	7.4 U	77 U	11 U	7.3 U	14 U	15 U	9.3 U	15 U	16 U	8.8 U	6.1 U
Xylenes, Total	16 U	10 U	**3.9 J**	7.8 U	66 U	11 U	7.4 U	77 U	11 U	7.3 U	14 U	15 U	9.3 U	15 U	16 U	8.8 U	6.1 UJ
SVOCs																	
1,2,4,5-Tetrachlorobenzene	650 U	530 U	720 U	1,300 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	650 U	530 U	720 U	1,300 U	870 U	3,600 U	490 U	5,100 U	3,500 U	970 U	4,500 U	2,000 U	1,500 U	9,800 U	2,600 U	720 U	200 U
1,2-Dichlorobenzene	16 U	10 U	8.7 U	7.8 UJ	66 U	11 U	7.4 U	77 U	11 U	7.3 U	14 U	15 U	9.3 U	15 U	16 U	8.8 U	6.1 UJ
1,3,5-Trinitrobenzene	R	R	R	R	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	16 U	10 U	8.7 U	7.8 UJ	66 U	11 U	7.4 U	77 U	11 U	7.3 U	14 U	15 U	9.3 U	15 U	16 U	8.8 U	6.1 U
1,3-Dinitrobenzene	650 U	530 U	720 U	1,300 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	16 U	10 U	8.7 U	7.8 UJ	66 U	11 U	7.4 U	77 U	11 U	7.3 U	14 U	15 U	9.3 U	15 U	16 U	8.8 U	6.1 UJ
1,4-Naphthoquinone	13,000 U	11,000 U	14,000 U	26,000 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	650 U	530 U	720 U	1,300 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(dichloropropane)	650 U	530 U	720 U	1,300 U	870 U	3,600 UJ	490 UJ	5,100 UJ	3,500 UJ	970 UJ	4,500 UJ	2,000 UJ	1,500 UJ	9,800 UJ	2,600 UJ	720 UJ	200 UJ
2,3,4,6-Tetrachlorophenol	3,100 U	2,600 U	3,500 U	6,200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	650 U	530 U	720 U	1,300 U	870 U	3,600 U	490 U	5,100 U	3,500 U	970 U	4,500 U	2,000 U	1,500 U	9,800 U	2,600 U	720 U	200 U
2,4,6-Trichlorophenol	650 U	530 U	720 U	1,300 U	870 U	3,600 U	490 U	5,100 U	3,500 U	970 U	4,500 U	2,000 U	1,500 U	9,800 U	2,600 U	720 U	200 U
2,4-Dichlorophenol	650 U	530 U	720 U	1,300 U	870 U	3,600 U	490 U	5,100 U	3,500 U	970 U	4,500 U	2,000 U	1,500 U	9,800 U	2,600 U	720 U	200 U
2,4-Dimethylphenol	**900**	**620**	**340 J**	**460 J**	**350 J**	3,600 U	490 U	5,100 U	3,500 U	**350 J**	4,500 U	2,000 U	1,500 U	9,800 U	2,600 U	720 U	200 U
2,4-Dinitrophenol	3,100 U	2,600 U	3,500 UJ	6,200 U	4,200 U	17,000 U	2,400 U	25,000 U	17,000 U	4,700 U	22,000 U	9,800 U	7,500 U	47,000 U	13,000 U	3,500 U	980 UJ
2,4-Dinitrotoluene	650 U	530 U	720 U	1,300 U	870 U	3,600 U	490 U	5,100 U	3,500 U	970 U	4,500 U	2,000 U	1,500 U	9,800 U	2,600 U	720 U	200 U
2,6-Dichlorophenol	650 U	530 U	720 U	1,300 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	650 U	530 U	720 U	1,300 U	870 U	3,600 U	490 U	5,100 U	3,500 U	970 U	4,500 U	2,000 U	1,500 U	9,800 U	2,600 U	720 U	200 U
2-Acetylaminofluorene	1,300 U	1,100 U	1,400 U	2,600 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	650 U	530 U	720 U	1,300 U	870 U	3,600 U	490 U	5,100 U	3,500 U	970 U	4,500 U	2,000 U	1,500 U	9,800 U	2,600 U	720 U	200 U
2-Chlorophenol	650 U	530 U	720 U	1,300 U	870 U	3,600 U	490 U	5,100 U	3,500 U	970 U	4,500 U	2,000 U	1,500 U	9,800 U	2,600 U	720 U	200 U
2-Methylnaphthalene	**6,600**	**4,700**	**2,300**	**2,500**	**2,100**	**6,400**	**640**	**8,300**	**5,400**	**1,900**	**2,800 J**	**3,000**	**590 J**	**6,600 J**	**4,600**	**1,000**	**33 J**
2-Methylphenol	**560 J**	**400**	**160 J**	**270 J**	**260 J**	3,600 U	**75 J**	5,100 U	3,500 U	970 U	4,500 U	2,000 U	1,500 U	9,800 U	2,600 U	720 U	200 U
2-Methylphenol	**560 J**	**400**	**160 J**	**270 J**	**260 J**	3,600 U	**75 J**	5,100 U	3,500 U	970 U	4,500 U	2,000 U	1,500 U	9,800 U	2,600 U	720 U	200 U
2-Naphthylamine	650 U	530 U	720 U	1,300 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	3,100 U	2,600 U	3,500 U	6,200 U	4,200 U	17,000 U	2,400 U	25,000 U	17,000 U	4,700 U	22,000 U	9,800 U	7,500 U	47,000 U	13,000 U	3,500 U	980 U
2-Nitrophenol	650 U	530 U	720 U	1,300 U	870 U	3,600 U	490 U	5,100 U	3,500 U	970 U	4,500 U	2,000 U	1,500 U	9,800 U	2,600 U	720 U	200 U

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TABLE A-8
SEDIMENT ANALYTICAL DATA
ORGANIC COMPOUNDS SEDIMENT ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

	SD-17				SD-18			SD-19			SD-20			SD-21			
	(0 - 0.5') 6/20/95		(0.95 - 1.45') 6/20/95	(1.9 - 2.4') 6/20/95	(0 - 0.5') 6/20/95	(2.25 - 2.75') 6/20/95	(4.5 - 5') 6/20/95	(0 - 0.5') 6/20/95	(1.75 - 2.25') 6/20/95	(3.5 - 4') 6/20/95	(0 - 0.5') 6/20/95	(0.7 - 1.2') 6/20/95	(1.4 - 1.9') 6/20/95	(0 - 0.5') 6/20/95	(0.65 - 1.15') 6/20/95	(1.3 - 1.8') 6/20/95	(0 - 1.2') 6/19/95
Constituents (ug/kg)	**FS**	**DUP**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**
SVOCs (Cont'd.)																	
2-Picoline	1,300 U	1,100 U	1,400 U	2,600 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	1,300 U	1,100 U	1,400 U	2,600 U	1,700 U	7,200 U	980 U	10,000 U	6,900 U	1,900 U	8,900 U	4,000 U	3,100 U	20,000 U	5,300 U	1,400 U	400 U
3,3'-Dimethylbenzidine	3,100 U	2,600 U	3,500 U	6,200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	6,500 U	5,300 U	7,200 U	13,000 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	**550**	**370**	**170 J**	**300 J**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	**550**	**370**	**170 J**	**300 J**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	3,100 U	2,600 U	3,500 U	6,200 U	4,200 U	17,000 U	2,400 U	25,000 U	17,000 U	4,700 U	22,000 U	9,800 U	7,500 U	47,000 U	13,000 U	3,500 U	980 U
4,6-Dinitro-2-methylphenol	3,100 U	2,600 U	3,500 U	6,200 U	4,200 U	17,000 U	2,400 U	25,000 U	17,000 U	4,700 U	22,000 U	9,800 U	7,500 U	47,000 U	13,000 U	3,500 U	980 U
4-Aminobiphenyl	3,100 U	2,600 U	3,500 U	6,200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	650 U	530 U	720 U	1,300 U	870 U	3,600 U	490 U	5,100 U	3,500 U	970 U	4,500 U	2,000 U	1,500 U	9,800 U	2,600 U	720 U	200 U
4-Chloro-3-methylphenol	650 U	530 U	720 U	1,300 U	870 U	3,600 U	490 U	5,100 U	3,500 U	970 U	4,500 U	2,000 U	1,500 U	9,800 U	2,600 U	720 U	200 U
4-Chloroaniline	650 U	530 U	720 U	1,300 U	870 U	3,600 U	490 U	5,100 U	3,500 U	970 U	4,500 U	2,000 U	1,500 U	9,800 U	2,600 U	720 U	200 U
4-Chlorophenyl phenyl ether	650 U	530 U	720 U	1,300 U	870 U	3,600 U	490 U	5,100 U	3,500 U	970 U	4,500 U	2,000 U	1,500 U	9,800 U	2,600 U	720 U	200 U
4-Methylphenol	**550**	**370**	**170 J**	**300 J**	870 U	3,600 U	490 U	5,100 U	3,500 U	970 U	4,500 U	2,000 U	1,500 U	9,800 U	2,600 U	720 U	200 U
4-Nitroaniline	3,100 UJ	2,600 U	3,500 U	6,200 UJ	4,200 U	17,000 U	2,400 U	25,000 U	17,000 U	4,700 U	22,000 U	9,800 U	7,500 U	47,000 U	13,000 U	3,500 U	980 UJ
4-Nitrophenol	3,100 U	2,600 U	3,500 U	6,200 U	4,200 U	17,000 U	2,400 U	25,000 U	17,000 U	4,700 U	22,000 U	9,800 U	7,500 U	47,000 U	13,000 U	3,500 U	980 UJ
4-Nitroquinoline1-oxide	R	5,300 U	7,200 UJ	R	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	650 U	530 U	720 U	1,300 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	6,500 U	5,300 U	7,200 U	13,000 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	**400 J**	**250 J**	**150 J**	**220 J**	870 U	3,600 U	490 U	5,100 U	3,500 U	970 U	4,500 U	2,000 U	1,500 U	9,800 U	2,600 U	720 U	200 U
Acenaphthylene	650 U	530 U	720 U	1,300 U	870 U	3,600 U	490 U	5,100 U	3,500 U	970 U	4,500 U	2,000 U	1,500 U	9,800 U	2,600 U	720 U	200 U
Acetophenone	**330 J**	530 U	720 U	1,300 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha,alpha-Dimethyl phenethylamine	6,300 UJ	5,200 UJ	7,000 UJ	12,000 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	650 U	530 U	720 U	1,300 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	**620 J**	**450 J**	**250 J**	**220 J**	**190 J**	**690 J**	**92 J**	**750 J**	**470 J**	**150 J**	4,500 U	**340 J**	1,500 U	9,800 U	**410 J**	**120 J**	200 U
Benzo(a)anthracene	**330 J**	**260 J**	**180 J**	**170 J**	870 U	3,600 U	**51 J**	5,100 U	3,500 U	970 U	4,500 U	2,000 U	1,500 U	9,800 U	2,600 U	**110 J**	**64 J**
Benzo(a)pyrene	**180 J**	**120 J**	**100 J**	1,300 U	870 U	3,600 U	490 U	5,100 U	3,500 U	970 U	4,500 U	2,000 U	1,500 U	9,800 U	2,600 U	720 U	**55 J**
Benzo(b)fluoranthene	**350 J**	**250 J**	**160 J**	1,300 U	870 U	**410 J**	490 U	5,100 U	3,500 U	970 U	4,500 U	2,000 U	1,500 U	9,800 U	2,600 U	720 U	**70 J**
Benzo(g,h,i)perylene	**140 J**	**93 J**	720 U	1,300 U	870 U	3,600 U	490 U	5,100 U	3,500 U	970 U	4,500 U	2,000 U	1,500 U	9,800 U	2,600 U	720 U	200 U
Benzo(k)fluoranthene	650 U	530 U	720 U	1,300 U	870 U	3,600 U	490 U	5,100 U	3,500 U	970 U	4,500 U	2,000 U	1,500 U	9,800 U	2,600 U	720 U	200 U
Benzyl alcohol	650 U	530 U	720 U	1,300 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	650 U	530 U	720 U	1,300 U	870 U	3,600 U	490 U	5,100 U	3,500 U	970 U	4,500 U	2,000 U	1,500 U	9,800 U	2,600 U	720 U	200 U
bis(2-Chloroethyl)ether	650 U	530 U	720 U	1,300 U	870 U	3,600 U	490 U	5,100 U	3,500 U	970 U	4,500 U	2,000 U	1,500 U	9,800 U	2,600 U	720 U	200 U
bis(2-Ethylhexyl)phthalate	**120 J**	530 U	720 U	1,300 U	870 U	**2,600 J**	**270 J**	5,100 U	**3,600**	970 U	4,500 U	**1,200 J**	1,500 U	9,800 U	2,600 U	**130 J**	**21 J**
Butyl benzyl phthalate	650 U	530 U	720 U	**340 J**	870 U	3,600 U	490 U	5,100 U	3,500 U	970 U	4,500 U	2,000 U	1,500 U	9,800 U	2,600 U	720 U	200 UJ
Carbazole	NA	NA	NA	NA	870 U	3,600 U	490 U	5,100 U	3,500 U	970 U	4,500 U	2,000 U	1,500 U	9,800 U	2,600 U	720 U	200 U
Chrysene	**550 J**	**400**	**260 J**	**260 J**	870 U	3,600 U	**82 J**	5,100 U	3,500 U	**180 J**	4,500 U	2,000 U	1,500 U	9,800 U	**520 J**	**160 J**	**74 J**
Di-n-butyl phthalate	**460 J**	**6,600**	720 U	**3,900**	**190 J**	**8,700**	**5,100**	5,100 U	3,500 U	**270 J**	**3,400 J**	2,000 U	**1,300 J**	9,800 U	**750 J**	**340 J**	**140 J**
Di-n-octyl phthalate	650 U	530 U	720 U	1,300 U	870 U	**3,500 J**	**320 J**	5,100 U	**5,000**	970 U	4,500 U	**1,400 J**	1,500 U	9,800 U	2,600 U	**87 J**	200 U
Diallate	650 U	530 U	720 U	1,300 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	650 U	530 U	720 U	1,300 U	870 U	3,600 U	490 U	5,100 U	3,500 U	970 U	4,500 U	2,000 U	1,500 U	9,800 U	2,600 U	720 U	200 U
Dibenzofuran	**1,600**	**1,100**	**540 J**	**410 J**	**500 J**	**1,400 J**	**130 J**	**1,700 J**	**1,000 J**	**350 J**	**630 J**	**740 J**	1,500 U	**1,500 J**	**1,200 J**	**330 J**	200 U
Diethyl phthalate	650 U	530 U	720 U	1,300 U	870 U	3,600 U	**570**	5,100 U	3,500 U	970 U	4,500 U	2,000 U	1,500 U	9,800 U	2,600 U	720 U	200 U
Dimethyl phthalate	650 U	530 U	720 U	1,300 U	870 U	3,600 U	490 U	5,100 U	3,500 U	970 U	4,500 U	2,000 U	1,500 U	9,800 U	2,600 U	720 U	200 U

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TABLE A-8
SEDIMENT ANALYTICAL DATA
ORGANIC COMPOUNDS SEDIMENT ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

	SD-17				SD-18			SD-19			SD-20			SD-21			
	(0 - 0.5') 6/20/95		(0.95 - 1.45') 6/20/95	(1.9 - 2.4') 6/20/95	(0 - 0.5') 6/20/95	(2.25 - 2.75') 6/20/95	(4.5 - 5') 6/20/95	(0 - 0.5') 6/20/95	(1.75 - 2.25') 6/20/95	(3.5 - 4') 6/20/95	(0 - 0.5') 6/20/95	(0.7 - 1.2') 6/20/95	(1.4 - 1.9') 6/20/95	(0 - 0.5') 6/20/95	(0.65 - 1.15') 6/20/95	(1.3 - 1.8') 6/20/95	(0 - 1.2') 6/19/95
Constituents (ug/kg)	**FS**	**DUP**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**
SVOCs (Cont'd.)																	
Diphenylamine	650 U	530 U	720 U	1,300 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl methacrylate	16 U	10 U	8.7 U	7.8 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl methanesulfonate	650 U	530 U	720 U	1,300 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	**1,100**	**800**	**400 J**	**420 J**	**290 J**	**1,100 J**	**110 J**	**1,100 J**	**900 J**	**210 J**	4,500 U	**590 J**	1,500 U	9,800 U	**760 J**	**240 J**	**120 J**
Fluorene	**1,300**	**930**	**530 J**	**500 J**	**380 J**	**1,500 J**	**160 J**	**1,400 J**	**1,100 J**	**320 J**	4,500 U	**700 J**	1,500 U	9,800 U	**890 J**	**250 J**	200 U
Hexachlorobenzene	650 U	530 U	720 U	1,300 U	870 U	3,600 U	490 U	5,100 U	3,500 U	970 U	4,500 U	2,000 U	1,500 U	9,800 U	2,600 U	720 U	200 U
Hexachlorobutadiene	650 U	530 U	720 U	1,300 U	870 U	3,600 U	490 U	5,100 U	3,500 U	970 U	4,500 U	2,000 U	1,500 U	9,800 U	2,600 U	720 U	200 U
Hexachlorocyclopentadiene	650 U	530 U	720 U	1,300 U	870 U	3,600 U	490 U	5,100 U	3,500 U	970 U	4,500 U	2,000 U	1,500 U	9,800 U	2,600 U	720 U	200 U
Hexachloroethane	650 U	530 U	720 U	1,300 U	870 U	3,600 U	490 U	5,100 U	3,500 U	970 U	4,500 U	2,000 U	1,500 U	9,800 U	2,600 U	720 U	200 U
Hexachloropropene	6,500 U	5,300 U	7,200 U	13,000 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	650 U	530 U	720 U	1,300 U	870 U	3,600 U	490 U	5,100 U	3,500 U	970 U	4,500 U	2,000 U	1,500 U	9,800 U	2,600 U	720 U	200 U
Isophorone	**620 J**	**490**	**770**	1,300 U	**400 J**	3,600 U	490 U	5,100 U	3,500 U	970 U	4,500 U	2,000 U	1,500 U	9,800 U	2,600 U	**400 J**	200 U
Isosafrole, Total	650 U	530 U	720 U	1,300 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	6,500 U	5,300 U	7,200 U	13,000 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl methanesulfonate	650 U	530 U	720 U	1,300 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	650 U	530 U	720 U	1,300 U	870 U	3,600 U	490 U	5,100 U	3,500 U	970 U	4,500 U	2,000 U	1,500 U	9,800 U	2,600 U	720 U	200 U
N-Nitrosodi-n-butylamine	650 U	530 U	720 U	1,300 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiethylamine	650 U	530 U	720 U	1,300 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	650 U	530 U	720 U	1,300 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	650 U	530 U	720 U	1,300 U	870 U	3,600 U	490 U	5,100 U	3,500 U	970 U	4,500 U	2,000 U	1,500 U	9,800 U	2,600 U	720 U	200 U
N-Nitrosomethylethylamine	650 U	530 U	720 U	1,300 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	650 U	530 U	720 U	1,300 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	650 U	530 U	720 U	1,300 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	650 U	530 U	720 U	1,300 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	**5,900**	**4,400**	**2,000**	**2,100**	**2,000**	**6,100**	**560**	**8,100**	**4,100**	**1,400**	**2,400 J**	**2,200**	**420 J**	**6,600 J**	**3,700**	**810**	200 U
Nitrobenzene	650 U	530 U	720 U	1,300 U	870 U	3,600 U	490 U	5,100 U	3,500 U	970 U	4,500 U	2,000 U	1,500 U	9,800 U	2,600 U	720 U	200 U
o-Toluidine	650 U	530 U	720 U	1,300 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Chlorobenzilate	650 U	530 U	720 U	1,300 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	1,300 U	1,100 U	1,400 U	2,600 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Phenylene diamine	3,100 UJ	2,600 U	3,500 U	6,200 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	650 U	530 U	720 U	1,300 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	3,100 U	2,600 U	3,500 U	6,200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	3,100 U	2,600 U	3,500 U	6,200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	3,100 U	2,600 U	3,500 UJ	6,200 U	4,200 U	17,000 U	2,400 U	25,000 U	17,000 U	4,700 U	22,000 U	9,800 U	7,500 U	47,000 U	13,000 U	3,500 U	980 U
Phenacetin	3,100 U	2,600 U	3,500 U	6,200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	**4,400**	**3,200**	**1,700**	**1,600**	**1,300**	**4,300**	**460 J**	**4,000 J**	**3,100 J**	**960 J**	**1,500 J**	**1,700 J**	**510 J**	**3,900 J**	**2,200 J**	**610 J**	**49 J**
Phenol	**440 J**	**290**	**98 J**	1,300 U	**200 J**	3,600 U	490 U	5,100 U	**510 J**	970 U	4,500 U	2,000 U	1,500 U	9,800 U	2,600 U	720 U	200 U
Pronamide	1,300 U	1,100 U	1,400 U	2,600 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	**560 J**	**390**	**250 J**	**250 J**	**200 J**	**1,000 J**	**100 J**	**880 J**	**720 J**	**260 J**	4,500 U	**480 J**	1,500 U	9,800 U	**600 J**	**170 J**	**110 J**
Safrole, Total	650 U	530 U	720 U	1,300 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetraethyl Dithiopyrophosphate	3,100 U	2,600 U	3,500 U	6,200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-8
SEDIMENT ANALYTICAL DATA
ORGANIC COMPOUNDS SEDIMENT ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

	SD-17				SD-18			SD-19			SD-20			SD-21			
	(0 - 0.5') 6/20/95		(0.95 - 1.45') 6/20/95	(1.9 - 2.4') 6/20/95	(0 - 0.5') 6/20/95	(2.25 - 2.75') 6/20/95	(4.5 - 5') 6/20/95	(0 - 0.5') 6/20/95	(1.75 - 2.25') 6/20/95	(3.5 - 4') 6/20/95	(0 - 0.5') 6/20/95	(0.7 - 1.2') 6/20/95	(1.4 - 1.9') 6/20/95	(0 - 0.5') 6/20/95	(0.65 - 1.15') 6/20/95	(1.3 - 1.8') 6/20/95	(0 - 1.2') 6/19/95
Constituents (ug/kg)	**FS**	**DUP**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**
PCBs																	
Aroclor-1016					350 U	360 U	250 U	510 U	350 U	240 U	450 U	500 U	310 U	490 U	530 U	290 U	200 U
Aroclor-1221					350 U	360 U	250 U	510 U	350 U	240 U	450 U	500 U	310 U	490 U	530 U	290 U	200 U
Aroclor-1232					350 U	360 U	250 U	510 U	350 U	240 U	450 U	500 U	310 U	490 U	530 U	290 U	200 U
Aroclor-1242					350 U	360 U	250 U	510 U	350 U	240 U	450 U	500 U	310 U	490 U	530 U	290 U	200 U
Aroclor-1248					350 U	360 U	250 U	510 U	**380**	240 U	450 U	500 U	**450**	490 U	530 U	290 U	200 U
Aroclor-1254					350 U	360 U	250 U	510 U	**760**	**530**	450 U	500 U	**480**	490 U	530 U	290 U	200 U
Aroclor-1260					350 U	360 U	250 U	510 U	350 U	240 U	450 U	500 U	310 U	490 U	530 U	290 U	200 U
Total Aroclors					ND	ND	ND	ND	**1,140**	**530**	ND	ND	**930**	ND	ND	ND	ND
Pesticide/Herbicide																	
2,4,5-T	39 U	40 U	44 UJ	39 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP(Silvex)	39 U	40 U	44 UJ	39 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	160 U	160 U	170 UJ	160 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDD	4.2 U*	5.4 U*	12 U*	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	4.2 UJ*	5.4 UJ*	12 UJ*	10 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	4.2 U*	5.4 U*	12 U*	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	2.1 UJ*	2.7 UJ*	5.8 UJ*	5.1 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-BHC	2.1 U*	2.7 U*	5.8 U*	5.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	2.1 UJ*	2.7 UJ*	5.8 UJ*	5.1 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	2.1 U*	2.7 UJ*	5.8 UJ*	5.1 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	2.1 U*	2.7 UJ*	5.8 UJ*	5.1 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	4.2 U*	5.4 U*	12 U*	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	16 UJ	16 UJ	17 UJ	16 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	2.6 U	2.7 U*	5.8 U*	5.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	4.2 UJ*	5.4 UJ*	12 UJ*	10 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	4.2 UJ*	5.4 UJ*	12 UJ*	10 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	4.2 UJ*	5.4 UJ*	12 UJ*	10 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	4.2 U*	5.4 U*	12 U*	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-BHC (Lindane)	2.1 U*	2.7 U*	5.8 U*	5.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	2.1 UJ*	2.7 UJ*	5.8 UJ*	5.1 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor epoxide	2.1 UJ*	2.7 UJ*	5.8 UJ*	5.1 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	2.1 U*	2.7 U*	5.8 U*	5.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	13 U	13 U	14 U	12 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	130 U	130 U	140 U	120 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	39 U	40 U	58 U*	51 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	130 U	140 U	290 U*	260 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dioxin/Furan																	
2,3,7,8-TCDD	0.0018 U	**0.0019 J**	**0.0065 J**	**0.014**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HxCDDs, Total	**0.045**	**0.036**	**0.23**	**0.53**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HxCDFs, Total	**0.038**	**0.02**	**0.069**	**0.43**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PeCDDs, Total	0.0052 U	0.0047 U	**0.011**	**0.095**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PeCDFs, Total	**0.14**	**0.068**	**0.22**	**0.47**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCDDs, Total	**0.016**	**0.019**	**0.069**	**0.13**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCDFs, Total	**0.57**	**0.44**	**0.68**	**1.0**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD TEQ	**0.02**	**0.017**	**0.04**	**0.094**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-8
SEDIMENT ANALYTICAL DATA
ORGANIC COMPOUNDS SEDIMENT ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

	SD-22		SD-23			SD-24		SD-25			SD-26			SD-27			
	(1.2 - 2.4') 6/19/95	(2.4 - 3.6') 6/19/95	(0 - 1.2') 6/19/95	(1.2 - 2.4') 6/19/95	(2.4 - 3.6') 6/19/95	(0 - 1.5') 6/19/95	(1.5 - 3') 6/19/95	(0 - 1.1') 6/19/95	(1.1 - 2.2') 6/19/95	(2.2 - 3.3') 6/19/95	(0 - 1.2') 6/19/95	(1.2 - 2.4') 6/19/95	(2.4 - 3.6') 6/19/95	(0 - 1.3') 6/19/95	(1.3 - 2.6') 6/19/95	(2.6 - 3.9') 6/19/95	(0 - 1.2') 6/19/95
Constituents (ug/kg)	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**
VOCs																	
1,1,1,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	6.7 U	6.7 U	760 U	7.4 U	6.9 U	7.9 U	7.8 U	7.0 U	6.6 U	7.0 U	7.8 U	7.3 U	6.7 U	980 U	7.1 U	6.8 U	2,300 U
1,1,2,2-Tetrachloroethane	6.7 UJ	6.7 U	760 U	7.4 U	6.9 U	7.9 U	7.8 U	7.0 U	6.6 U	7.0 U	7.8 U	7.3 U	6.7 U	980 U	7.1 U	6.8 U	2,300 U
1,1,2-Trichloroethane	6.7 U	6.7 U	760 U	7.4 U	6.9 U	7.9 U	7.8 U	7.0 U	6.6 U	7.0 U	7.8 U	7.3 U	6.7 U	980 U	7.1 U	6.8 U	2,300 U
1,1-Dichloroethane	6.7 U	6.7 U	760 U	7.4 U	6.9 U	7.9 U	7.8 U	7.0 U	6.6 U	7.0 U	7.8 U	7.3 U	6.7 U	980 U	7.1 U	6.8 U	2,300 U
1,1-Dichloroethene	6.7 U	6.7 U	760 U	7.4 U	6.9 U	7.9 U	7.8 U	7.0 U	6.6 U	7.0 U	7.8 U	7.3 U	6.7 U	980 U	7.1 U	6.8 U	2,300 U
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	6.7 UJ	6.7 U	760 U	7.4 U	6.9 U	7.9 U	7.8 U	7.0 U	6.6 U	7.0 U	7.8 U	7.3 U	6.7 U	980 U	7.1 U	6.8 U	2,300 U
1,2-Dichloroethane	6.7 U	6.7 U	760 U	7.4 U	6.9 U	7.9 U	7.8 U	7.0 U	6.6 U	7.0 U	7.8 U	7.3 U	6.7 U	980 U	7.1 U	6.8 U	2,300 U
1,2-Dichloroethene, Total	6.7 U	6.7 U	760 U	7.4 U	6.9 U	7.9 U	7.8 U	7.0 U	6.6 U	7.0 U	7.8 U	7.3 U	6.7 U	980 U	7.1 U	6.8 U	2,300 U
1,2-Dichloropropane	6.7 U	6.7 U	760 U	7.4 U	6.9 U	7.9 U	7.8 U	7.0 U	6.6 U	7.0 U	7.8 U	7.3 U	6.7 U	980 U	7.1 U	6.8 U	2,300 U
1,3-Dichlorobenzene	6.7 UJ	6.7 U	760 U	7.4 U	6.9 U	7.9 U	7.8 U	7.0 U	6.6 U	7.0 U	7.8 U	7.3 U	6.7 U	980 U	7.1 U	6.8 U	2,300 U
1,4-Dichlorobenzene	6.7 UJ	6.7 U	760 U	7.4 U	6.9 U	7.9 U	7.8 U	7.0 U	6.6 U	7.0 U	7.8 U	7.3 U	6.7 U	980 U	7.1 U	6.8 U	2,300 U
1,4-Dioxane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	5.2 UJ	6.4 U	7,600 U	**5.5 J**	69 U	**19 J**	**9.9 J**	3.8 U	4.5 U	5.9 U	**27 J**	**11 J**	**5.9 J**	9,800 U	**5.1 J**	68 U	23,000 U
2-Chloro-1,3-butadiene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	67 UJ	67 U	7,600 U	74 U	69 U	79 U	78 U	70 U	66 U	70 U	78 U	73 U	67 U	9,800 U	71 U	68 U	23,000 U
3-Chloro-1-propene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	67 UJ	67 U	7,600 U	74 U	69 U	79 U	78 U	70 U	66 U	70 U	78 U	73 U	67 U	9,800 U	71 U	68 U	23,000 U
Acetone	37 UJ	33 UJ	7,600 U	21 U	**12 J**	**120 JB**	**43 J**	18 UJ	24 UJ	34 UJ	**150 J**	**51 J**	25 U	9,800 U	29 U	**18 J**	23,000 U
Acetonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	6.7 U	6.7 U	760 U	7.4 U	6.9 U	7.9 U	7.8 U	7.0 U	6.6 U	7.0 U	7.8 U	7.3 U	6.7 U	980 U	7.1 U	6.8 U	2,300 U
Bromodichloromethane	6.7 U	6.7 U	760 U	7.4 U	6.9 U	7.9 U	7.8 U	7.0 U	6.6 U	7.0 U	7.8 U	7.3 U	6.7 U	980 U	7.1 U	6.8 U	2,300 U
Bromoform	6.7 U	6.7 U	760 U	7.4 U	6.9 U	7.9 U	7.8 U	7.0 U	6.6 U	7.0 U	7.8 U	7.3 U	6.7 U	980 U	7.1 U	6.8 U	2,300 U
Bromomethane	6.7 UJ	6.7 UJ	760 UJ	7.4 U	6.9 U	7.9 U	7.8 U	7.0 UJ	6.6 UJ	7.0 UJ	7.8 U	7.3 U	6.7 U	980 UJ	7.1 U	6.8 U	2,300 U
Carbon disulfide	6.7 U	6.7 U	760 U	7.4 U	6.9 U	7.9 U	7.8 U	7.0 U	6.6 U	**3.0 J**	7.8 U	7.3 U	6.7 U	980 U	7.1 U	6.8 U	2,300 U
Carbon tetrachloride	6.7 U	6.7 U	760 U	7.4 U	6.9 U	7.9 U	7.8 U	7.0 U	6.6 U	7.0 U	7.8 U	7.3 U	6.7 U	980 U	7.1 U	6.8 U	2,300 U
Chlorobenzene	6.7 UJ	6.7 U	760 U	7.4 U	6.9 U	7.9 U	7.8 U	7.0 U	6.6 U	7.0 U	7.8 U	7.3 U	6.7 U	980 U	7.1 U	6.8 U	2,300 U
Chlorodibromomethane	6.7 U	6.7 U	760 U	7.4 U	6.9 U	7.9 U	7.8 U	7.0 U	6.6 U	7.0 U	7.8 U	7.3 U	6.7 U	980 U	7.1 U	6.8 U	2,300 U
Chloroethane	6.7 UJ	6.7 UJ	760 UJ	7.4 UJ	6.9 U	7.9 UJ	7.8 U	7.0 UJ	6.6 UJ	7.0 UJ	7.8 U	7.3 U	6.7 UJ	980 UJ	7.1 UJ	6.8 U	2,300 UJ
Chloroform	6.7 U	6.7 U	760 U	7.4 U	6.9 U	7.9 U	7.8 U	7.0 U	6.6 U	7.0 U	7.8 U	7.3 U	6.7 U	980 U	7.1 U	6.8 U	2,300 U
Chloromethane	6.7 UJ	6.7 UJ	760 UJ	7.4 U	6.9 U	7.9 U	7.8 U	7.0 UJ	6.6 UJ	7.0 UJ	7.8 U	7.3 U	6.7 U	980 UJ	7.1 U	6.8 U	2,300 U
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	6.7 U	6.7 U	760 U	7.4 U	6.9 U	7.9 U	7.8 U	7.0 U	6.6 U	7.0 U	7.8 U	7.3 U	6.7 U	980 U	7.1 U	6.8 U	2,300 U
Dibromomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	6.7 UJ	6.7 U	760 U	7.4 U	6.9 U	7.9 U	7.8 U	7.0 U	6.6 U	7.0 U	7.8 U	7.3 U	6.7 U	980 U	7.1 U	6.8 U	2,300 U
Iodomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isobutyl alcohol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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SEDIMENT ANALYTICAL DATA
ORGANIC COMPOUNDS SEDIMENT ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

	SD-22		SD-23			SD-24		SD-25			SD-26			SD-27			
	(1.2 - 2.4') 6/19/95	(2.4 - 3.6') 6/19/95	(0 - 1.2') 6/19/95	(1.2 - 2.4') 6/19/95	(2.4 - 3.6') 6/19/95	(0 - 1.5') 6/19/95	(1.5 - 3') 6/19/95	(0 - 1.1') 6/19/95	(1.1 - 2.2') 6/19/95	(2.2 - 3.3') 6/19/95	(0 - 1.2') 6/19/95	(1.2 - 2.4') 6/19/95	(2.4 - 3.6') 6/19/95	(0 - 1.3') 6/19/95	(1.3 - 2.6') 6/19/95	(2.6 - 3.9') 6/19/95	(0 - 1.2') 6/19/95
Constituents (ug/kg)	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS
VOCs (Cont'd.)																	
Methyl methacrylate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	12 U	11 U	8,000 U	96 U	40 U	7.9 U	8.4 U	7.0 U	15 U	7.0 U	7.8 U	7.6 U	3.6 U	18,000 U	52 U	13 U	**66,000**
Propionitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyridine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	6.7 UJ	6.7 U	760 U	7.4 U	6.9 U	7.9 U	7.8 U	7.0 U	6.6 U	7.0 U	7.8 U	7.3 U	6.7 U	980 U	7.1 U	6.8 U	2,300 U
Tetrachloroethene	6.7 UJ	6.7 U	760 U	7.4 U	6.9 U	7.9 U	7.8 U	7.0 U	6.6 U	7.0 U	7.8 U	7.3 U	6.7 U	980 U	7.1 U	6.8 U	2,300 U
Toluene	7.1 UJ	6.7 U	**390 J**	7.4 U	**5.0 J**	7.9 U	**18**	7.0 U	6.6 U	7.0 U	7.8 U	7.3 U	6.7 U	980 U	**3.5 J**	6.8 U	2,300 U
trans-1,2-Dichloroethene	6.7 U	6.7 U	760 U	7.4 U	6.9 U	7.9 U	7.8 U	7.0 U	6.6 U	7.0 U	7.8 U	7.3 U	6.7 U	980 U	7.1 U	6.8 U	2,300 U
trans-1,3-Dichloropropene	6.7 U	6.7 U	760 U	7.4 U	6.9 U	7.9 U	7.8 U	7.0 U	6.6 U	7.0 U	7.8 U	7.3 U	6.7 U	980 U	7.1 U	6.8 U	2,300 U
trans-1,4-Dichloro-2-butene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	6.7 U	6.7 U	760 U	7.4 U	6.9 U	7.9 U	7.8 U	7.0 U	6.6 U	7.0 U	7.8 U	7.3 U	6.7 U	980 U	7.1 U	6.8 U	2,300 U
Trichlorofluoromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	6.7 U	6.7 U	760 U	7.4 U	6.9 U	7.9 U	7.8 U	7.0 U	6.6 U	7.0 U	7.8 U	7.3 U	6.7 U	980 U	7.1 U	6.8 U	2,300 U
Xylenes, Total	6.7 UJ	6.7 U	**310 J**	7.4 U	6.9 U	7.9 U	7.8 U	7.0 U	6.6 U	7.0 U	7.8 U	7.3 U	6.7 U	**260 J**	7.1 U	6.8 U	2,300 U
SVOCs																	
1,2,4,5-Tetrachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	220 U	220 U	200 U	240 U	230 U	260 U	260 U	230 U	220 U	230 U	260 U	240 U	220 U	260 U	230 U	220 U	300 U
1,2-Dichlorobenzene	6.7 UJ	6.7 U	760 U	7.4 U	6.9 U	7.9 U	7.8 U	7.0 U	6.6 U	7.0 U	7.8 U	7.3 U	6.7 U	980 U	7.1 U	6.8 U	2,300 U
1,3,5-Trinitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	6.7 UJ	6.7 U	760 U	7.4 U	6.9 U	7.9 U	7.8 U	7.0 U	6.6 U	7.0 U	7.8 U	7.3 U	6.7 U	980 U	7.1 U	6.8 U	2,300 U
1,3-Dinitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	6.7 UJ	6.7 U	760 U	7.4 U	6.9 U	7.9 U	7.8 U	7.0 U	6.6 U	7.0 U	7.8 U	7.3 U	6.7 U	980 U	7.1 U	6.8 U	2,300 U
1,4-Naphthoquinone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(dichloropropane)	220 U	220 UJ	200 U	240 U	230 U	260 U	260 U	230 UJ	220 UJ	230 UJ	260 U	240 U	220 U	260 U	230 U	220 U	300 U
2,3,4,6-Tetrachlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	220 U	220 U	200 U	240 U	230 U	260 U	260 U	230 U	220 U	230 U	260 U	240 U	220 U	260 U	230 U	220 U	300 U
2,4,6-Trichlorophenol	220 U	220 U	200 U	240 U	230 U	260 U	260 U	230 U	220 U	230 U	260 U	240 U	220 U	260 U	230 U	220 U	300 U
2,4-Dichlorophenol	220 U	220 U	200 U	240 U	230 U	260 U	260 U	230 U	220 U	230 U	260 U	240 U	220 U	260 U	230 U	220 U	300 U
2,4-Dimethylphenol	220 U	220 U	200 U	240 U	230 U	260 U	260 U	230 U	220 U	230 U	260 U	240 U	220 U	260 U	230 U	220 U	300 U
2,4-Dinitrophenol	1,100 UJ	1,100 UJ	970 U	1,200 U	1,100 U	1,300 U	1,200 U	1,100 UJ	1,100 UJ	1,100 UJ	1,200 U	1,200 U	1,100 U	1,300 U	1,100 U	1,100 U	1,500 U
2,4-Dinitrotoluene	220 UJ	220 UJ	200 U	240 U	230 U	260 U	260 U	230 U	220 UJ	230 U	260 U	240 U	220 U	260 U	230 U	220 U	300 U
2,6-Dichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	220 UJ	220 UJ	200 U	240 U	230 U	260 U	260 U	230 U	220 UJ	230 U	260 U	240 U	220 U	260 U	230 U	220 U	300 U
2-Acetylaminofluorene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	220 U	220 U	200 U	240 U	230 U	260 U	260 U	230 U	220 U	230 U	260 U	240 U	220 U	260 U	230 U	220 U	300 U
2-Chlorophenol	220 U	220 U	200 U	240 U	230 U	260 U	260 U	230 U	220 U	230 U	260 U	240 U	220 U	260 U	230 U	220 U	300 U
2-Methylnaphthalene	220 U	220 U	200 U	240 U	230 U	260 U	260 U	230 U	220 U	230 U	260 U	240 U	220 U	260 U	230 U	220 U	**44 J**
2-Methylphenol	220 U	220 U	200 U	240 U	230 U	260 U	260 U	230 U	220 U	230 U	260 U	240 U	220 U	260 U	230 U	220 U	300 U
2-Methylphenol	220 U	220 U	200 U	240 U	230 U	260 U	260 U	230 U	220 U	230 U	260 U	240 U	220 U	260 U	230 U	220 U	300 U
2-Naphthylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	1,100 U	1,100 U	970 U	1,200 U	1,100 U	1,300 U	1,200 U	1,100 U	1,100 U	1,100 U	1,200 U	1,200 U	1,100 U	1,300 U	1,100 U	1,100 U	1,500 U
2-Nitrophenol	220 U	220 U	200 U	240 U	230 U	260 U	260 U	230 U	220 U	230 U	260 U	240 U	220 U	260 U	230 U	220 U	300 U

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TABLE A-8
SEDIMENT ANALYTICAL DATA
ORGANIC COMPOUNDS SEDIMENT ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

	SD-22		SD-23			SD-24		SD-25			SD-26			SD-27			
	(1.2 - 2.4') 6/19/95	(2.4 - 3.6') 6/19/95	(0 - 1.2') 6/19/95	(1.2 - 2.4') 6/19/95	(2.4 - 3.6') 6/19/95	(0 - 1.5') 6/19/95	(1.5 - 3') 6/19/95	(0 - 1.1') 6/19/95	(1.1 - 2.2') 6/19/95	(2.2 - 3.3') 6/19/95	(0 - 1.2') 6/19/95	(1.2 - 2.4') 6/19/95	(2.4 - 3.6') 6/19/95	(0 - 1.3') 6/19/95	(1.3 - 2.6') 6/19/95	(2.6 - 3.9') 6/19/95	(0 - 1.2') 6/19/95
Constituents (ug/kg)	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS
SVOCs (Cont'd.)																	
2-Picoline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	440 U	440 U	400 U	490 U	450 U	520 U	510 U	460 U	430 U	460 U	510 U	480 U	440 U	520 U	470 U	450 U	600 U
3,3'-Dimethylbenzidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	1,100 U	1,100 U	970 U	1,200 U	1,100 U	1,300 U	1,200 U	1,100 U	1,100 U	1,100 U	1,200 U	1,200 U	1,100 U	1,300 U	1,100 U	1,100 U	1,500 U
4,6-Dinitro-2-methylphenol	1,100 UJ	1,100 UJ	970 U	1,200 U	1,100 U	1,300 U	1,200 U	1,100 U	1,100 UJ	1,100 U	1,200 U	1,200 U	1,100 U	1,300 U	1,100 U	1,100 U	1,500 U
4-Aminobiphenyl	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	220 U	220 U	200 U	240 U	230 U	260 U	260 U	230 U	220 U	230 U	260 U	240 U	220 U	260 U	230 U	220 U	300 U
4-Chloro-3-methylphenol	220 U	220 U	200 U	240 U	230 U	260 U	260 U	230 U	220 U	230 U	260 U	240 U	220 U	260 U	230 U	220 U	300 U
4-Chloroaniline	220 U	220 U	200 U	240 U	230 U	260 U	260 U	230 U	220 U	230 U	260 U	240 U	220 U	260 U	230 U	220 U	300 U
4-Chlorophenyl phenyl ether	220 U	220 UJ	200 U	240 U	230 U	260 U	260 U	230 U	220 U	230 U	260 U	240 U	220 U	260 U	230 U	220 U	300 U
4-Methylphenol	220 U	220 U	200 U	240 U	230 U	260 U	260 U	230 U	220 U	230 U	260 U	240 U	220 U	260 U	230 U	220 U	300 U
4-Nitroaniline	1,100 UJ	1,100 UJ	970 U	1,200 U	1,100 U	1,300 U	1,200 U	1,100 UJ	1,100 UJ	1,100 UJ	1,200 U	1,200 U	1,100 U	1,300 U	1,100 U	1,100 U	1,500 U
4-Nitrophenol	1,100 UJ	1,100 UJ	970 U	1,200 U	1,100 U	1,300 U	1,200 U	1,100 UJ	1,100 UJ	1,100 UJ	1,200 U	1,200 U	1,100 U	1,300 U	1,100 U	1,100 U	1,500 U
4-Nitroquinoline1-oxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	220 U	220 U	200 U	240 U	230 U	260 U	260 U	230 U	220 U	230 U	260 U	240 U	220 U	260 U	230 U	220 U	300 U
Acenaphthylene	220 U	220 U	200 U	240 U	230 U	260 U	260 U	230 U	220 U	230 U	260 U	240 U	220 U	260 U	230 U	220 U	300 U
Acetophenone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha,alpha-Dimethyl phenethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	**41 J**	220 U	200 U	240 U	230 U	260 U	260 U	230 U	220 U	230 U	260 U	240 U	220 U	260 U	230 U	220 U	300 U
Benzo(a)anthracene	**280**	220 U	**47 J**	**53 J**	230 U	260 U	260 U	230 U	220 U	230 U	260 U	240 U	220 U	260 U	230 U	220 U	300 U
Benzo(a)pyrene	**250**	220 U	**64 J**	**70 J**	**48 J**	260 U	260 U	230 U	220 U	230 U	260 U	240 U	220 U	260 U	230 U	220 U	300 U
Benzo(b)fluoranthene	**280**	220 U	**90 J**	**82 J**	230 U	260 U	260 U	230 U	220 U	230 U	260 U	240 U	220 U	260 U	230 U	220 U	300 U
Benzo(g,h,i)perylene	**91 J**	220 U	200 U	240 U	230 U	260 U	260 U	230 U	220 U	230 U	260 U	240 U	220 U	260 U	230 U	220 U	300 U
Benzo(k)fluoranthene	220 U	220 U	**53 J**	240 U	230 U	260 U	260 U	230 U	220 U	230 U	260 U	240 U	220 U	260 U	230 U	220 U	300 U
Benzyl alcohol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	220 U	220 U	200 U	240 U	230 U	260 U	260 U	230 U	220 U	230 U	260 U	240 U	220 U	260 U	230 U	220 U	300 U
bis(2-Chloroethyl)ether	220 UJ	220 U	200 U	240 U	230 U	260 U	260 U	230 U	220 U	230 U	260 U	240 U	220 U	260 U	230 U	220 U	300 U
bis(2-Ethylhexyl)phthalate	220 U	220 U	**97 J**	240 U	230 U	260 U	260 U	230 UJ	**29 J**	230 UJ	260 U	240 U	220 U	**190 J**	230 U	220 U	300 U
Butyl benzyl phthalate	220 U	220 U	200 U	240 U	230 U	260 U	260 U	230 UJ	220 U	230 UJ	260 U	240 U	220 U	260 U	230 U	220 U	300 U
Carbazole	220 U	220 U	200 U	240 U	230 U	260 U	260 U	230 U	220 U	230 U	260 U	240 U	220 U	260 U	230 U	220 U	300 U
Chrysene	**340**	220 U	**68 J**	**62 J**	230 U	260 U	260 U	230 U	220 U	230 U	260 U	240 U	220 U	260 U	230 U	220 U	300 U
Di-n-butyl phthalate	**180 J**	220 U	200 U	240 U	230 U	260 U	260 U	**110 J**	**190 J**	**140 J**	260 U	240 U	220 U	260 U	230 U	220 U	300 U
Di-n-octyl phthalate	220 U	220 U	200 U	240 U	230 U	260 U	260 U	230 U	220 U	230 U	260 U	240 U	220 U	260 U	230 U	220 U	300 U
Diallate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	220 U	220 U	200 U	240 U	230 U	260 U	260 U	230 U	220 U	230 U	260 U	240 U	220 U	260 U	230 U	220 U	300 U
Dibenzofuran	220 U	220 U	200 U	240 U	230 U	260 U	260 U	230 U	220 U	230 U	260 U	240 U	220 U	260 U	230 U	220 U	300 U
Diethyl phthalate	220 UJ	220 U	200 U	240 U	230 U	260 U	260 U	230 U	220 UJ	230 U	260 U	240 U	220 U	260 U	230 U	220 U	300 U
Dimethyl phthalate	220 UJ	220 UJ	200 U	240 U	230 U	260 U	260 U	230 U	220 UJ	230 U	260 U	240 U	220 U	260 U	230 U	220 U	300 U

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SEDIMENT ANALYTICAL DATA
ORGANIC COMPOUNDS SEDIMENT ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

	SD-22		SD-23			SD-24		SD-25			SD-26			SD-27			
	(1.2 - 2.4') 6/19/95	(2.4 - 3.6') 6/19/95	(0 - 1.2') 6/19/95	(1.2 - 2.4') 6/19/95	(2.4 - 3.6') 6/19/95	(0 - 1.5') 6/19/95	(1.5 - 3') 6/19/95	(0 - 1.1') 6/19/95	(1.1 - 2.2') 6/19/95	(2.2 - 3.3') 6/19/95	(0 - 1.2') 6/19/95	(1.2 - 2.4') 6/19/95	(2.4 - 3.6') 6/19/95	(0 - 1.3') 6/19/95	(1.3 - 2.6') 6/19/95	(2.6 - 3.9') 6/19/95	(0 - 1.2') 6/19/95
Constituents (ug/kg)	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS
SVOCs (Cont'd.)																	
Diphenylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl methacrylate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl methanesulfonate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	**560**	220 U	**130 J**	**65 J**	230 U	260 U	260 U	230 U	220 U	230 U	260 U	240 U	220 U	260 U	230 U	220 U	300 U
Fluorene	220 U	220 U	200 U	240 U	230 U	260 U	260 U	230 U	220 U	230 U	260 U	240 U	220 U	260 U	230 U	220 U	300 U
Hexachlorobenzene	220 U	220 U	200 U	240 U	230 U	260 U	260 U	230 U	220 U	230 U	260 U	240 U	220 U	260 U	230 U	220 U	300 U
Hexachlorobutadiene	220 U	220 U	200 U	240 U	230 U	260 U	260 U	230 U	220 U	230 U	260 U	240 U	220 U	260 U	230 U	220 U	300 U
Hexachlorocyclopentadiene	220 U	220 U	200 U	240 U	230 U	260 U	260 U	230 U	220 U	230 U	260 U	240 U	220 U	260 U	230 U	220 U	300 U
Hexachloroethane	220 U	220 U	200 U	240 U	230 U	260 U	260 U	230 U	220 U	230 U	260 U	240 U	220 U	260 U	230 U	220 U	300 U
Hexachloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	**90 J**	220 U	200 U	240 U	230 U	260 U	260 U	230 U	220 U	230 U	260 U	240 U	220 U	260 U	230 U	220 U	300 U
Isophorone	220 U	220 U	200 U	240 U	230 U	260 U	260 U	230 U	220 U	230 U	260 U	240 U	220 U	260 U	230 U	220 U	300 U
Isosafrole, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl methanesulfonate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	220 U	220 U	200 U	240 U	230 U	260 U	260 U	230 U	220 U	230 U	260 U	240 U	220 U	260 U	230 U	220 U	300 U
N-Nitrosodi-n-butylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	220 U	220 U	200 U	240 U	230 U	260 U	260 U	230 U	220 U	230 U	260 U	240 U	220 U	260 U	230 U	220 U	300 U
N-Nitrosomethylethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	220 U	220 U	200 U	240 U	230 U	260 U	260 U	230 U	220 U	230 U	260 U	240 U	220 U	260 U	230 U	220 U	300 U
Nitrobenzene	220 U	220 U	200 U	240 U	230 U	260 U	260 U	230 U	220 U	230 U	260 U	240 U	220 U	260 U	230 U	220 U	300 U
o-Toluidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Chlorobenzilate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Phenylene diamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	1,100 U	1,100 U	970 U	1,200 U	1,100 U	1,300 U	1,200 U	1,100 U	1,100 U	1,100 U	1,200 U	1,200 U	1,100 U	1,300 U	1,100 U	1,100 U	1,500 U
Phenacetin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	**210 J**	220 U	**72 J**	240 U	230 U	260 U	260 U	230 U	220 U	230 U	260 U	240 U	220 U	260 U	230 U	220 U	300 U
Phenol	220 U	220 U	200 U	240 U	230 U	260 U	260 U	230 U	220 U	230 U	260 U	240 U	220 U	260 U	230 U	220 U	300 U
Pronamide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	**580**	220 U	**88 J**	**63 J**	230 U	260 U	260 U	230 U	220 U	230 U	260 U	240 U	220 U	260 U	230 U	220 U	300 U
Safrole, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetraethyl Dithiopyrophosphate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-8
SEDIMENT ANALYTICAL DATA
ORGANIC COMPOUNDS SEDIMENT ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

	SD-22		SD-23			SD-24		SD-25			SD-26			SD-27			
	(1.2 - 2.4') 6/19/95	(2.4 - 3.6') 6/19/95	(0 - 1.2') 6/19/95	(1.2 - 2.4') 6/19/95	(2.4 - 3.6') 6/19/95	(0 - 1.5') 6/19/95	(1.5 - 3') 6/19/95	(0 - 1.1') 6/19/95	(1.1 - 2.2') 6/19/95	(2.2 - 3.3') 6/19/95	(0 - 1.2') 6/19/95	(1.2 - 2.4') 6/19/95	(2.4 - 3.6') 6/19/95	(0 - 1.3') 6/19/95	(1.3 - 2.6') 6/19/95	(2.6 - 3.9') 6/19/95	(0 - 1.2') 6/19/95
Constituents (ug/kg)	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS
PCBs																	
Aroclor-1016	220 U	220 U	200 U	240 U	230 U	260 U	260 U	230 U	220 U	230 U	260 U	240 U	220 U	260 U	230 U	220 U	300 U
Aroclor-1221	220 U	220 U	200 U	240 U	230 U	260 U	260 U	230 U	220 U	230 U	260 U	240 U	220 U	260 U	230 U	220 U	300 U
Aroclor-1232	220 U	220 U	200 U	240 U	230 U	260 U	260 U	230 U	220 U	230 U	260 U	240 U	220 U	260 U	230 U	220 U	300 U
Aroclor-1242	220 U	220 U	200 U	240 U	230 U	260 U	260 U	230 U	220 U	230 U	260 U	240 U	220 U	260 U	230 U	220 U	300 U
Aroclor-1248	220 U	220 U	200 U	240 U	230 U	260 U	260 U	230 U	220 U	230 U	260 U	240 U	220 U	260 U	230 U	220 U	300 U
Aroclor-1254	220 U	220 U	200 U	240 U	230 U	260 U	260 U	230 U	220 U	230 U	260 U	240 U	220 U	260 U	230 U	220 U	300 U
Aroclor-1260	220 U	220 U	200 U	240 U	230 U	260 U	260 U	230 U	220 U	230 U	260 U	240 U	220 U	260 U	230 U	220 U	300 U
Total Aroclors	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pesticide/Herbicide																	
2,4,5-T	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	39 UJ	37 UJ	34 UJ	39 UJ	35 UJ	34 UJ	NA
2,4,5-TP(Silvex)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	39 UJ	37 UJ	34 UJ	39 UJ	35 UJ	34 UJ	NA
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	160 U	150 U	130 U	160 U	140 U	140 U	NA
4,4'-DDD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.6 U	2.4 U	2.2 U	4.2 U*	2.3 U	2.2 U	NA
4,4'-DDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.6 UJ	2.4 UJ	2.2 UJ	4.2 UJ*	2.3 UJ	2.2 UJ	NA
4,4'-DDT	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.6 U	2.4 U	2.2 U	4.2 U*	2.3 U	2.2 U	NA
Aldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.3 UJ	1.2 UJ	1.1 UJ	2.1 UJ*	1.2 UJ	1.2 UJ	NA
alpha-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.3 U	1.2 U	1.1 U	2.1 U*	1.2 U	1.2 U	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.6 UJ	2.4 UJ	2.2 UJ	2.1 UJ*	2.3 UJ	2.2 UJ	NA
beta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.3 UJ	1.2 UJ	1.1 UJ	2.1 UJ*	1.2 UJ	1.2 UJ	NA
delta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.3 UJ	1.2 UJ	1.1 UJ	2.1 UJ*	1.2 UJ	1.2 UJ	NA
Dieldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.6 U	2.4 U	2.2 U	4.2 U*	2.3 U	2.2 U	NA
Dinoseb	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	16 UJ	15 UJ	13 UJ	16 UJ	14 UJ	14 UJ	NA
Endosulfan I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.6 U	2.4 U	2.2 U	2.6 U	2.3 U	2.2 U	NA
Endosulfan II	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.6 UJ	2.4 UJ	2.2 UJ	4.2 UJ*	2.3 UJ	2.2 UJ	NA
Endosulfan sulfate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.6 UJ	2.4 UJ	2.2 UJ	4.2 UJ*	2.3 UJ	2.2 UJ	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.6 UJ	2.4 UJ	2.2 UJ	4.2 UJ*	2.3 UJ	2.2 UJ	NA
Endrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.6 U	2.4 U	2.2 U	4.2 U*	2.3 U	2.2 U	NA
gamma-BHC (Lindane)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.3 U	1.2 U	1.1 U	2.1 U*	1.2 U	1.2 U	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.6 UJ	2.4 UJ	2.2 UJ	2.1 UJ*	2.3 UJ	2.2 UJ	NA
Heptachlor epoxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.3 U	1.2 UJ	1.1 UJ	2.1 UJ*	1.2 UJ	1.2 UJ	NA
Heptachlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.3 U	1.2 U	1.1 U	2.1 U*	1.2 U	1.2 U	NA
Isodrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	12 U	12 U	11 U	13 U	11 U	11 U	NA
Kepone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	120 U	120 U	110 U	130 U	110 U	110 U	NA
Methoxychlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	39 U	37 U	34 U	39 U	35 U	34 U	NA
Toxaphene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	130 U	120 U	110 U	130 U	120 U	120 U	NA
Dioxin/Furan																	
2,3,7,8-TCDD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0011 U	0.00032 U	0.00043 U	0.00094 U	0.00029 U	0.00029 U	NA
HxCDDs, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.01**	0.0025 U	0.00055 U	**0.0098**	0.00076 U	0.00041 U	NA
HxCDFs, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.14**	**0.024**	0.00020 U	**0.18**	0.0038 U	0.000095 U	NA
PeCDDs, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0036 U	0.0018 U	0.0017 U	0.0046 U	0.0018 U	0.0017 U	NA
PeCDFs, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.45**	**0.089**	0.00048 U	**0.5**	0.0052 U	0.00025 U	NA
TCDDs, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.018**	**0.0037**	0.00074 U	**0.017**	0.00074 U	0.00052 U	NA
TCDFs, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.71**	**0.16**	0.00047 U	**0.69**	**0.018**	0.00029 U	NA
2,3,7,8-TCDD TEQ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.09**	**0.02**	-	**0.098**	**0.000032**	-	NA

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TABLE A-8
SEDIMENT ANALYTICAL DATA
ORGANIC COMPOUNDS SEDIMENT ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

	SD-28		SD-29			SD-30			SD-31			SD-32			
	(1.2 - 2.4') 6/19/95	(2.4 - 3.6') 6/19/95	(0 - 1.2') 6/19/95	(1.2 - 2.4') 6/19/95	(2.4 - 3.6') 6/19/95	(0 - 1.1') 6/19/95	(1.1 - 2.2') 6/19/95	(2.2 - 3.3') 6/19/95	(0 - 1.1') 6/19/95	(1.1 - 2.2') 6/19/95	(2.2 - 3.3') 6/19/95	(0 - 1.4') 6/19/95		(1.4 - 2.8') 6/19/95	(2.8 - 4.2') 6/19/95
Constituents (ug/kg)	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**DUP**	**FS**	**FS**
VOCs															
1,1,1,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	7.2 U	6.7 U	8.2 U	7.2 U	7.4 U	8.6 U	6.3 U	6.6 U	8.8 U	6.8 U	6.1 U	10 U	11 U	6.6 U	6.2 U
1,1,2,2-Tetrachloroethane	7.2 U	6.7 U	8.2 U	7.2 U	7.4 U	8.6 U	6.3 U	6.6 U	8.8 U	6.8 U	6.1 U	10 U	11 U	6.6 U	6.2 U
1,1,2-Trichloroethane	7.2 U	6.7 U	8.2 U	7.2 U	7.4 U	8.6 U	6.3 U	6.6 U	8.8 U	6.8 U	6.1 U	10 U	11 U	6.6 U	6.2 U
1,1-Dichloroethane	7.2 U	6.7 U	8.2 U	7.2 U	7.4 U	8.6 U	6.3 U	6.6 U	8.8 U	6.8 U	6.1 U	10 U	11 U	6.6 U	6.2 U
1,1-Dichloroethene	7.2 U	6.7 U	8.2 U	7.2 U	7.4 U	8.6 U	6.3 U	6.6 U	8.8 U	6.8 U	6.1 U	10 U	11 U	6.6 U	6.2 U
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	7.2 U	6.7 U	8.2 U	7.2 U	7.4 U	8.6 U	6.3 U	6.6 U	8.8 U	6.8 U	6.1 U	10 U	11 U	6.6 U	6.2 U
1,2-Dichloroethane	7.2 U	6.7 U	8.2 U	7.2 U	7.4 U	8.6 U	6.3 U	6.6 U	8.8 U	6.8 U	6.1 U	10 U	11 U	6.6 U	6.2 U
1,2-Dichloroethene, Total	7.2 U	6.7 U	8.2 U	7.2 U	7.4 U	8.6 U	6.3 U	6.6 U	8.8 U	6.8 U	6.1 U	10 U	11 U	6.6 U	6.2 U
1,2-Dichloropropane	7.2 U	6.7 U	8.2 U	7.2 U	7.4 U	8.6 U	6.3 U	6.6 U	8.8 U	6.8 U	6.1 U	10 U	11 U	6.6 U	6.2 U
1,3-Dichlorobenzene	7.2 U	6.7 U	8.2 U	7.2 U	7.4 U	8.6 U	6.3 U	6.6 U	8.8 U	6.8 U	6.1 U	10 U	11 U	6.6 U	6.2 U
1,4-Dichlorobenzene	7.2 U	6.7 U	8.2 U	7.2 U	7.4 U	8.6 U	6.3 U	6.6 U	8.8 U	6.8 U	6.1 U	10 U	11 U	6.6 U	6.2 U
1,4-Dioxane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	**4.6 J**	**3.5 J**	82 U	72 U	**5.6 J**	86 U	63 U	**4.3 J**	88 U	68 U	61 U	100 U	**52 J**	**66 J**	62 U
2-Chloro-1,3-butadiene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	72 U	67 U	82 U	72 U	74 U	86 U	63 U	66 UJ	88 U	68 U	61 U	100 U	**110 J**	**66 J**	62 U
3-Chloro-1-propene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	72 U	67 U	82 U	72 U	74 U	86 U	63 U	66 UJ	88 U	68 U	61 U	100 U	110 U	66 U	62 U
Acetone	28 U	**26 J**	**9.4 J**	72 UJ	**23 J**	86 UJ	**5.4 J**	**18 J**	88 U	68 U	61 U	200 U	**200 J**	66 U	62 U
Acetonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	7.2 U	6.7 U	8.2 U	7.2 U	7.4 U	8.6 U	6.3 U	6.6 U	8.8 U	6.8 U	6.1 U	10 U	11 U	6.6 U	6.2 U
Bromodichloromethane	7.2 U	6.7 U	8.2 U	7.2 U	7.4 U	8.6 U	6.3 U	6.6 U	8.8 U	6.8 U	6.1 U	10 U	11 U	6.6 U	6.2 U
Bromoform	7.2 U	6.7 U	8.2 U	7.2 U	7.4 U	8.6 U	6.3 U	6.6 U	8.8 U	6.8 U	6.1 U	10 U	11 U	6.6 U	6.2 U
Bromomethane	7.2 U	6.7 U	8.2 U	7.2 U	7.4 U	8.6 U	6.3 U	6.6 U	**8.8 J**	**6.8 J**	**6.1 J**	**10 J**	11 U	6.6 U	**6.2 J**
Carbon disulfide	7.2 U	6.7 U	8.2 U	7.2 U	7.4 U	8.6 U	6.3 U	6.6 U	8.8 U	6.8 U	6.1 U	10 U	11 U	6.6 U	6.2 U
Carbon tetrachloride	7.2 U	6.7 U	8.2 U	7.2 U	7.4 U	8.6 U	6.3 U	6.6 U	8.8 U	6.8 U	6.1 U	10 U	11 U	6.6 U	6.2 U
Chlorobenzene	7.2 U	6.7 U	8.2 U	7.2 U	7.4 U	8.6 U	6.3 U	6.6 U	8.8 U	6.8 U	6.1 U	10 U	11 U	6.6 U	6.2 U
Chlorodibromomethane	7.2 U	6.7 U	8.2 U	7.2 U	7.4 U	8.6 U	6.3 U	6.6 U	8.8 U	6.8 U	6.1 U	10 U	11 U	6.6 U	6.2 U
Chloroethane	7.2 UJ	6.7 U	8.2 U	7.2 U	7.4 U	8.6 U	6.3 U	6.6 U	**8.8 J**	**6.8 J**	**6.1 J**	**10 J**	11 U	6.6 U	**6.2 J**
Chloroform	7.2 U	6.7 U	8.2 U	7.2 U	7.4 U	8.6 U	6.3 U	6.6 U	8.8 U	6.8 U	6.1 U	10 U	11 U	6.6 U	6.2 U
Chloromethane	7.2 U	6.7 U	8.2 U	7.2 U	7.4 U	8.6 U	6.3 U	6.6 U	**8.8 J**	**6.8 J**	**6.1 J**	**10 J**	11 U	6.6 U	**6.2 J**
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	7.2 U	6.7 U	8.2 U	7.2 U	7.4 U	8.6 U	6.3 U	6.6 U	8.8 U	6.8 U	6.1 U	10 U	11 U	6.6 U	6.2 U
Dibromomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	7.2 U	6.7 U	8.2 U	7.2 U	7.4 U	8.6 U	6.3 U	6.6 U	8.8 U	6.8 U	6.1 U	10 U	11 U	6.6 U	6.2 U
Iodomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isobutyl alcohol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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ORGANIC COMPOUNDS SEDIMENT ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

	SD-28		SD-29			SD-30			SD-31			SD-32			
	(1.2 - 2.4') 6/19/95	(2.4 - 3.6') 6/19/95	(0 - 1.2') 6/19/95	(1.2 - 2.4') 6/19/95	(2.4 - 3.6') 6/19/95	(0 - 1.1') 6/19/95	(1.1 - 2.2') 6/19/95	(2.2 - 3.3') 6/19/95	(0 - 1.1') 6/19/95	(1.1 - 2.2') 6/19/95	(2.2 - 3.3') 6/19/95	(0 - 1.4') 6/19/95		(1.4 - 2.8') 6/19/95	(2.8 - 4.2') 6/19/95
Constituents (ug/kg)	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**DUP**	**FS**	**FS**
VOCs (Cont'd.)															
Methyl methacrylate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	28 U	42 U	8.2 U	7.2 U	13 U	8.6 U	4.8 U	6.6 U	11 U	11 U	6.0 U	10 U	68 U	9.5 U	9.1 U
Propionitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyridine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	7.2 U	6.7 U	8.2 U	7.2 U	7.4 U	8.6 U	6.3 U	6.6 U	8.8 U	6.8 U	6.1 U	10 U	11 U	6.6 U	6.2 U
Tetrachloroethene	7.2 U	6.7 U	8.2 U	7.2 U	7.4 U	8.6 U	6.3 U	6.6 U	8.8 U	6.8 U	6.1 U	10 U	11 U	6.6 U	6.2 U
Toluene	7.2 U	6.7 U	8.2 U	7.2 U	**5.1 J**	8.6 U	6.3 U	6.6 U	8.8 U	6.8 U	**5.2 J**	10 U	11 U	6.6 U	**3.0 J**
trans-1,2-Dichloroethene	7.2 U	6.7 U	8.2 U	7.2 U	7.4 U	8.6 U	6.3 U	6.6 U	8.8 U	6.8 U	6.1 U	10 U	11 U	6.6 U	6.2 U
trans-1,3-Dichloropropene	7.2 U	6.7 U	8.2 U	7.2 U	7.4 U	8.6 U	6.3 U	6.6 U	8.8 U	6.8 U	6.1 U	10 U	11 U	6.6 U	6.2 U
trans-1,4-Dichloro-2-butene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	7.2 U	6.7 U	8.2 U	7.2 U	7.4 U	8.6 U	6.3 U	6.6 U	8.8 U	6.8 U	6.1 U	10 U	11 U	6.6 U	6.2 U
Trichlorofluoromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	7.2 U	6.7 U	8.2 U	7.2 U	7.4 U	8.6 U	6.3 U	6.6 U	8.8 U	6.8 U	6.1 U	10 U	11 U	6.6 U	6.2 U
Xylenes, Total	7.2 U	6.7 U	8.2 U	7.2 U	7.4 U	8.6 U	6.3 U	6.6 U	8.8 U	6.8 U	6.1 U	10 U	11 U	6.6 U	6.2 U
SVOCs															
1,2,4,5-Tetrachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	240 U	220 U	270 U	240 U	240 U	280 U	210 U	220 U	290 U	220 U	200 U	340 U	350 U	220 U	210 U
1,2-Dichlorobenzene	7.2 U	6.7 U	8.2 U	7.2 U	7.4 U	8.6 U	6.3 U	6.6 U	8.8 U	6.8 U	6.1 U	10 U	11 U	6.6 U	6.2 U
1,3,5-Trinitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	7.2 U	6.7 U	8.2 U	7.2 U	7.4 U	8.6 U	6.3 U	6.6 U	8.8 U	6.8 U	6.1 U	10 U	11 U	6.6 U	6.2 U
1,3-Dinitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	7.2 U	6.7 U	8.2 U	7.2 U	7.4 U	8.6 U	6.3 U	6.6 U	8.8 U	6.8 U	6.1 U	10 U	11 U	6.6 U	6.2 U
1,4-Naphthoquinone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(dichloropropane)	240 U	220 U	270 U	240 U	240 U	280 U	210 U	220 U	290 U	220 U	200 U	340 U	350 U	220 U	210 U
2,3,4,6-Tetrachlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	240 U	220 U	270 U	240 U	240 U	280 U	210 U	220 U	290 U	220 U	200 U	340 U	350 U	220 U	210 U
2,4,6-Trichlorophenol	240 U	220 U	270 U	240 U	240 U	280 U	210 U	220 U	290 U	220 U	200 U	340 U	350 U	220 U	210 U
2,4-Dichlorophenol	240 U	220 U	270 U	240 U	240 U	280 U	210 U	220 U	290 U	220 U	200 U	340 U	350 U	220 U	210 U
2,4-Dimethylphenol	240 U	220 U	270 U	240 U	240 U	280 U	210 U	220 U	290 U	220 U	200 U	340 U	350 U	220 U	210 U
2,4-Dinitrophenol	1,100 U	1,100 U	1,300 U	1,100 U	1,200 U	1,400 U	1,000 U	1,100 U	1,400 U	1,100 U	980 U	1,600 U	1,700 U	1,100 U	1,000 U
2,4-Dinitrotoluene	240 U	220 U	270 U	240 U	240 U	280 U	210 U	220 U	290 U	220 U	200 U	340 U	350 U	220 U	210 U
2,6-Dichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	240 U	220 U	270 U	240 U	240 U	280 U	210 U	220 U	290 U	220 U	200 U	340 U	350 U	220 U	210 U
2-Acetylaminofluorene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	240 U	220 U	270 U	240 U	240 U	280 U	210 U	220 U	290 U	220 U	200 U	340 U	350 U	220 U	210 U
2-Chlorophenol	240 U	220 U	270 U	240 U	240 U	280 U	210 U	220 U	290 U	220 U	200 U	340 U	350 U	220 U	210 U
2-Methylnaphthalene	**30 J**	220 U	**620**	240 U	240 U	**65 J**	210 U	220 U	290 U	220 U	200 U	**100 J**	**140 J**	220 U	210 U
2-Methylphenol	240 U	220 U	270 U	240 U	240 U	280 U	210 U	220 U	290 U	220 U	200 U	340 U	350 U	220 U	210 U
2-Methylphenol	240 U	220 U	270 U	240 U	240 U	280 U	210 U	220 U	290 U	220 U	200 U	340 U	350 U	220 U	210 U
2-Naphthylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	1,100 U	1,100 U	1,300 U	1,100 U	1,200 U	1,400 U	1,000 U	1,100 U	1,400 U	1,100 U	980 U	1,600 U	1,700 U	1,100 U	1,000 U
2-Nitrophenol	240 U	220 U	270 U	240 U	240 U	280 U	210 U	220 U	290 U	220 U	200 U	340 U	350 U	220 U	210 U

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TABLE A-8
SEDIMENT ANALYTICAL DATA
ORGANIC COMPOUNDS SEDIMENT ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

	SD-28		SD-29			SD-30			SD-31			SD-32			
	(1.2 - 2.4') 6/19/95	(2.4 - 3.6') 6/19/95	(0 - 1.2') 6/19/95	(1.2 - 2.4') 6/19/95	(2.4 - 3.6') 6/19/95	(0 - 1.1') 6/19/95	(1.1 - 2.2') 6/19/95	(2.2 - 3.3') 6/19/95	(0 - 1.1') 6/19/95	(1.1 - 2.2') 6/19/95	(2.2 - 3.3') 6/19/95	(0 - 1.4') 6/19/95		(1.4 - 2.8') 6/19/95	(2.8 - 4.2') 6/19/95
Constituents (ug/kg)	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**DUP**	**FS**	**FS**
SVOCs (Cont'd.)															
2-Picoline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	470 U	440 U	540 U	470 U	490 U	570 U	410 U	430 U	580 U	450 U	410 U	680 U	700 U	440 U	410 U
3,3'-Dimethylbenzidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	1,100 U	1,100 U	1,300 U	1,100 U	1,200 U	1,400 U	1,000 U	1,100 U	1,400 U	1,100 U	980 U	1,600 U	1,700 U	1,100 U	1,000 U
4,6-Dinitro-2-methylphenol	1,100 U	1,100 U	1,300 U	1,100 U	1,200 U	1,400 U	1,000 U	1,100 U	1,400 U	1,100 U	980 U	1,600 U	1,700 U	1,100 U	1,000 U
4-Aminobiphenyl	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	240 U	220 U	270 U	240 U	240 U	280 U	210 U	220 U	290 U	220 U	200 U	340 U	350 U	220 U	210 U
4-Chloro-3-methylphenol	240 U	220 U	270 U	240 U	240 U	280 U	210 U	220 U	290 U	220 U	200 U	340 U	350 U	220 U	210 U
4-Chloroaniline	240 U	220 U	270 U	240 U	240 U	280 U	210 U	220 U	290 U	220 U	200 U	340 U	350 U	220 U	210 U
4-Chlorophenyl phenyl ether	240 U	220 U	270 U	240 U	240 U	280 U	210 U	220 U	290 U	220 U	200 U	340 U	350 U	220 U	210 U
4-Methylphenol	240 U	220 U	270 U	240 U	240 U	280 U	210 U	220 U	290 U	220 U	200 U	340 U	350 U	220 U	210 U
4-Nitroaniline	1,100 U	1,100 U	1,300 U	1,100 U	1,200 U	1,400 U	1,000 U	1,100 U	1,400 UJ	1,100 UJ	980 U	1,600 UJ	1,700 U	1,100 UJ	1,000 U
4-Nitrophenol	1,100 U	1,100 U	1,300 U	1,100 U	1,200 U	1,400 U	1,000 U	1,100 U	1,400 U	1,100 U	980 U	1,600 U	1,700 U	1,100 U	1,000 U
4-Nitroquinoline1-oxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	240 U	220 U	270 U	240 U	240 U	280 U	210 U	220 U	290 U	220 U	200 U	340 U	350 U	220 U	210 U
Acenaphthylene	240 U	220 U	270 U	240 U	240 U	280 U	210 U	220 U	290 U	220 U	200 U	340 U	350 U	220 U	210 U
Acetophenone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha,alpha-Dimethyl phenethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	240 U	220 U	**36 J**	240 U	240 U	280 U	210 U	220 U	290 U	220 U	200 U	340 U	350 U	220 U	210 U
Benzo(a)anthracene	240 U	220 U	270 U	240 U	240 U	280 U	210 U	220 U	290 U	220 U	200 U	340 U	350 U	220 U	210 U
Benzo(a)pyrene	240 U	220 U	270 U	240 U	240 U	280 U	210 U	220 U	290 U	220 U	200 U	340 U	350 U	220 U	210 U
Benzo(b)fluoranthene	240 U	220 U	270 U	240 U	240 U	280 U	210 U	220 U	290 U	220 U	200 U	340 U	350 U	220 U	210 U
Benzo(g,h,i)perylene	240 U	220 U	270 U	240 U	240 U	280 U	210 U	220 U	290 U	220 U	200 U	340 U	350 U	220 U	210 U
Benzo(k)fluoranthene	240 U	220 U	270 U	240 U	240 U	280 U	210 U	220 U	290 U	220 U	200 U	340 U	350 U	220 U	210 U
Benzyl alcohol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	240 U	220 U	270 U	240 U	240 U	280 U	210 U	220 U	290 U	220 U	200 U	340 U	350 U	220 U	210 U
bis(2-Chloroethyl)ether	240 U	220 U	270 U	240 U	240 U	280 U	210 U	220 U	290 U	220 U	200 U	340 U	350 U	220 U	210 U
bis(2-Ethylhexyl)phthalate	240 U	220 U	**87 J**	**27 J**	240 U	280 U	210 U	220 U	290 U	**59 J**	200 U	**170 J**	350 U	**110 J**	210 U
Butyl benzyl phthalate	240 U	220 U	270 U	240 U	240 U	280 U	210 U	220 U	290 U	220 U	200 U	340 U	350 U	220 U	210 U
Carbazole	240 U	220 U	270 U	240 U	240 U	280 U	210 U	220 U	290 U	220 U	200 U	340 U	350 U	220 U	210 U
Chrysene	240 U	220 U	**43 J**	240 U	240 U	280 U	210 U	220 U	290 U	220 U	200 U	340 U	**47 J**	220 U	210 U
Di-n-butyl phthalate	240 U	220 U	270 U	240 U	240 U	280 U	210 U	220 U	290 U	220 U	200 U	340 U	350 U	220 U	210 U
Di-n-octyl phthalate	240 U	220 U	270 U	240 U	240 U	280 U	210 U	220 U	290 U	220 U	200 U	340 U	350 U	220 U	210 U
Diallate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	240 U	220 U	270 U	240 U	240 U	280 U	210 U	220 U	290 U	220 U	200 U	340 U	350 U	220 U	210 U
Dibenzofuran	240 U	220 U	**120 J**	240 U	240 U	280 U	210 U	220 U	290 U	220 U	200 U	340 U	350 U	220 U	210 U
Diethyl phthalate	240 U	220 U	270 U	240 U	240 U	280 U	210 U	220 U	290 U	220 U	200 U	340 U	350 U	220 U	210 U
Dimethyl phthalate	240 U	220 U	270 U	240 U	240 U	280 U	210 U	220 U	290 U	220 U	200 U	340 U	350 U	220 U	210 U

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

	SD-28		SD-29			SD-30			SD-31			SD-32			
	(1.2 - 2.4') 6/19/95	(2.4 - 3.6') 6/19/95	(0 - 1.2') 6/19/95	(1.2 - 2.4') 6/19/95	(2.4 - 3.6') 6/19/95	(0 - 1.1') 6/19/95	(1.1 - 2.2') 6/19/95	(2.2 - 3.3') 6/19/95	(0 - 1.1') 6/19/95	(1.1 - 2.2') 6/19/95	(2.2 - 3.3') 6/19/95	(0 - 1.4') 6/19/95		(1.4 - 2.8') 6/19/95	(2.8 - 4.2') 6/19/95
Constituents (ug/kg)	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**DUP**	**FS**	**FS**
SVOCs (Cont'd.)															
Diphenylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl methacrylate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl methanesulfonate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	240 U	220 U	**59 J**	240 U	240 U	280 U	210 U	220 U	290 U	220 U	200 U	340 U	350 U	220 U	210 U
Fluorene	240 U	220 U	270 U	240 U	240 U	280 U	210 U	220 U	290 U	220 U	200 U	340 U	350 U	220 U	210 U
Hexachlorobenzene	240 U	220 U	270 U	240 U	240 U	280 U	210 U	220 U	290 U	220 U	200 U	340 U	350 U	220 U	210 U
Hexachlorobutadiene	240 U	220 U	270 U	240 U	240 U	280 U	210 U	220 U	290 U	220 U	200 U	340 U	350 U	220 U	210 U
Hexachlorocyclopentadiene	240 U	220 U	270 U	240 U	240 U	280 U	210 U	220 U	290 U	220 U	200 U	340 U	350 U	220 U	210 U
Hexachloroethane	240 U	220 U	270 U	240 U	240 U	280 U	210 U	220 U	290 U	220 U	200 U	340 U	350 U	220 U	210 U
Hexachloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	240 U	220 U	270 U	240 U	240 U	280 U	210 U	220 U	290 U	220 U	200 U	340 U	350 U	220 U	210 U
Isophorone	240 U	220 U	270 U	240 U	240 U	280 U	210 U	220 U	290 U	220 U	200 U	340 U	350 U	220 U	210 U
Isosafrole, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl methanesulfonate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	240 U	220 U	270 U	240 U	240 U	280 U	210 U	220 U	290 U	220 U	200 U	340 U	350 U	220 U	210 U
N-Nitrosodi-n-butylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	240 U	220 U	270 U	240 U	240 U	280 U	210 U	220 U	290 U	220 U	200 U	340 U	350 U	220 U	210 U
N-Nitrosomethylethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	240 U	220 U	**430**	240 U	240 U	280 U	210 U	220 U	290 U	220 U	200 U	340 U	**100 J**	220 U	210 U
Nitrobenzene	240 U	220 U	270 U	240 U	240 U	280 U	210 U	220 U	290 U	220 U	200 U	340 U	350 U	220 U	210 U
o-Toluidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Chlorobenzilate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Phenylene diamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	1,100 U	1,100 U	1,300 U	1,100 U	1,200 U	1,400 U	1,000 U	1,100 U	1,400 U	1,100 U	980 U	1,600 U	1,700 U	1,100 U	1,000 U
Phenacetin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	240 U	220 U	**270**	240 U	240 U	280 U	210 U	220 U	290 U	220 U	200 U	**65 J**	**96 J**	220 U	210 U
Phenol	240 U	220 U	270 U	240 U	240 U	280 U	210 U	220 U	290 U	220 U	200 U	340 U	350 U	220 U	210 U
Pronamide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	240 U	220 U	**50 J**	240 U	240 U	280 U	210 U	220 U	290 U	220 U	200 U	340 U	**50 J**	220 U	210 U
Safrole, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetraethyl Dithiopyrophosphate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

	SD-28		SD-29			SD-30			SD-31			SD-32			
	(1.2 - 2.4') 6/19/95	(2.4 - 3.6') 6/19/95	(0 - 1.2') 6/19/95	(1.2 - 2.4') 6/19/95	(2.4 - 3.6') 6/19/95	(0 - 1.1') 6/19/95	(1.1 - 2.2') 6/19/95	(2.2 - 3.3') 6/19/95	(0 - 1.1') 6/19/95	(1.1 - 2.2') 6/19/95	(2.2 - 3.3') 6/19/95	(0 - 1.4') 6/19/95		(1.4 - 2.8') 6/19/95	(2.8 - 4.2') 6/19/95
Constituents (ug/kg)	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**DUP**	**FS**	**FS**
PCBs															
Aroclor-1016	240 U	220 U	270 U	240 U	240 U	280 U	210 U	220 U	290 U	220 U	200 U	340 U	350 U	220 U	210 U
Aroclor-1221	240 U	220 U	270 U	240 U	240 U	280 U	210 U	220 U	290 U	220 U	200 U	340 U	350 U	220 U	210 U
Aroclor-1232	240 U	220 U	270 U	240 U	240 U	280 U	210 U	220 U	290 U	220 U	200 U	340 U	350 U	220 U	210 U
Aroclor-1242	240 U	220 U	270 U	240 U	240 U	280 U	210 U	220 U	290 U	220 U	200 U	340 U	350 U	220 U	210 U
Aroclor-1248	240 U	220 U	270 U	240 U	240 U	280 U	210 U	220 U	290 U	220 U	200 U	340 U	350 U	220 U	210 U
Aroclor-1254	240 U	220 U	270 U	240 U	240 U	280 U	210 U	220 U	290 U	220 U	200 U	340 U	350 U	220 U	210 U
Aroclor-1260	240 U	220 U	270 U	240 U	240 U	280 U	210 U	220 U	290 U	220 U	200 U	340 U	350 U	220 U	210 U
Total Aroclors	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pesticide/Herbicide															
2,4,5-T	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP(Silvex)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-BHC (Lindane)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor epoxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dioxin/Furan															
2,3,7,8-TCDD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HxCDDs, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HxCDFs, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PeCDDs, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PeCDFs, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCDDs, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCDFs, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD TEQ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-8
SEDIMENT ANALYTICAL DATA
ORGANIC COMPOUNDS SEDIMENT ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

	SD-33			SD-34			SD-35			SD-36			SD-37				SD-38	
	(0 - 1.3') 6/19/95	(1.3 - 2.6') 6/19/95	(2.6 - 3.9') 6/19/95	(0 - 1.3') 6/21/95	(1.3 - 2.6') 6/21/95	(2.6 - 3.9') 6/21/95	(0 - 1.5') 6/21/95	(1.5 - 3') 6/21/95	(3 - 4.5') 6/21/95	(0 - 1.2') 6/19/95	(1.2 - 2.4') 6/19/95	(2.4 - 3.6') 6/19/95	(0 - 1.3') 6/19/95	(1.3 - 2.6') 6/19/95		(2.6 - 3.9') 6/19/95	(0 - 1.2') 6/19/95	(1.2 - 2.4') 6/19/95
Constituents (ug/kg)	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**DUP**	**FS**	**FS**	**FS**
VOCs																		
1,1,1,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	11 U	14 U	5.9 U	7.1 U	7.5 U	7.0 U	9.9 U	7.0 U	7.4 U	7.2 U	7.0 U	7.6 U	7.1 U	7.3 U	7.5 U	6.6 U	10 U	6.6 U
1,1,2,2-Tetrachloroethane	11 U	14 U	5.9 U	7.1 UJ	7.5 U	7.0 U	9.9 U	7.0 U	7.4 U	7.2 U	7.0 U	7.6 U	7.1 U	7.3 U	7.5 U	6.6 U	10 U	6.6 U
1,1,2-Trichloroethane	11 U	14 U	5.9 U	7.1 U	7.5 U	7.0 U	9.9 U	7.0 U	7.4 U	7.2 U	7.0 U	7.6 U	7.1 U	7.3 U	7.5 U	6.6 U	10 U	6.6 U
1,1-Dichloroethane	11 U	14 U	5.9 U	7.1 U	7.5 U	7.0 U	9.9 U	7.0 U	7.4 U	7.2 U	7.0 U	7.6 U	7.1 U	7.3 U	7.5 U	6.6 U	10 U	6.6 U
1,1-Dichloroethene	11 U	14 U	5.9 U	7.1 U	7.5 U	7.0 U	9.9 U	7.0 U	7.4 U	7.2 U	7.0 U	7.6 U	7.1 U	7.3 U	7.5 U	6.6 U	10 U	6.6 U
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	11 U	14 U	5.9 U	7.1 UJ	7.5 U	7.0 U	9.9 U	7.0 U	7.4 U	7.2 U	7.0 U	7.6 U	7.1 U	7.3 U	7.5 U	6.6 U	10 U	6.6 U
1,2-Dichloroethane	11 U	14 U	5.9 U	7.1 U	7.5 U	7.0 U	9.9 U	7.0 U	7.4 U	7.2 U	7.0 U	7.6 U	7.1 U	7.3 U	7.5 U	6.6 U	10 U	6.6 U
1,2-Dichloroethene, Total	11 U	14 U	5.9 U	7.1 U	7.5 U	7.0 U	**5.1 J**	7.0 U	7.4 U	7.2 U	7.0 U	7.6 U	7.1 U	7.3 U	7.5 U	6.6 U	10 U	6.6 U
1,2-Dichloropropane	11 U	14 U	5.9 U	7.1 U	7.5 U	7.0 U	9.9 U	7.0 U	7.4 U	7.2 U	7.0 U	7.6 U	7.1 U	7.3 U	7.5 U	6.6 U	10 U	6.6 U
1,3-Dichlorobenzene	11 U	14 U	5.9 U	7.1 UJ	7.5 U	7.0 U	9.9 U	7.0 U	7.4 U	7.2 U	7.0 U	7.6 U	7.1 U	7.3 U	7.5 U	6.6 U	10 U	6.6 U
1,4-Dichlorobenzene	11 U	14 U	5.9 U	7.1 UJ	7.5 U	7.0 U	9.9 U	**5.3 J**	7.4 U	7.2 U	7.0 U	7.6 U	7.1 U	7.3 U	7.5 U	6.6 U	10 U	6.6 U
1,4-Dioxane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	**57 J**	**71 J**	**59 J**	**9.1 J**	**3.9 J**	**3.6 J**	**10 J**	**4.0 J**	**3.5 J**	**8.1 J**	**5.2 J**	**19 J**	**17 J**	**3.4 J**	**8.8 J**	**8.1 J**	**21 J**	**4.3 J**
2-Chloro-1,3-butadiene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	**110 J**	**140 J**	**59 J**	71 UJ	75 U	70 U	99 UJ	70 UJ	74 U	**72 J**	**70 J**	**76 J**	**71 J**	**73 J**	**75 J**	**66 J**	**100 J**	**66 J**
3-Chloro-1-propene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	110 U	140 U	59 U	71 UJ	75 U	70 U	99 U	70 U	74 U	72 U	70 U	76 U	71 U	73 U	75 U	66 U	**100 J**	66 U
Acetone	**230 J**	**290 J**	59 UJ	71 U	75 U	70 U	**100**	**48 J**	74 UJ	**30 J**	**18 J**	**79 J**	**75 J**	**12 J**	**33 J**	**30 J**	**99 J**	**15 J**
Acetonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	11 U	14 U	5.9 U	7.1 U	7.5 U	7.0 U	9.9 U	7.0 U	7.4 U	7.2 U	7.0 U	7.6 U	7.1 U	7.3 U	7.5 U	6.6 U	10 U	6.6 U
Bromodichloromethane	11 U	14 U	5.9 U	7.1 U	7.5 U	7.0 U	9.9 U	7.0 U	7.4 U	7.2 U	7.0 U	7.6 U	7.1 U	7.3 U	7.5 U	6.6 U	10 U	6.6 U
Bromoform	11 U	14 U	5.9 U	7.1 U	7.5 U	7.0 U	9.9 U	7.0 U	7.4 U	7.2 U	7.0 U	7.6 U	7.1 U	7.3 U	7.5 U	6.6 U	10 U	6.6 U
Bromomethane	11 U	14 U	5.9 U	7.1 U	7.5 U	7.0 U	9.9 U	7.0 U	7.4 U	7.2 U	7.0 U	7.6 U	7.1 U	7.3 U	7.5 U	6.6 U	10 U	6.6 U
Carbon disulfide	11 U	14 U	5.9 U	7.1 U	7.5 U	7.0 U	9.9 U	7.0 U	7.4 U	7.2 U	7.0 U	7.6 U	7.1 U	7.3 U	7.5 U	6.6 U	10 U	6.6 U
Carbon tetrachloride	11 U	14 U	5.9 U	7.1 U	7.5 U	7.0 U	9.9 U	7.0 U	7.4 U	7.2 U	7.0 U	7.6 U	7.1 U	7.3 U	7.5 U	6.6 U	10 U	6.6 U
Chlorobenzene	11 U	14 U	5.9 U	7.1 UJ	7.5 U	7.0 U	9.9 U	7.0 U	7.4 U	7.2 U	7.0 U	7.6 U	7.1 U	7.3 U	7.5 U	**2.7 J**	10 U	6.6 U
Chlorodibromomethane	11 U	14 U	5.9 U	7.1 U	7.5 U	7.0 U	9.9 U	7.0 U	7.4 U	7.2 U	7.0 U	7.6 U	7.1 U	7.3 U	7.5 U	6.6 U	10 U	6.6 U
Chloroethane	11 U	14 U	5.9 U	7.1 U	7.5 U	7.0 U	9.9 U	7.0 U	7.4 U	7.2 U	7.0 U	7.6 U	7.1 U	7.3 U	7.5 U	6.6 U	10 U	6.6 U
Chloroform	11 U	14 U	5.9 U	7.1 U	7.5 U	7.0 U	9.9 U	7.0 U	7.4 U	7.2 U	7.0 U	7.6 U	7.1 U	7.3 U	7.5 U	6.6 U	10 U	6.6 U
Chloromethane	11 U	14 U	5.9 U	7.1 U	7.5 U	7.0 U	9.9 U	7.0 U	7.4 U	7.2 U	7.0 U	7.6 U	7.1 U	7.3 U	7.5 U	6.6 U	**5.8 J**	6.6 U
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	11 U	14 U	5.9 U	7.1 U	7.5 U	7.0 U	9.9 U	7.0 U	7.4 U	7.2 U	7.0 U	7.6 U	7.1 U	7.3 U	7.5 U	6.6 U	10 U	6.6 U
Dibromomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	11 U	14 U	5.9 U	7.1 UJ	7.5 U	7.0 U	9.9 U	7.0 U	7.4 U	7.2 U	7.0 U	7.6 U	7.1 U	7.3 U	7.5 U	6.6 U	10 U	6.6 U
Iodomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isobutyl alcohol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-8
SEDIMENT ANALYTICAL DATA
ORGANIC COMPOUNDS SEDIMENT ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

	SD-33			SD-34			SD-35			SD-36			SD-37				SD-38	
	(0 - 1.3') 6/19/95	(1.3 - 2.6') 6/19/95	(2.6 - 3.9') 6/19/95	(0 - 1.3') 6/21/95	(1.3 - 2.6') 6/21/95	(2.6 - 3.9') 6/21/95	(0 - 1.5') 6/21/95	(1.5 - 3') 6/21/95	(3 - 4.5') 6/21/95	(0 - 1.2') 6/19/95	(1.2 - 2.4') 6/19/95	(2.4 - 3.6') 6/19/95	(0 - 1.3') 6/19/95	(1.3 - 2.6') 6/19/95		(2.6 - 3.9') 6/19/95	(0 - 1.2') 6/19/95	(1.2 - 2.4') 6/19/95
Constituents (ug/kg)	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**DUP**	**FS**	**FS**	**FS**
VOCs (Cont'd.)																		
Methyl methacrylate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	52 U	34 U	6.0 U	7.1 U	7.0 U	7.0 U	9.9 U	7.0 U	7.0 U	42 U	75 U	100 U	74 U	63 U	88 U	81 U	28 U	28 U
Propionitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyridine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	11 U	14 U	5.9 U	7.1 UJ	7.5 U	7.0 U	9.9 U	7.0 U	7.4 U	7.2 U	7.0 U	7.6 U	7.1 U	7.3 U	7.5 U	6.6 U	10 U	6.6 U
Tetrachloroethene	11 U	14 U	5.9 U	7.1 UJ	7.5 U	7.0 U	9.9 U	7.0 U	7.4 U	7.2 U	7.0 U	7.6 U	7.1 U	7.3 U	7.5 U	6.6 U	10 U	6.6 U
Toluene	11 U	14 U	5.9 U	7.1 UJ	7.5 U	7.0 U	9.9 U	7.0 U	7.4 U	7.2 U	7.0 U	7.6 U	7.1 U	7.3 U	7.5 U	6.6 U	10 U	6.6 U
trans-1,2-Dichloroethene	11 U	14 U	5.9 U	7.1 U	7.5 U	7.0 U	9.9 U	7.0 U	7.4 U	7.2 U	7.0 U	7.6 U	7.1 U	7.3 U	7.5 U	6.6 U	10 U	6.6 U
trans-1,3-Dichloropropene	11 U	14 U	5.9 U	7.1 U	7.5 U	7.0 U	9.9 U	7.0 U	7.4 U	7.2 U	7.0 U	7.6 U	7.1 U	7.3 U	7.5 U	6.6 U	10 U	6.6 U
trans-1,4-Dichloro-2-butene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	11 U	14 U	5.9 U	7.1 U	7.5 U	7.0 U	9.9 U	7.0 U	7.4 U	7.2 U	7.0 U	7.6 U	7.1 U	7.3 U	7.5 U	6.6 U	10 U	6.6 U
Trichlorofluoromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	11 U	14 U	5.9 U	7.1 U	7.5 U	7.0 U	9.9 U	7.0 U	7.4 U	7.2 U	7.0 U	7.6 U	7.1 U	7.3 U	7.5 U	6.6 U	10 U	6.6 U
Xylenes, Total	11 U	14 U	5.9 U	7.1 UJ	7.5 U	7.0 U	9.9 U	7.0 U	7.4 U	7.2 U	7.0 U	7.6 U	7.1 U	7.3 U	7.5 U	6.6 U	10 U	6.6 U
SVOCs																		
1,2,4,5-Tetrachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	350 U	270 U	190 U	240 U	250 U	230 U	330 U	230 U	240 U	240 U	230 U	250 U	230 U	240 U	250 U	220 U	330 U	220 U
1,2-Dichlorobenzene	11 U	14 U	5.9 U	7.1 UJ	7.5 U	7.0 U	9.9 U	7.0 U	7.4 U	7.2 U	7.0 U	7.6 U	7.1 U	7.3 U	7.5 U	6.6 U	10 U	6.6 U
1,3,5-Trinitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	11 U	14 U	5.9 U	7.1 UJ	7.5 U	7.0 U	9.9 U	7.0 U	7.4 U	7.2 U	7.0 U	7.6 U	7.1 U	7.3 U	7.5 U	6.6 U	10 U	6.6 U
1,3-Dinitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	11 U	14 U	5.9 U	7.1 UJ	7.5 U	7.0 U	9.9 U	**5.3 J**	7.4 U	7.2 U	7.0 U	7.6 U	7.1 U	7.3 U	7.5 U	6.6 U	10 U	6.6 U
1,4-Naphthoquinone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(dichloropropane)	350 U	270 U	190 U	240 U	250 U	230 U	330 U	230 U	240 U	240 U	230 U	250 U	230 U	240 U	250 U	220 U	330 U	220 U
2,3,4,6-Tetrachlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	350 U	270 U	190 U	240 U	250 U	230 U	330 U	230 U	240 U	240 U	230 U	250 U	230 U	240 U	250 U	220 U	330 U	220 U
2,4,6-Trichlorophenol	350 U	270 U	190 U	240 U	250 U	230 U	330 U	230 U	240 U	240 U	230 U	250 U	230 U	240 U	250 U	220 U	330 U	220 U
2,4-Dichlorophenol	350 U	270 U	190 U	240 U	250 U	230 U	330 U	230 U	240 U	240 U	230 U	250 U	230 U	240 U	250 U	220 U	330 U	220 U
2,4-Dimethylphenol	350 U	270 U	190 U	240 U	250 U	230 U	330 U	230 U	240 U	240 U	230 U	250 U	230 U	240 U	250 U	220 U	330 U	220 U
2,4-Dinitrophenol	1,700 U	1,300 U	950 U	1,100 U	1,200 U	1,100 U	1,600 U	1,100 U	1,200 U	1,200 U	1,100 U	1,200 U	1,100 U	1,200 U	1,200 U	1,100 U	1,600 U	1,100 U
2,4-Dinitrotoluene	350 U	270 U	190 U	240 U	250 U	230 U	330 U	230 U	240 U	240 U	230 U	250 U	230 U	240 U	250 U	220 U	330 U	220 U
2,6-Dichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	350 U	270 U	190 U	240 U	250 U	230 U	330 U	230 U	240 U	240 U	230 U	250 U	230 U	240 U	250 U	220 U	330 U	220 U
2-Acetylaminofluorene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	350 U	270 U	190 U	240 U	250 U	230 U	330 U	230 U	240 U	240 U	230 U	250 U	230 U	240 U	250 U	220 U	330 U	220 U
2-Chlorophenol	350 U	270 U	190 U	240 U	250 U	230 U	330 U	230 U	240 U	240 U	230 U	250 U	230 U	240 U	250 U	220 U	330 U	220 U
2-Methylnaphthalene	**350**	**140 J**	190 U	**630**	**220 J**	230 U	**350**	**570**	**120 J**	240 U	230 U	250 U	230 U	240 U	250 U	220 U	330 U	220 U
2-Methylphenol	350 U	270 U	190 U	240 U	250 U	230 U	330 U	230 U	240 U	240 U	230 U	250 U	230 U	240 U	250 U	220 U	330 U	220 U
2-Methylphenol	350 U	270 U	190 U	240 U	250 U	230 U	330 U	230 U	240 U	240 U	230 U	250 U	230 U	240 U	250 U	220 U	330 U	220 U
2-Naphthylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	1,700 U	1,300 U	950 U	1,100 U	1,200 U	1,100 U	1,600 U	1,100 U	1,200 U	1,200 U	1,100 U	1,200 U	1,100 U	1,200 U	1,200 U	1,100 U	1,600 U	1,100 U
2-Nitrophenol	350 U	270 U	190 U	240 U	250 U	230 U	330 U	230 U	240 U	240 U	230 U	250 U	230 U	240 U	250 U	220 U	330 U	220 U

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TABLE A-8
SEDIMENT ANALYTICAL DATA
ORGANIC COMPOUNDS SEDIMENT ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

	SD-33			SD-34			SD-35			SD-36			SD-37				SD-38	
	(0 - 1.3') 6/19/95	(1.3 - 2.6') 6/19/95	(2.6 - 3.9') 6/19/95	(0 - 1.3') 6/21/95	(1.3 - 2.6') 6/21/95	(2.6 - 3.9') 6/21/95	(0 - 1.5') 6/21/95	(1.5 - 3') 6/21/95	(3 - 4.5') 6/21/95	(0 - 1.2') 6/19/95	(1.2 - 2.4') 6/19/95	(2.4 - 3.6') 6/19/95	(0 - 1.3') 6/19/95	(1.3 - 2.6') 6/19/95		(2.6 - 3.9') 6/19/95	(0 - 1.2') 6/19/95	(1.2 - 2.4') 6/19/95
Constituents (ug/kg)	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**DUP**	**FS**	**FS**	**FS**
SVOCs (Cont'd.)																		
2-Picoline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	700 U	540 U	390 U	470 U	490 U	460 U	660 U	460 U	490 U	480 U	460 U	500 U	470 U	480 U	490 U	440 U	660 U	440 U
3,3'-Dimethylbenzidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	1,700 U	1,300 U	950 U	1,100 U	1,200 U	1,100 U	1,600 U	1,100 U	1,200 U	1,200 U	1,100 U	1,200 U	1,100 U	1,200 U	1,200 U	1,100 U	1,600 U	1,100 U
4,6-Dinitro-2-methylphenol	1,700 U	1,300 U	950 U	1,100 U	1,200 U	1,100 U	1,600 U	1,100 U	1,200 U	1,200 U	1,100 U	1,200 U	1,100 U	1,200 U	1,200 U	1,100 U	1,600 U	1,100 U
4-Aminobiphenyl	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	350 U	270 U	190 U	240 U	250 U	230 U	330 U	230 U	240 U	240 U	230 U	250 U	230 U	240 U	250 U	220 U	330 U	220 U
4-Chloro-3-methylphenol	350 U	270 U	190 U	240 U	250 U	230 U	330 U	230 U	240 U	240 U	230 U	250 U	230 U	240 U	250 U	220 U	330 U	220 U
4-Chloroaniline	350 U	270 U	190 U	240 U	250 U	230 U	330 U	230 U	240 U	240 U	230 U	250 U	230 U	240 U	250 U	220 U	330 U	220 U
4-Chlorophenyl phenyl ether	350 U	270 U	190 U	240 U	250 U	230 U	330 U	230 U	240 U	240 U	230 U	250 U	230 U	240 U	250 U	220 U	330 U	220 U
4-Methylphenol	350 U	270 U	190 U	240 U	250 U	230 U	330 U	230 U	240 U	240 U	230 U	250 U	230 U	240 U	250 U	220 U	330 U	220 U
4-Nitroaniline	1,700 UJ	1,300 UJ	950 U	1,100 U	1,200 U	1,100 U	1,600 U	1,100 U	1,200 U	1,200 UJ	1,100 U	1,200 U	1,100 UJ	1,200 U	1,200 U	1,100 U	1,600 UJ	1,100 UJ
4-Nitrophenol	1,700 U	1,300 U	950 U	1,100 U	1,200 U	1,100 U	1,600 U	1,100 U	1,200 U	1,200 U	1,100 U	1,200 U	1,100 U	1,200 U	1,200 U	1,100 U	1,600 U	1,100 U
4-Nitroquinoline1-oxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	350 U	270 U	190 U	240 U	250 U	230 U	330 U	230 U	240 U	240 U	230 U	250 U	230 U	240 U	250 U	220 U	330 U	220 U
Acenaphthylene	350 U	270 U	190 U	240 U	250 U	230 U	330 U	230 U	240 U	240 U	230 U	250 U	230 U	240 U	250 U	220 U	330 U	220 U
Acetophenone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha,alpha-Dimethyl phenethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	350 U	270 U	190 U	**41 J**	250 U	230 U	330 U	**46 J**	240 U	**27 J**	230 U	250 U	230 U	240 U	250 U	220 U	**39 J**	220 U
Benzo(a)anthracene	**36 J**	**32 J**	190 U	**51 J**	250 U	230 U	330 U	**62 J**	240 U	**120 J**	230 U	250 U	230 U	240 U	250 U	220 U	**170 J**	**38 J**
Benzo(a)pyrene	350 U	**31 J**	190 U	**45 J**	**33 J**	230 U	330 U	**66 J**	240 U	**150 J**	230 U	250 U	230 U	240 U	250 U	220 U	**260 J**	**57 J**
Benzo(b)fluoranthene	**57 J**	**47 J**	190 U	**61 J**	**42 J**	230 U	330 U	**110 J**	240 U	**200 J**	230 U	250 U	230 U	240 U	250 U	220 U	**320 J**	**68 J**
Benzo(g,h,i)perylene	350 U	270 U	190 U	240 U	250 U	230 U	330 U	230 U	240 U	**56 J**	230 U	250 U	230 U	240 U	250 U	220 U	**110 J**	220 U
Benzo(k)fluoranthene	350 U	270 U	190 U	240 U	250 U	230 U	330 U	230 U	240 U	**96 J**	230 U	250 U	230 U	240 U	250 U	220 U	**160 J**	**32 J**
Benzyl alcohol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	350 U	270 U	190 U	240 U	250 U	230 U	330 U	230 U	240 U	240 U	230 U	250 U	230 U	240 U	250 U	220 U	330 U	220 U
bis(2-Chloroethyl)ether	350 U	270 U	190 U	240 U	250 U	230 U	330 U	230 U	240 U	240 U	230 U	250 U	230 U	240 U	250 U	220 U	330 U	220 U
bis(2-Ethylhexyl)phthalate	**120 J**	270 U	190 U	240 U	**38 J**	230 U	330 U	**140 J**	240 U	**52 J**	230 U	**140 J**	**99 J**	**64 J**	250 U	220 U	**140 J**	220 U
Butyl benzyl phthalate	350 U	270 U	190 U	240 U	250 U	230 U	330 U	230 U	240 U	240 U	230 U	250 U	230 U	240 U	250 U	220 U	330 U	220 U
Carbazole	350 U	270 U	190 U	240 U	250 U	230 U	330 U	230 U	240 U	240 U	230 U	250 U	230 U	240 U	250 U	220 U	330 U	220 U
Chrysene	**49 J**	**42 J**	190 U	**65 J**	**44 J**	230 U	330 U	**91 J**	240 U	**140 J**	230 U	250 U	230 U	240 U	250 U	220 U	**190 J**	**45 J**
Di-n-butyl phthalate	350 U	270 U	190 U	**52 J**	250 U	**25 J**	**55 J**	**94 J**	240 U	240 U	230 U	250 U	230 U	240 U	250 U	220 U	330 U	220 U
Di-n-octyl phthalate	350 U	270 U	190 U	240 U	250 U	230 U	330 U	**98 J**	240 U	240 U	230 U	250 U	230 U	240 U	250 U	220 U	330 U	220 U
Diallate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	350 U	270 U	190 U	240 U	250 U	230 U	330 U	230 U	240 U	240 U	230 U	250 U	230 U	240 U	250 U	220 U	330 U	220 U
Dibenzofuran	**71 J**	**35 J**	190 U	**130 J**	**48 J**	230 U	**80 J**	**110 J**	240 U	240 U	230 U	250 U	230 U	240 U	250 U	220 U	330 U	220 U
Diethyl phthalate	350 U	270 U	190 U	240 U	250 U	230 U	330 U	230 U	240 U	240 U	230 U	250 U	230 U	240 U	250 U	220 U	330 U	220 U
Dimethyl phthalate	350 U	270 U	190 U	240 U	250 U	230 U	330 U	230 U	240 U	240 U	230 U	250 U	230 U	240 U	250 U	220 U	330 U	220 U

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

	SD-33			SD-34			SD-35			SD-36			SD-37				SD-38	
	(0 - 1.3') 6/19/95	(1.3 - 2.6') 6/19/95	(2.6 - 3.9') 6/19/95	(0 - 1.3') 6/21/95	(1.3 - 2.6') 6/21/95	(2.6 - 3.9') 6/21/95	(0 - 1.5') 6/21/95	(1.5 - 3') 6/21/95	(3 - 4.5') 6/21/95	(0 - 1.2') 6/19/95	(1.2 - 2.4') 6/19/95	(2.4 - 3.6') 6/19/95	(0 - 1.3') 6/19/95	(1.3 - 2.6') 6/19/95		(2.6 - 3.9') 6/19/95	(0 - 1.2') 6/19/95	(1.2 - 2.4') 6/19/95
Constituents (ug/kg)	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**DUP**	**FS**	**FS**	**FS**
SVOCs (Cont'd.)																		
Diphenylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl methacrylate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl methanesulfonate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	**80 J**	**68 J**	190 U	**93 J**	**81 J**	230 U	**60 J**	**160 J**	240 U	**280**	230 U	250 U	230 U	240 U	250 U	220 U	**320 J**	**83 J**
Fluorene	**47 J**	270 U	190 U	240 U	250 U	230 U	330 U	230 U	240 U	240 U	230 U	250 U	230 U	240 U	250 U	220 U	330 U	220 U
Hexachlorobenzene	350 U	270 U	190 U	240 U	250 U	230 U	330 U	230 U	240 U	240 U	230 U	250 U	230 U	240 U	250 U	220 U	330 U	220 U
Hexachlorobutadiene	350 U	270 U	190 U	240 U	250 U	230 U	330 U	230 U	240 U	240 U	230 U	250 U	230 U	240 U	250 U	220 U	330 U	220 U
Hexachlorocyclopentadiene	350 U	270 U	190 U	240 U	250 U	230 U	330 U	230 U	240 U	240 U	230 U	250 U	230 U	240 U	250 U	220 U	330 U	220 U
Hexachloroethane	350 U	270 U	190 U	240 U	250 U	230 U	330 U	230 U	240 U	240 U	230 U	250 U	230 U	240 U	250 U	220 U	330 U	220 U
Hexachloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	350 U	270 U	190 U	240 U	250 U	230 U	330 U	230 U	240 U	**57 J**	230 U	250 U	230 U	240 U	250 U	220 U	**100 J**	**23 J**
Isophorone	350 U	270 U	190 U	240 U	250 U	230 U	330 U	**330**	**160 J**	240 U	230 U	250 U	230 U	240 U	250 U	220 U	330 U	220 U
Isosafrole, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl methanesulfonate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	350 U	270 U	190 U	240 U	250 U	230 U	330 U	230 U	240 U	240 U	230 U	250 U	230 U	240 U	250 U	220 U	330 U	220 U
N-Nitrosodi-n-butylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	350 U	270 U	190 U	240 U	250 U	230 U	330 U	230 U	240 U	240 U	230 U	250 U	230 U	240 U	250 U	220 U	330 U	220 U
N-Nitrosomethylethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	**240 J**	**110 J**	190 U	**520**	**170 J**	230 U	**260 J**	**480**	**88 J**	240 U	230 U	250 U	230 U	240 U	250 U	220 U	330 U	220 U
Nitrobenzene	350 U	270 U	190 U	240 U	250 U	230 U	330 U	230 U	240 U	240 U	230 U	250 U	230 U	240 U	250 U	220 U	330 U	220 U
o-Toluidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Chlorobenzilate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Phenylene diamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	1,700 U	1,300 U	950 U	1,100 U	1,200 U	1,100 U	1,600 U	1,100 U	1,200 U	1,200 U	1,100 U	1,200 U	1,100 U	1,200 U	1,200 U	1,100 U	1,600 U	1,100 U
Phenacetin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	**190 J**	**120 J**	190 U	**320**	**150 J**	230 U	**180 J**	**330**	**55 J**	**94 J**	230 U	250 U	230 U	240 U	250 U	220 U	**150 J**	**42 J**
Phenol	350 U	270 U	190 U	240 U	250 U	230 U	330 U	230 U	240 U	240 U	230 U	250 U	230 U	240 U	250 U	220 U	330 U	220 U
Pronamide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	**48 J**	**46 J**	190 U	**82 J**	**71 J**	230 U	**58 J**	**100 J**	240 U	**150 J**	230 U	250 U	**30 J**	240 U	250 U	220 U	**190 J**	**47 J**
Safrole, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetraethyl Dithiopyrophosphate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Constituents (ug/kg)	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**DUP**	**FS**	**FS**	**FS**
PCBs																		
Aroclor-1016	350 U	270 U	190 U	240 U	250 U	230 U	330 U	230 U	240 U	240 UJ	230 UJ	250 U	230 UJ	240 UJ	250 U	220 UJ	330 UJ	220 UJ
Aroclor-1221	350 U	270 U	190 U	240 U	250 U	230 U	330 U	230 U	240 U	240 UJ	230 UJ	250 U	230 UJ	240 UJ	250 U	220 UJ	330 UJ	220 UJ
Aroclor-1232	350 U	270 U	190 U	240 U	250 U	230 U	330 U	230 U	240 U	240 UJ	230 UJ	250 U	230 UJ	240 UJ	250 U	220 UJ	330 UJ	220 UJ
Aroclor-1242	350 U	270 U	190 U	240 U	250 U	230 U	330 U	230 U	240 U	240 UJ	230 UJ	250 U	230 UJ	240 UJ	250 U	220 UJ	330 UJ	220 UJ
Aroclor-1248	350 U	270 U	190 U	240 U	250 U	230 U	330 U	230 U	240 U	240 UJ	230 UJ	250 U	230 UJ	240 UJ	250 U	220 UJ	330 UJ	220 UJ
Aroclor-1254	350 U	270 U	190 U	240 U	250 U	230 U	330 U	**290**	240 U	240 UJ	230 UJ	250 U	230 UJ	240 UJ	250 U	220 UJ	330 UJ	220 UJ
Aroclor-1260	350 U	270 U	190 U	240 U	250 U	230 U	330 U	230 U	240 U	240 UJ	230 UJ	250 U	230 UJ	240 UJ	250 U	220 UJ	330 UJ	220 UJ
Total Aroclors	ND	ND	ND	ND	ND	ND	ND	**290**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pesticide/Herbicide																		
2,4,5-T	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP(Silvex)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-BHC (Lindane)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor epoxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dioxin/Furan																		
2,3,7,8-TCDD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HxCDDs, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HxCDFs, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PeCDDs, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PeCDFs, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCDDs, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCDFs, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD TEQ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-8
SEDIMENT ANALYTICAL DATA
ORGANIC COMPOUNDS SEDIMENT ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

	SD-39			SD-40		SD-41		SD-42		SD-43		SD-44		SD-45		SD-46		
	(0 - 1') 6/22/95	(1 - 2') 6/22/95		(0 - 1.1') 6/22/95	(1.1 - 2.2') 6/22/95	(0 - 1') 6/22/95	(1 - 2') 6/22/95	(0 - 1') 6/22/95	(1 - 2') 6/22/95	(0 - 0.8') 6/15/95	(0.8 - 1.6') 6/15/95	(0 - 0.9') 6/15/95	(0.9 - 1.8') 6/15/95	(0 - 0.7') 6/15/95	(0.7 - 1.4') 6/15/95	(0 - 1.5') 6/15/95	(1.5 - 3') 6/15/95	(3 - 4.5') 6/15/95
Constituents (ug/kg)	**FS**	**FS**	**DUP**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**
VOCs																		
1,1,1,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	6.1 U	5.4 U	6.2 U	8.9 U	6.8 U	6.9 UJ	6.0 U	5.2 U	6.4 U	7.1 U	5.9 U	10 U	7.9 U	6.9 U	6.6 U	9.6 U	7.4 U	6.7 U
1,1,2,2-Tetrachloroethane	6.1 U	5.4 U	6.2 U	8.9 U	6.8 U	R	6.0 U	5.2 U	6.4 U	7.1 UJ	5.9 U	10 U	7.9 U	6.9 U	6.6 U	9.6 UJ	7.4 UJ	6.7 UJ
1,1,2-Trichloroethane	6.1 U	5.4 U	6.2 U	8.9 U	6.8 U	6.9 UJ	6.0 U	5.2 U	6.4 U	7.1 U	5.9 U	10 U	7.9 U	6.9 U	6.6 U	9.6 U	7.4 U	6.7 U
1,1-Dichloroethane	6.1 U	5.4 U	6.2 U	8.9 U	6.8 U	6.9 UJ	6.0 U	5.2 U	6.4 U	7.1 U	5.9 U	10 U	7.9 U	6.9 U	6.6 U	9.6 U	7.4 U	6.7 U
1,1-Dichloroethene	6.1 U	5.4 U	6.2 U	8.9 U	6.8 U	6.9 UJ	6.0 U	5.2 U	6.4 U	7.1 U	5.9 U	10 U	7.9 U	6.9 U	6.6 U	9.6 U	7.4 U	6.7 U
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	6.1 U	5.4 U	6.2 U	8.9 U	6.8 U	6.9 U	6.0 U	5.2 U	6.4 U	7.1 U	5.9 U	10 U	7.9 U	6.9 U	6.6 U	9.6 U	7.4 U	6.7 U
1,2-Dichloroethane	6.1 U	5.4 U	6.2 U	8.9 U	6.8 U	6.9 UJ	6.0 U	5.2 U	6.4 U	7.1 U	5.9 U	10 U	7.9 U	6.9 U	6.6 U	9.6 U	7.4 U	6.7 U
1,2-Dichloroethene, Total	6.1 U	5.4 U	6.2 U	8.9 U	6.8 U	6.9 UJ	6.0 U	5.2 U	6.4 U	7.1 U	5.9 U	10 U	7.9 U	6.9 U	6.6 U	9.6 U	7.4 U	6.7 U
1,2-Dichloropropane	6.1 U	5.4 U	6.2 U	8.9 U	6.8 U	6.9 UJ	6.0 U	5.2 U	6.4 U	7.1 U	5.9 U	10 U	7.9 U	6.9 U	6.6 U	9.6 U	7.4 U	6.7 U
1,3-Dichlorobenzene	6.1 U	5.4 U	6.2 U	8.9 U	6.8 U	6.9 U	6.0 U	5.2 U	6.4 U	7.1 U	5.9 U	10 U	7.9 U	6.9 U	6.6 U	9.6 U	7.4 U	6.7 U
1,4-Dichlorobenzene	6.1 U	5.4 U	6.2 U	8.9 U	6.8 U	**4.1 J**	**2.8 J**	5.2 U	6.4 U	7.1 U	5.9 U	10 U	7.9 U	6.9 U	6.6 U	9.6 U	7.4 U	6.7 U
1,4-Dioxane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	61 UJ	54 UJ	62 UJ	**14 J**	13 UJ	**5.4 J**	60 UJ	52 UJ	64 UJ	71 UJ	59 UJ	**18 J**	**6.9 J**	**8.7 J**	**9.6 J**	**28 J**	**18 J**	**6.8 J**
2-Chloro-1,3-butadiene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	61 UJ	54 UJ	62 UJ	89 UJ	68 UJ	R	60 UJ	52 UJ	64 UJ	71 UJ	59 UJ	100 U	79 U	69 U	66 U	96 UJ	74 UJ	67 UJ
3-Chloro-1-propene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	61 U	54 U	62 UJ	89 UJ	68 U	69 UJ	60 UJ	52 UJ	64 UJ	71 UJ	59 UJ	100 U	79 U	69 U	66 U	96 UJ	74 UJ	67 UJ
Acetone	**3.0 J**	**4.1 J**	**8.9 J**	**58 J**	**65 J**	**75 J**	**11 J**	52 UJ	**4.4 J**	**86 J**	**10 J**	**80 J**	**32 J**	**70 J**	**67 J**	**180 J**	**82 J**	**29 J**
Acetonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	6.1 U	5.4 U	6.2 U	8.9 U	6.8 U	6.9 UJ	6.0 U	5.2 U	6.4 U	7.1 U	5.9 U	**6.3 J**	7.9 U	6.9 U	6.6 U	9.6 U	7.4 U	6.7 U
Bromodichloromethane	6.1 U	5.4 U	6.2 U	8.9 U	6.8 U	6.9 UJ	6.0 U	5.2 U	6.4 U	7.1 U	5.9 U	10 U	7.9 U	6.9 U	6.6 U	9.6 U	7.4 U	6.7 U
Bromoform	6.1 U	5.4 U	6.2 U	8.9 U	6.8 U	6.9 UJ	6.0 U	5.2 U	6.4 U	7.1 U	5.9 U	10 U	7.9 U	6.9 U	6.6 U	9.6 U	7.4 U	6.7 U
Bromomethane	6.1 U	5.4 U	6.2 U	8.9 U	6.8 U	6.9 UJ	6.0 U	5.2 U	6.4 U	7.1 UJ	5.9 U	10 U	7.9 U	6.9 U	6.6 U	9.6 UJ	7.4 U	6.7 U
Carbon disulfide	6.1 U	5.4 U	6.2 U	8.9 U	6.8 U	6.9 UJ	6.0 U	5.2 U	6.4 U	7.1 U	5.9 U	10 U	7.9 U	6.9 U	6.6 U	9.6 U	7.4 U	6.7 U
Carbon tetrachloride	6.1 U	5.4 U	6.2 U	8.9 U	6.8 U	6.9 UJ	6.0 U	5.2 U	6.4 U	7.1 U	5.9 U	10 U	7.9 U	6.9 U	6.6 U	9.6 U	7.4 U	6.7 U
Chlorobenzene	6.1 U	5.4 U	6.2 U	8.9 U	6.8 U	R	6.0 U	5.2 U	6.4 U	7.1 U	5.9 U	10 U	7.9 U	6.9 U	6.6 U	9.6 U	7.4 U	6.7 U
Chlorodibromomethane	6.1 U	5.4 U	6.2 U	8.9 U	6.8 U	6.9 UJ	6.0 U	5.2 U	6.4 U	7.1 U	5.9 U	10 U	7.9 U	6.9 U	6.6 U	9.6 U	7.4 U	6.7 U
Chloroethane	6.1 U	5.4 U	6.2 U	8.9 U	6.8 U	6.9 UJ	6.0 U	5.2 U	6.4 U	7.1 UJ	5.9 U	10 UJ	7.9 UJ	6.9 UJ	6.6 UJ	9.6 UJ	7.4 U	6.7 UJ
Chloroform	6.1 U	5.4 U	6.2 U	8.9 U	6.8 U	6.9 UJ	6.0 U	5.2 U	6.4 U	7.1 U	5.9 U	10 U	7.9 U	6.9 U	6.6 U	9.6 U	7.4 U	6.7 U
Chloromethane	6.1 U	5.4 U	6.2 U	8.9 U	6.8 U	6.9 UJ	6.0 U	5.2 U	6.4 U	7.1 UJ	5.9 U	10 U	7.9 U	6.9 U	6.6 U	9.6 U	7.4 U	6.7 U
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	6.1 U	5.4 U	6.2 U	8.9 U	6.8 U	6.9 UJ	6.0 U	5.2 U	6.4 U	7.1 U	5.9 U	10 U	7.9 U	6.9 U	6.6 U	9.6 U	7.4 U	6.7 U
Dibromomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	6.1 U	5.4 U	6.2 U	8.9 U	6.8 U	R	6.0 U	5.2 U	6.4 U	7.1 U	5.9 U	10 U	7.9 U	6.9 U	6.6 U	9.6 U	7.4 U	6.7 U
Iodomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isobutyl alcohol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-8
SEDIMENT ANALYTICAL DATA
ORGANIC COMPOUNDS SEDIMENT ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

	SD-39			SD-40		SD-41		SD-42		SD-43		SD-44		SD-45		SD-46		
	(0 - 1') 6/22/95	(1 - 2') 6/22/95		(0 - 1.1') 6/22/95	(1.1 - 2.2') 6/22/95	(0 - 1') 6/22/95	(1 - 2') 6/22/95	(0 - 1') 6/22/95	(1 - 2') 6/22/95	(0 - 0.8') 6/15/95	(0.8 - 1.6') 6/15/95	(0 - 0.9') 6/15/95	(0.9 - 1.8') 6/15/95	(0 - 0.7') 6/15/95	(0.7 - 1.4') 6/15/95	(0 - 1.5') 6/15/95	(1.5 - 3') 6/15/95	(3 - 4.5') 6/15/95
Constituents (ug/kg)	**FS**	**FS**	**DUP**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**
VOCs (Cont'd.)																		
Methyl methacrylate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	6.1 U	5.4 U	5.7 U	8.9 U	7.0 U	6.9 UJ	6.0 U	5.2 U	6.4 U	74 U	14 U	84 U	36 U	42 U	16 U	53 U	97 U	260 U
Propionitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyridine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	6.1 U	5.4 U	6.2 U	8.9 U	6.8 U	R	6.0 U	5.2 U	6.4 U	7.1 U	5.9 U	10 U	7.9 U	6.9 U	6.6 U	9.6 U	7.4 U	6.7 U
Tetrachloroethene	6.1 U	5.4 U	6.2 U	8.9 U	6.8 U	R	6.0 U	5.2 U	6.4 U	7.1 U	5.9 U	10 U	7.9 U	6.9 U	6.6 U	9.6 U	7.4 U	6.7 U
Toluene	6.1 U	5.4 U	6.2 U	8.9 U	6.8 U	**19 J**	6.0 U	5.2 U	**2.9 J**	7.1 U	5.9 U	10 U	7.9 U	6.9 U	6.6 U	9.6 U	7.4 U	6.7 U
trans-1,2-Dichloroethene	6.1 U	5.4 U	6.2 U	8.9 U	6.8 U	6.9 UJ	6.0 U	5.2 U	6.4 U	7.1 U	5.9 U	10 U	7.9 U	6.9 U	6.6 U	9.6 U	7.4 U	6.7 U
trans-1,3-Dichloropropene	6.1 U	5.4 U	6.2 U	8.9 U	6.8 U	6.9 UJ	6.0 U	5.2 U	6.4 U	7.1 U	5.9 U	10 U	7.9 U	6.9 U	6.6 U	9.6 U	7.4 U	6.7 U
trans-1,4-Dichloro-2-butene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	6.1 U	5.4 U	6.2 U	8.9 U	6.8 U	6.9 UJ	6.0 U	5.2 U	6.4 U	7.1 U	5.9 U	10 U	7.9 U	6.9 U	6.6 U	9.6 U	7.4 U	6.7 U
Trichlorofluoromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	6.1 U	5.4 U	6.2 U	8.9 U	6.8 U	6.9 UJ	6.0 U	5.2 U	6.4 U	7.1 U	5.9 U	10 U	7.9 U	6.9 U	6.6 U	9.6 U	7.4 U	6.7 U
Xylenes, Total	6.1 U	5.4 U	6.2 U	8.9 U	6.8 U	R	6.0 U	5.2 U	6.4 U	7.1 U	5.9 U	10 U	7.9 U	6.9 U	6.6 U	9.6 U	7.4 U	6.7 U
SVOCs																		
1,2,4,5-Tetrachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	200 U	180 U	200 U	290 U	230 U	450 U	200 U	170 U	210 U	230 U	200 U	660 U	260 U	230 U	220 U	320 U	250 U	220 U
1,2-Dichlorobenzene	6.1 U	5.4 U	6.2 U	8.9 U	6.8 U	6.9 U	6.0 U	5.2 U	6.4 U	7.1 U	5.9 U	10 U	7.9 U	6.9 U	6.6 U	9.6 U	7.4 U	6.7 U
1,3,5-Trinitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	6.1 U	5.4 U	6.2 U	8.9 U	6.8 U	6.9 U	6.0 U	5.2 U	6.4 U	7.1 U	5.9 U	10 U	7.9 U	6.9 U	6.6 U	9.6 U	7.4 U	6.7 U
1,3-Dinitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	6.1 U	5.4 U	6.2 U	8.9 U	6.8 U	**4.1 J**	**2.8 J**	5.2 U	6.4 U	7.1 U	5.9 U	10 U	7.9 U	6.9 U	6.6 U	9.6 U	7.4 U	6.7 U
1,4-Naphthoquinone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(dichloropropane)	200 UJ	180 U	200 UJ	290 U	230 UJ	450 U	200 U	170 UJ	210 UJ	230 U	200 U	660 U	260 U	230 U	220 U	320 U	250 U	220 U
2,3,4,6-Tetrachlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	200 U	180 U	200 U	290 U	230 U	450 U	200 U	170 U	210 U	230 U	200 U	660 U	260 U	230 U	220 U	320 U	250 U	220 U
2,4,6-Trichlorophenol	200 U	180 U	200 U	290 U	230 U	450 U	200 U	170 U	210 U	230 U	200 U	660 U	260 U	230 U	220 U	320 U	250 U	220 U
2,4-Dichlorophenol	200 U	180 U	200 U	290 U	230 U	450 U	200 U	170 U	210 U	230 U	200 U	660 U	260 U	230 U	220 U	320 U	250 U	220 U
2,4-Dimethylphenol	200 U	180 U	200 U	290 U	230 U	450 U	**34 J**	170 U	**100 J**	**120 J**	200 U	**100 J**	260 U	230 U	220 U	**240 J**	250 U	220 U
2,4-Dinitrophenol	980 U	860 U	990 U	1,400 U	1,100 U	2,200 U	960 U	840 U	1,000 U	1,100 U	950 U	3,200 U	1,300 U	1,100 U	1,100 U	1,500 U	1,200 U	1,100 U
2,4-Dinitrotoluene	200 U	180 U	200 U	290 U	230 U	450 U	200 U	170 U	210 U	230 U	200 U	660 U	260 U	230 U	220 U	320 U	250 U	220 U
2,6-Dichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	200 U	180 U	200 U	290 U	230 U	450 U	200 U	170 U	210 U	230 U	200 U	660 U	260 U	230 U	220 U	320 U	250 U	220 U
2-Acetylaminofluorene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	200 U	180 U	200 U	290 U	230 U	450 U	200 U	170 U	210 U	230 U	200 U	660 U	260 U	230 U	220 U	320 U	250 U	220 U
2-Chlorophenol	200 U	180 U	200 U	290 U	230 U	450 U	200 U	170 U	210 U	230 U	200 U	660 U	260 U	230 U	220 U	320 U	250 U	220 U
2-Methylnaphthalene	200 U	180 U	200 U	**420**	**42 J**	**1,900**	**390**	**610**	**1,400**	**1,000**	**530**	**3,300**	**630**	230 U	220 U	**1,700**	250 U	220 U
2-Methylphenol	200 U	180 U	200 U	290 U	230 U	**91 J**	**42 J**	170 U	**110 J**	**100 J**	200 U	**150 J**	260 U	230 U	220 U	**200 J**	250 U	220 U
2-Methylphenol	200 U	180 U	200 U	290 U	230 U	**91 J**	**42 J**	170 U	**110 J**	**100 J**	200 U	**150 J**	260 U	230 U	220 U	**200 J**	250 U	220 U
2-Naphthylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	980 UJ	860 U	990 U	1,400 U	1,100 UJ	2,200 U	960 U	840 UJ	1,000 U	1,100 U	950 U	3,200 U	1,300 U	1,100 U	1,100 U	1,500 U	1,200 U	1,100 U
2-Nitrophenol	200 U	180 U	200 U	290 U	230 U	450 U	200 U	170 U	210 U	230 U	200 U	660 U	260 U	230 U	220 U	320 U	250 U	220 U

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GENERAL MOTORS CORPORATION
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SAGINAW, MICHIGAN

	SD-39			SD-40		SD-41		SD-42		SD-43		SD-44		SD-45		SD-46		
	(0 - 1') 6/22/95	(1 - 2') 6/22/95		(0 - 1.1') 6/22/95	(1.1 - 2.2') 6/22/95	(0 - 1') 6/22/95	(1 - 2') 6/22/95	(0 - 1') 6/22/95	(1 - 2') 6/22/95	(0 - 0.8') 6/15/95	(0.8 - 1.6') 6/15/95	(0 - 0.9') 6/15/95	(0.9 - 1.8') 6/15/95	(0 - 0.7') 6/15/95	(0.7 - 1.4') 6/15/95	(0 - 1.5') 6/15/95	(1.5 - 3') 6/15/95	(3 - 4.5') 6/15/95
Constituents (ug/kg)	**FS**	**FS**	**DUP**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**
SVOCs (Cont'd.)																		
2-Picoline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	400 U	350 U	410 U	590 U	450 U	900 U	400 U	350 U	420 U	470 U	390 U	1,300 U	520 U	450 U	430 U	630 U	490 U	440 U
3,3'-Dimethylbenzidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	980 U	860 U	990 U	1,400 U	1,100 U	2,200 U	960 U	840 U	1,000 U	1,100 U	950 U	3,200 U	1,300 U	1,100 U	1,100 U	1,500 U	1,200 U	1,100 U
4,6-Dinitro-2-methylphenol	980 U	860 U	990 UJ	1,400 U	1,100 U	2,200 U	960 U	840 U	1,000 U	1,100 U	950 U	3,200 U	1,300 U	1,100 U	1,100 U	1,500 U	1,200 U	1,100 U
4-Aminobiphenyl	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	200 U	180 U	200 U	290 U	230 U	450 U	200 U	170 U	210 U	230 U	200 U	660 U	260 U	230 U	220 U	320 U	250 U	220 U
4-Chloro-3-methylphenol	200 U	180 U	200 U	290 U	230 U	450 U	200 U	170 U	210 U	230 U	200 U	660 U	260 U	230 U	220 U	320 U	250 U	220 U
4-Chloroaniline	200 U	180 U	200 U	290 U	230 U	450 U	200 U	170 U	210 U	230 U	200 U	660 U	260 U	230 U	220 U	320 U	250 U	220 U
4-Chlorophenyl phenyl ether	200 U	180 U	200 U	290 U	230 U	450 U	200 U	170 U	210 U	230 U	200 U	660 U	260 U	230 U	220 U	320 U	250 U	220 U
4-Methylphenol	200 U	180 U	200 U	**80 J**	230 U	**310 J**	**69 J**	170 U	**110 J**	**120 J**	**38 J**	**140 J**	260 U	230 U	220 U	**220 J**	250 U	220 U
4-Nitroaniline	980 U	860 U	990 U	1,400 U	1,100 U	2,200 U	960 U	840 U	1,000 U	1,100 U	950 U	3,200 U	1,300 UJ	1,100 U	1,100 U	1,500 U	1,200 U	1,100 U
4-Nitrophenol	980 U	860 U	990 U	1,400 U	1,100 U	2,200 U	960 U	840 U	1,000 U	1,100 U	950 U	3,200 U	1,300 U	1,100 U	1,100 U	1,500 U	1,200 U	1,100 U
4-Nitroquinoline1-oxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	200 U	180 U	200 U	290 U	230 U	450 U	200 U	170 U	**45 J**	**41 J**	**32 J**	**87 J**	260 U	230 U	220 U	**68 J**	250 U	220 U
Acenaphthylene	200 U	180 U	200 U	290 U	230 U	450 U	200 U	170 U	210 U	230 U	200 U	660 U	260 U	230 U	220 U	320 U	250 U	220 U
Acetophenone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha,alpha-Dimethyl phenethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	200 U	180 U	200 U	290 U	230 U	**120 J**	**23 J**	**40 J**	**100 J**	**72 J**	**37 J**	**110 J**	**58 J**	230 U	220 U	**120 J**	250 U	220 U
Benzo(a)anthracene	200 U	180 U	200 U	**46 J**	230 U	**120 J**	**27 J**	**41 J**	**110 J**	**120 J**	**90 J**	**140 J**	**120 J**	230 U	220 U	**100 J**	250 U	220 U
Benzo(a)pyrene	200 U	180 U	200 U	**58 J**	230 U	**90 J**	**25 J**	**26 J**	**89 J**	**120 J**	**130 J**	**88 J**	**110 J**	230 U	220 U	**61 J**	250 U	220 U
Benzo(b)fluoranthene	200 U	180 U	200 U	**85 J**	230 U	**190 J**	**36 J**	**41 J**	**130 J**	**210 J**	**140 J**	**120 J**	**140 J**	230 U	220 U	**95 J**	250 U	220 U
Benzo(g,h,i)perylene	200 U	180 U	200 U	290 U	230 U	450 U	200 U	**23 J**	**54 J**	**42 J**	**60 J**	660 U	**59 J**	230 U	220 U	**36 J**	250 U	220 U
Benzo(k)fluoranthene	200 U	180 U	200 U	290 U	230 U	**50 J**	200 U	170 U	210 U	230 U	200 U	660 U	**55 J**	230 U	220 U	320 U	250 U	220 U
Benzyl alcohol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	200 U	180 U	200 U	290 U	230 U	450 U	200 U	170 U	210 U	230 U	200 U	660 U	260 U	230 U	220 U	320 U	250 U	220 U
bis(2-Chloroethyl)ether	200 U	180 U	200 U	290 U	230 U	450 U	200 U	170 U	210 U	230 U	200 U	660 U	260 U	230 U	220 U	320 U	250 U	220 U
bis(2-Ethylhexyl)phthalate	200 U	180 U	200 U	290 U	230 U	**140 J**	**110 J**	**32 J**	**57 J**	**230 J**	200 U	660 U	260 U	230 U	220 U	320 U	250 U	510 U
Butyl benzyl phthalate	200 U	180 U	200 U	290 U	230 U	450 U	200 U	170 U	210 U	230 U	200 U	**340 J**	**190 J**	230 U	220 U	320 U	250 U	**390**
Carbazole	200 U	180 U	200 U	290 U	230 U	450 U	200 U	170 U	**35 J**	230 U	200 U	660 U	260 U	230 U	220 U	320 U	250 U	220 U
Chrysene	200 U	180 U	200 U	**62 J**	230 U	**240 J**	**36 J**	**57 J**	**150 J**	**150 J**	**110 J**	**240 J**	**140 J**	230 U	220 U	**140 J**	250 U	220 U
Di-n-butyl phthalate	200 U	180 U	200 U	**130 J**	230 U	**83 J**	**98 J**	170 U	210 U	**82 J**	**110 J**	**6,900**	**4,100**	**1,800**	**1,000**	**460**	**500**	**3,500**
Di-n-octyl phthalate	200 U	180 U	200 U	290 U	230 U	450 U	**170 J**	170 U	**45 J**	**230**	**120 J**	660 U	260 U	230 U	220 U	320 U	250 U	220 U
Diallate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	200 U	180 U	200 U	290 U	230 U	450 U	200 U	170 U	210 U	230 U	200 U	660 U	260 U	230 U	220 U	320 U	250 U	220 U
Dibenzofuran	200 U	180 U	200 U	**44 J**	230 U	**350 J**	**71 J**	**100 J**	**290**	**200 J**	**56 J**	**330 J**	**82 J**	230 U	220 U	**260 J**	250 U	220 U
Diethyl phthalate	200 U	180 U	200 U	290 U	230 U	450 U	200 U	170 U	210 U	230 U	200 U	660 U	260 U	230 U	220 U	320 U	250 U	220 U
Dimethyl phthalate	200 U	180 U	200 U	290 U	230 U	450 U	200 U	170 U	210 U	230 U	200 U	660 U	260 U	230 U	220 U	320 U	250 U	220 U

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TABLE A-8
SEDIMENT ANALYTICAL DATA
ORGANIC COMPOUNDS SEDIMENT ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

	SD-39			SD-40		SD-41		SD-42		SD-43		SD-44		SD-45		SD-46		
	(0 - 1') 6/22/95	(1 - 2') 6/22/95		(0 - 1.1') 6/22/95	(1.1 - 2.2') 6/22/95	(0 - 1') 6/22/95	(1 - 2') 6/22/95	(0 - 1') 6/22/95	(1 - 2') 6/22/95	(0 - 0.8') 6/15/95	(0.8 - 1.6') 6/15/95	(0 - 0.9') 6/15/95	(0.9 - 1.8') 6/15/95	(0 - 0.7') 6/15/95	(0.7 - 1.4') 6/15/95	(0 - 1.5') 6/15/95	(1.5 - 3') 6/15/95	(3 - 4.5') 6/15/95
Constituents (ug/kg)	**FS**	**FS**	**DUP**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**
SVOCs (Cont'd.)																		
Diphenylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl methacrylate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl methanesulfonate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	200 U	180 U	200 U	**99 J**	230 U	**350 J**	**59 J**	**100 J**	**240**	**230**	**180 J**	**350 J**	**220 J**	230 U	220 U	**330**	250 U	220 U
Fluorene	200 U	180 U	200 U	290 U	230 U	**70 J**	**29 J**	170 U	**83 J**	**79 J**	**68 J**	**150 J**	**64 J**	230 U	220 U	**160 J**	250 U	220 U
Hexachlorobenzene	200 U	180 U	200 UJ	290 U	230 U	450 U	200 U	170 U	210 U	230 U	200 U	660 U	260 U	230 U	220 U	320 U	250 U	220 U
Hexachlorobutadiene	200 U	180 U	200 U	290 U	230 U	450 U	200 U	170 U	210 U	230 U	200 U	660 U	260 U	230 U	220 U	320 U	250 U	220 U
Hexachlorocyclopentadiene	200 U	180 U	200 U	290 U	230 U	450 U	200 U	170 U	210 U	230 U	200 U	660 U	260 U	230 U	220 U	320 U	250 U	220 U
Hexachloroethane	200 U	180 U	200 U	290 U	230 U	450 U	200 U	170 U	210 U	230 U	200 U	660 U	260 U	230 U	220 U	320 U	250 U	220 U
Hexachloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	200 U	180 U	200 U	290 U	230 U	450 U	200 U	170 U	**25 J**	**26 J**	**49 J**	660 U	**46 J**	230 U	220 U	320 U	250 U	220 U
Isophorone	200 U	180 U	200 U	290 U	230 U	450 U	200 U	170 U	**54 J**	**120 J**	**660**	660 U	**150 J**	230 U	220 U	320 U	250 U	220 U
Isosafrole, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl methanesulfonate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	200 UJ	180 U	200 U	290 U	230 UJ	450 U	200 U	170 UJ	210 U	230 U	200 U	660 U	260 U	230 U	220 U	320 U	250 U	220 U
N-Nitrosodi-n-butylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	200 U	180 U	200 U	290 U	230 U	450 U	200 U	170 U	210 U	230 U	200 U	660 U	260 U	230 U	220 U	320 U	250 U	220 U
N-Nitrosomethylethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	200 U	180 U	200 U	**320**	**30 J**	**1,400**	**320**	**450**	**1,100**	**870**	**560**	**2,300**	**380**	230 U	220 U	**1,400**	250 U	220 U
Nitrobenzene	200 U	180 U	200 U	290 U	230 U	450 U	200 U	170 U	210 U	230 U	200 U	660 U	260 U	230 U	220 U	320 U	250 U	220 U
o-Toluidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Chlorobenzilate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Phenylene diamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	980 U	860 U	990 U	1,400 U	1,100 U	2,200 U	960 U	840 U	1,000 U	1,100 U	950 U	3,200 U	1,300 U	1,100 U	1,100 U	1,500 U	1,200 U	1,100 U
Phenacetin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	200 U	180 U	200 U	**160 J**	**26 J**	**1,000**	**190 J**	**330**	**680**	**510**	**240**	**840**	**320**	230 U	220 U	**880**	250 U	220 U
Phenol	200 U	180 U	200 U	**220 J**	230 U	**260 J**	**130 J**	**99 J**	**170 J**	**190 J**	**120 J**	**910**	**120 J**	230 U	220 U	**210 J**	250 U	220 U
Pronamide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	200 U	180 U	200 U	**67 J**	230 U	**240 J**	**42 J**	**56 J**	**150 J**	**180 J**	**150 J**	**220 J**	**150 J**	230 U	220 U	**160 J**	250 U	220 U
Safrole, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetraethyl Dithiopyrophosphate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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ORGANIC COMPOUNDS SEDIMENT ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

	SD-39			SD-40		SD-41		SD-42		SD-43		SD-44		SD-45		SD-46		
	(0 - 1') 6/22/95	(1 - 2') 6/22/95		(0 - 1.1') 6/22/95	(1.1 - 2.2') 6/22/95	(0 - 1') 6/22/95	(1 - 2') 6/22/95	(0 - 1') 6/22/95	(1 - 2') 6/22/95	(0 - 0.8') 6/15/95	(0.8 - 1.6') 6/15/95	(0 - 0.9') 6/15/95	(0.9 - 1.8') 6/15/95	(0 - 0.7') 6/15/95	(0.7 - 1.4') 6/15/95	(0 - 1.5') 6/15/95	(1.5 - 3') 6/15/95	(3 - 4.5') 6/15/95
Constituents (ug/kg)	**FS**	**FS**	**DUP**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**
PCBs																		
Aroclor-1016	200 U	180 U	200 U	290 U	230 U	230 U	400 U	170 U	210 U	230 U	200 U	330 UJ	260 UJ	230 U	220 U	320 U	250 U	220 U
Aroclor-1221	200 U	180 U	200 U	290 U	230 U	230 U	400 U	170 U	210 U	230 U	200 U	330 UJ	260 UJ	230 U	220 U	320 U	250 U	220 U
Aroclor-1232	200 U	180 U	200 U	290 U	230 U	230 U	400 U	170 U	210 U	230 U	200 U	330 UJ	260 UJ	230 U	220 U	320 U	250 U	220 U
Aroclor-1242	200 U	180 U	200 U	290 U	230 U	230 U	400 U	170 U	210 U	230 U	200 U	330 UJ	260 UJ	230 U	220 U	320 U	250 U	220 U
Aroclor-1248	200 U	180 U	200 U	290 U	230 U	230 U	**860**	170 U	210 U	230 U	200 U	330 UJ	260 UJ	230 U	220 U	320 U	250 U	220 U
Aroclor-1254	200 U	180 U	200 U	290 U	230 U	230 U	**310 J**	170 U	210 U	**65 J**	200 U	**660 J**	**390 J**	230 U	220 U	320 U	250 U	220 U
Aroclor-1260	200 U	180 U	200 U	290 U	230 U	230 U	400 U	170 U	210 U	230 U	200 U	330 UJ	260 UJ	230 U	220 U	320 U	250 U	220 U
Total Aroclors	ND	ND	ND	ND	ND	ND	**1,170**	ND	ND	**65**	ND	**660**	**390**	ND	ND	ND	ND	ND
Pesticide/Herbicide																		
2,4,5-T	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP(Silvex)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-BHC (Lindane)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor epoxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dioxin/Furan																		
2,3,7,8-TCDD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HxCDDs, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HxCDFs, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PeCDDs, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PeCDFs, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCDDs, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCDFs, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD TEQ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-8
SEDIMENT ANALYTICAL DATA
ORGANIC COMPOUNDS SEDIMENT ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

	SD-47		SD-48		SD-59	SD-60	SD-61	SD-62		SD-64	SD-65
	(0 - 1.5') 6/15/95	(1.5 - 3') 6/15/95	(0 - 1.3') 6/15/95	(1.3 - 2.6') 6/15/95	(0 - 0.5') 8/10/00	(0 - 0.5') 8/10/00	(0 - 0.5') 8/10/00	(0 - 0.5') 8/10/00		(0 - 0.5') 8/10/00	(0 - 0.5') 8/10/00
Constituents (ug/kg)	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**DUP**	**FS**	**FS**
VOCs											
1,1,1,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	31 U	6.7 U	6.4 U	6.7 U	8.4 U	8.4 U	8.1 U	6.4 U	7.0 U	10 U	8.1 U
1,1,2,2-Tetrachloroethane	31 UJ	6.7 UJ	6.4 U	6.7 U	8.4 U	8.4 U	8.1 U	6.4 U	7.0 U	10 U	8.1 U
1,1,2-Trichloroethane	31 U	6.7 U	6.4 U	6.7 U	8.4 U	8.4 U	8.1 U	6.4 UJ	7.0 UJ	10 UJ	8.1 U
1,1-Dichloroethane	31 U	6.7 U	6.4 U	6.7 U	8.4 U	8.4 U	8.1 U	6.4 U	7.0 U	10 U	8.1 U
1,1-Dichloroethene	31 U	6.7 U	6.4 U	6.7 U	8.4 U	8.4 U	8.1 U	6.4 U	7.0 U	10 U	8.1 U
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	31 U	6.7 U	6.4 U	6.7 U	550 U	550 U	530 U	1,700 U	1,200 U	690 U	540 U
1,2-Dichloroethane	31 U	6.7 U	6.4 U	6.7 U	8.4 U	8.4 U	8.1 U	6.4 U	7.0 U	10 U	8.1 U
1,2-Dichloroethene, Total	31 U	6.7 U	6.4 U	6.7 U	8.4 U	8.4 U	8.1 U	6.4 U	7.0 U	10 U	8.1 U
1,2-Dichloropropane	31 U	6.7 U	6.4 U	6.7 U	8.4 U	8.4 U	8.1 U	6.4 U	7.0 U	10 U	8.1 U
1,3-Dichlorobenzene	31 U	6.7 U	6.4 U	6.7 U	550 U	550 U	530 U	1,700 U	1,200 U	690 U	540 U
1,4-Dichlorobenzene	31 U	6.7 U	6.4 U	6.7 U	550 U	550 U	530 U	1,700 U	1,200 U	690 U	540 U
1,4-Dioxane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	310 UJ	67 UJ	64 U	**6.7 J**	33 U	34 U	32 U	26 U	28 U	42 U	32 U
2-Chloro-1,3-butadiene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	310 UJ	67 UJ	64 U	67 U	33 U	34 U	32 U	26 UJ	28 UJ	42 UJ	32 U
3-Chloro-1-propene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	310 UJ	67 UJ	64 U	67 U	33 U	34 U	32 U	26 U	28 U	42 U	32 U
Acetone	**22 J**	**7.2 J**	**12 J**	**33 J**	33 U	**32 J**	**33 J**	**23 J**	**15 J**	**24 J**	32 U
Acetonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	31 U	6.7 U	6.4 U	6.7 U	8.4 U	8.4 U	8.1 U	6.4 U	7.0 U	10 U	8.1 U
Bromodichloromethane	31 U	6.7 U	6.4 U	6.7 U	8.4 U	8.4 U	8.1 U	6.4 U	7.0 U	10 U	8.1 U
Bromoform	31 U	6.7 U	6.4 U	6.7 U	8.4 U	8.4 U	8.1 U	6.4 UJ	7.0 UJ	10 UJ	8.1 U
Bromomethane	31 U	6.7 U	6.4 U	6.7 U	17 U	17 U	16 U	13 U	14 U	21 U	16 U
Carbon disulfide	31 U	6.7 U	6.4 U	6.7 U	8.4 U	8.4 U	8.1 U	6.4 U	7.0 U	10 U	8.1 U
Carbon tetrachloride	31 U	6.7 U	6.4 U	6.7 U	8.4 U	8.4 U	8.1 U	6.4 U	7.0 U	10 U	8.1 U
Chlorobenzene	31 U	6.7 U	6.4 U	6.7 U	8.4 U	**1.2 J**	8.1 U	6.4 UJ	7.0 UJ	10 UJ	8.1 U
Chlorodibromomethane	31 U	6.7 U	6.4 U	6.7 U	8.4 U	8.4 U	8.1 U	6.4 U	7.0 U	10 U	8.1 U
Chloroethane	31 U	6.7 U	6.4 UJ	6.7 UJ	17 U	17 U	16 U	13 U	14 U	21 U	16 U
Chloroform	31 U	6.7 U	6.4 U	6.7 U	8.4 U	8.4 U	8.1 U	6.4 U	7.0 U	10 U	8.1 U
Chloromethane	31 U	6.7 U	6.4 U	6.7 U	17 U	17 U	16 U	13 U	14 U	21 U	16 U
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	31 U	6.7 U	6.4 U	6.7 U	8.4 U	8.4 U	8.1 U	6.4 U	7.0 U	10 U	8.1 U
Dibromomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	31 U	6.7 U	6.4 U	6.7 U	8.4 U	8.4 U	8.1 U	6.4 UJ	7.0 UJ	10 UJ	8.1 U
Iodomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isobutyl alcohol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-8
SEDIMENT ANALYTICAL DATA
ORGANIC COMPOUNDS SEDIMENT ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

	SD-47		SD-48		SD-59	SD-60	SD-61	SD-62		SD-64	SD-65
	(0 - 1.5') 6/15/95	(1.5 - 3') 6/15/95	(0 - 1.3') 6/15/95	(1.3 - 2.6') 6/15/95	(0 - 0.5') 8/10/00	(0 - 0.5') 8/10/00	(0 - 0.5') 8/10/00	(0 - 0.5') 8/10/00		(0 - 0.5') 8/10/00	(0 - 0.5') 8/10/00
Constituents (ug/kg)	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**DUP**	**FS**	**FS**
VOCs (Cont'd.)											
Methyl methacrylate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	500 U	**15 B**	14 U	10 U	8.4 U	11 U	9.1 U	**120**	**52**	20 U	**23**
Propionitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyridine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	31 U	6.7 U	6.4 U	6.7 U	8.4 U	8.4 U	8.1 U	6.4 UJ	7.0 UJ	10 UJ	8.1 U
Tetrachloroethene	31 U	6.7 U	6.4 U	6.7 U	8.4 U	8.4 U	8.1 U	6.4 UJ	7.0 UJ	10 UJ	8.1 U
Toluene	31 U	6.7 U	6.4 U	6.7 U	8.4 U	8.4 U	8.1 U	6.4 UJ	7.0 UJ	10 UJ	8.1 U
trans-1,2-Dichloroethene	31 U	6.7 U	6.4 U	6.7 U	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	31 U	6.7 U	6.4 U	6.7 U	8.4 U	8.4 U	8.1 U	6.4 UJ	7.0 UJ	10 UJ	8.1 U
trans-1,4-Dichloro-2-butene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	31 U	6.7 U	6.4 U	6.7 U	8.4 U	8.4 U	8.1 U	6.4 U	7.0 U	10 U	8.1 U
Trichlorofluoromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	31 U	6.7 U	6.4 U	6.7 U	17 U	17 U	16 U	13 U	14 U	21 U	16 U
Xylenes, Total	31 U	6.7 U	6.4 U	6.7 U	8.4 U	8.4 U	8.1 U	6.4 UJ	7.0 UJ	10 UJ	8.1 U
SVOCs											
1,2,4,5-Tetrachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	210 U	220 U	210 U	220 U	550 U	550 U	530 U	1,700 U	1,200 U	690 U	540 U
1,2-Dichlorobenzene	31 U	6.7 U	6.4 U	6.7 U	550 U	550 U	530 U	1,700 U	1,200 U	690 U	540 U
1,3,5-Trinitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	31 U	6.7 U	6.4 U	6.7 U	550 U	550 U	530 U	1,700 U	1,200 U	690 U	540 U
1,3-Dinitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	31 U	6.7 U	6.4 U	6.7 U	550 U	550 U	530 U	1,700 U	1,200 U	690 U	540 U
1,4-Naphthoquinone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(dichloropropane)	210 U	220 U	210 U	220 U	550 U	550 U	530 U	1,700 U	1,200 U	690 U	540 U
2,3,4,6-Tetrachlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	210 U	220 U	210 U	220 U	550 U	550 U	530 U	1,700 U	1,200 U	690 U	540 U
2,4,6-Trichlorophenol	210 U	220 U	210 U	220 U	550 U	550 U	530 U	1,700 U	1,200 U	690 U	540 U
2,4-Dichlorophenol	210 U	220 U	210 U	220 U	550 U	550 U	530 U	1,700 U	1,200 U	690 U	540 U
2,4-Dimethylphenol	210 U	220 U	210 U	220 U	550 U	550 U	530 U	1,700 U	1,200 U	690 U	540 U
2,4-Dinitrophenol	1,000 U	1,100 U	1,000 U	1,100 U	2,700 UJ	2,700 UJ	2,600 UJ	8,200 UJ	5,600 UJ	3,300 UJ	2,600 UJ
2,4-Dinitrotoluene	210 U	220 U	210 U	220 U	550 U	550 U	530 U	1,700 U	1,200 U	690 U	540 U
2,6-Dichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	210 U	220 U	210 U	220 U	550 U	550 U	530 U	1,700 U	1,200 U	690 U	540 U
2-Acetylaminofluorene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	210 U	220 U	210 U	220 U	550 U	550 U	530 U	1,700 U	1,200 U	690 U	540 U
2-Chlorophenol	210 U	220 U	210 U	220 U	550 U	550 U	530 U	1,700 U	1,200 U	690 U	540 U
2-Methylnaphthalene	210 U	220 U	**85 J**	220 U	550 U	**320 J**	530 U	**200 J**	**150 J**	690 U	540 U
2-Methylphenol	210 U	220 U	210 U	220 U	550 U	550 U	530 U	1,700 U	1,200 U	690 U	540 U
2-Methylphenol	210 U	220 U	210 U	220 U	550 U	550 U	530 U	1,700 U	1,200 U	690 U	540 U
2-Naphthylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	1,000 U	1,100 U	1,000 U	1,100 U	2,700 U	2,700 U	2,600 U	8,200 U	5,600 U	3,300 U	2,600 U
2-Nitrophenol	210 U	220 U	210 U	220 U	550 U	550 U	530 U	1,700 U	1,200 U	690 U	540 U

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TABLE A-8
SEDIMENT ANALYTICAL DATA
ORGANIC COMPOUNDS SEDIMENT ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

	SD-47		SD-48		SD-59	SD-60	SD-61	SD-62		SD-64	SD-65
	(0 - 1.5') 6/15/95	(1.5 - 3') 6/15/95	(0 - 1.3') 6/15/95	(1.3 - 2.6') 6/15/95	(0 - 0.5') 8/10/00	(0 - 0.5') 8/10/00	(0 - 0.5') 8/10/00	(0 - 0.5') 8/10/00		(0 - 0.5') 8/10/00	(0 - 0.5') 8/10/00
Constituents (ug/kg)	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**DUP**	**FS**	**FS**
SVOCs (Cont'd.)											
2-Picoline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	410 U	440 U	420 U	440 U	2,700 U	2,700 U	2,600 U	8,200 U	5,600 U	3,300 U	2,600 U
3,3'-Dimethylbenzidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	1,000 U	1,100 U	1,000 U	1,100 U	2,700 U	2,700 U	2,600 U	8,200 U	5,600 U	3,300 U	2,600 U
4,6-Dinitro-2-methylphenol	1,000 U	1,100 U	1,000 U	1,100 U	2,700 U	2,700 U	2,600 U	8,200 U	5,600 U	3,300 U	2,600 U
4-Aminobiphenyl	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	210 U	220 U	210 U	220 U	550 U	550 U	530 U	1,700 U	1,200 U	690 U	540 U
4-Chloro-3-methylphenol	210 U	220 U	210 U	220 U	550 U	550 U	530 U	1,700 U	1,200 U	690 U	540 U
4-Chloroaniline	210 U	220 U	210 U	220 U	550 U	550 U	530 U	1,700 U	1,200 U	690 U	540 U
4-Chlorophenyl phenyl ether	210 U	220 U	210 U	220 U	550 U	550 U	530 U	1,700 U	1,200 U	690 U	540 U
4-Methylphenol	210 U	220 U	210 U	220 U	550 U	550 U	530 U	1,700 U	1,200 U	690 U	540 U
4-Nitroaniline	1,000 U	1,100 U	1,000 U	1,100 U	2,700 U	2,700 U	2,600 U	8,200 U	5,600 U	3,300 U	2,600 U
4-Nitrophenol	1,000 U	1,100 U	1,000 U	1,100 U	2,700 U	2,700 U	2,600 U	8,200 U	5,600 U	3,300 U	2,600 U
4-Nitroquinoline1-oxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	210 U	220 U	210 U	220 U	550 U	550 U	530 U	**450 J**	**350 J**	690 U	540 U
Acenaphthylene	210 U	220 U	210 U	220 U	550 U	550 U	530 U	1,700 U	1,200 U	690 U	540 U
Acetophenone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha,alpha-Dimethyl phenethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	210 U	220 U	210 U	220 U	550 U	550 U	530 U	**1,400 J**	**1,100 J**	690 U	**63 J**
Benzo(a)anthracene	210 U	220 U	**34 J**	220 U	550 U	550 U	530 U	**4,800**	**3,400**	690 U	**250 J**
Benzo(a)pyrene	210 U	220 U	**32 J**	220 U	550 U	550 U	530 U	**6,700**	**4,900**	690 U	**350 J**
Benzo(b)fluoranthene	210 U	220 U	**43 J**	220 U	550 U	550 U	530 U	**8,400**	**5,800**	690 U	**480 J**
Benzo(g,h,i)perylene	210 U	220 U	210 U	220 U	550 U	550 U	530 U	**3,800**	**2,700**	690 U	**240 J**
Benzo(k)fluoranthene	210 U	220 U	210 U	220 U	550 U	550 U	530 U	**2,900**	**2,500**	690 U	**150 J**
Benzyl alcohol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	210 U	220 U	210 U	220 U	550 U	550 U	530 U	1,700 U	1,200 U	690 U	540 U
bis(2-Chloroethyl)ether	210 U	220 U	210 U	220 U	550 U	550 U	530 U	1,700 U	1,200 U	690 U	540 U
bis(2-Ethylhexyl)phthalate	210 U	220 U	210 U	220 U	550 U	550 U	530 U	1,700 U	1,200 U	690 U	540 U
Butyl benzyl phthalate	210 U	220 U	210 U	220 U	550 U	550 U	530 U	1,700 U	1,200 U	690 U	540 U
Carbazole	210 U	220 U	210 U	220 U	550 U	550 U	530 U	**730 J**	**530 J**	690 U	540 U
Chrysene	210 U	220 U	**46 J**	220 U	550 U	550 U	530 U	**5,500**	**4,000**	690 U	**300 J**
Di-n-butyl phthalate	**3,700 D**	220 U	**3,200**	**3,500**	550 U	**790**	530 U	1,700 U	1,200 U	690 U	540 U
Di-n-octyl phthalate	210 U	220 U	210 U	220 U	550 U	550 U	530 U	1,700 U	1,200 U	690 U	540 U
Diallate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	210 U	220 U	210 U	220 U	550 U	550 U	530 U	**990 J**	**710 J**	690 U	540 U
Dibenzofuran	210 U	220 U	210 U	220 U	550 U	550 U	530 U	**330 J**	**260 J**	690 U	540 U
Diethyl phthalate	210 U	220 U	210 U	220 U	550 U	550 U	530 U	1,700 U	1,200 U	690 U	850 U
Dimethyl phthalate	210 U	220 U	210 U	220 U	550 U	550 U	530 U	1,700 U	1,200 U	690 U	540 U

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TABLE A-8
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ORGANIC COMPOUNDS SEDIMENT ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

	SD-47		SD-48		SD-59	SD-60	SD-61	SD-62		SD-64	SD-65
	(0 - 1.5') 6/15/95	(1.5 - 3') 6/15/95	(0 - 1.3') 6/15/95	(1.3 - 2.6') 6/15/95	(0 - 0.5') 8/10/00	(0 - 0.5') 8/10/00	(0 - 0.5') 8/10/00	(0 - 0.5') 8/10/00		(0 - 0.5') 8/10/00	(0 - 0.5') 8/10/00
Constituents (ug/kg)	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**DUP**	**FS**	**FS**
SVOCs (Cont'd.)											
Diphenylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl methacrylate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl methanesulfonate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	210 U	220 U	**86 J**	220 U	550 U	550 U	530 U	**9,200**	**6,900**	690 U	**510 J**
Fluorene	210 U	220 U	210 U	220 U	550 U	550 U	530 U	**350 J**	**240 J**	690 U	540 U
Hexachlorobenzene	210 U	220 U	210 U	220 U	550 U	550 U	530 U	1,700 U	1,200 U	690 U	540 U
Hexachlorobutadiene	210 U	220 U	210 U	220 U	550 U	550 U	530 U	1,700 U	1,200 U	690 U	540 U
Hexachlorocyclopentadiene	210 U	220 U	210 U	220 U	2,700 U	2,700 U	2,600 U	8,200 U	5,600 U	3,300 U	2,600 U
Hexachloroethane	210 U	220 U	210 U	220 U	550 U	550 U	530 U	1,700 U	1,200 U	690 U	540 U
Hexachloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	210 U	220 U	210 U	220 U	550 U	550 U	530 U	**3,900**	**2,700**	690 U	**230 J**
Isophorone	210 U	220 U	210 U	220 U	550 U	550 U	530 U	1,700 U	1,200 U	690 U	540 U
Isosafrole, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl methanesulfonate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	210 U	220 U	210 U	220 U	550 U	550 U	530 U	1,700 U	1,200 U	690 U	540 U
N-Nitrosodi-n-butylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	210 U	220 U	210 U	220 U	550 U	550 U	530 U	1,700 U	1,200 U	690 U	540 U
N-Nitrosomethylethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	210 U	220 U	210 U	220 U	550 U	**230 J**	530 U	**370 J**	**310 J**	690 U	540 U
Nitrobenzene	210 U	220 U	210 U	220 U	550 U	550 U	530 U	1,700 U	1,200 U	690 U	540 U
o-Toluidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Chlorobenzilate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Phenylene diamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	1,000 U	1,100 U	1,000 U	1,100 U	550 U	550 U	530 U	1,700 U	1,200 U	690 U	540 U
Phenacetin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	210 U	220 U	**81 J**	220 U	550 U	**180 J**	530 U	**5,600**	**4,400**	690 U	**250 J**
Phenol	210 U	220 U	210 U	220 U	550 U	**220 J**	530 U	1,700 U	1,200 U	690 U	540 U
Pronamide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	210 U	220 U	**55 J**	220 U	550 U	550 U	530 U	**7,800**	**5,800**	690 U	**420 J**
Safrole, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetraethyl Dithiopyrophosphate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE A-8
SEDIMENT ANALYTICAL DATA
ORGANIC COMPOUNDS SEDIMENT ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

	SD-47		SD-48		SD-59	SD-60	SD-61	SD-62		SD-64	SD-65
	(0 - 1.5') 6/15/95	(1.5 - 3') 6/15/95	(0 - 1.3') 6/15/95	(1.3 - 2.6') 6/15/95	(0 - 0.5') 8/10/00	(0 - 0.5') 8/10/00	(0 - 0.5') 8/10/00	(0 - 0.5') 8/10/00		(0 - 0.5') 8/10/00	(0 - 0.5') 8/10/00
Constituents (ug/kg)	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**FS**	**DUP**	**FS**	**FS**
PCBs											
Aroclor-1016	210 U	220 U	210 U	220 U	55 U	55 U	53 U	42 U	230 U	69 U	54 U
Aroclor-1221	210 U	220 U	210 U	220 U	55 U	55 U	53 U	42 U	230 U	69 U	54 U
Aroclor-1232	210 U	220 U	210 U	220 U	55 U	55 U	53 U	42 U	230 U	69 U	54 U
Aroclor-1242	210 U	220 U	210 U	220 U	55 U	55 U	53 U	42 U	230 U	69 U	54 U
Aroclor-1248	210 U	220 U	210 U	220 U	55 U	55 U	53 U	42 U	230 U	69 U	54 U
Aroclor-1254	210 U	220 U	210 U	220 U	55 U	**36 J**	53 U	**230**	**550**	69 U	54 U
Aroclor-1260	210 U	220 U	210 U	220 U	55 U	55 U	**17 J**	42 U	230 U	69 U	54 U
Total Aroclors	ND	ND	ND	ND	ND	**36**	**17**	**230**	**550**	ND	ND
Pesticide/Herbicide											
2,4,5-T	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TP(Silvex)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-BHC (Lindane)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor epoxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Kepone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dioxin/Furan											
2,3,7,8-TCDD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HxCDDs, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HxCDFs, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PeCDDs, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PeCDFs, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCDDs, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCDFs, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD TEQ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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General Notes:

All concentrations in micrograms per liter (ug/L) or milligrams per kilogram (mg/kg), unless otherwise noted.
Concentrations above criteria are shaded.
NA = Sample was not analyzed for the listed constituent.
Generic MDEQ Criteria Values, updated January 2006:
- IIA = Industrial & Commercial II, III, & IV Groundwater Volatilization to Indoor Air Inhalation Criteria.
- GCC = Groundwater Contact Criteria.
- GAI = Acute Inhalation Screening Levels.
- ISVIA = Soil Volatilization to Indoor Air Inhalation Criteria.
- VSIC = Infinite Source Volatile Soil Inhalation Criteria.
- IPSIC = Particulate Soil Inhalation Criteria.
- IDC = Industrial and Commercial II Direct Contact Criteria.
- WS = Water Solubility

Location ID:
- MW = Permanent monitoring wells
- TW = Temporary monitoring wells
- WT = Water table monitoring wells.

Sample Type:
- FS = Primary field sample.
- DUP = Duplicate field sample.

* Total criteria was used for cis-1-3-Dichloropropene and trans-1-3-Dichloropropene and for m&p xylene and o-xylene.

Data Qualifiers:

B = (Organic) The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect. (Inorganic) The analyte has been positively identified. The concentration is between the instrument detection limit and the required reporting limit.
D = Concentration is based on a diluted sample analysis.
E = The compound was quantitated above the calibration range.
J = The compound/constituent was positively identified; however, the associated numerical value is an estimated concentration only.
M = Matrix interference.
ND = Not detected.
U = The compound/constituent was analyzed for but not detected. The associated value is the compound/constituent quantitation limit.
UJ = The compound/constituent was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.
R = The sample results are rejected due to deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.
< = The compound/constituent was not detected at or above the associated value.

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MDEQ Criteria Qualifiers:

{A} Criterion is the state of Michigan drinking water standard established pursuant to Section 5 of 1976 PA 399, MCL 325.1005.
{B} Background, as defined in R 299.5701(b), may be substituted if higher than the calculated cleanup criterion. Background levels may be less than criteria for some inorganic compounds.
{C} Value presented is a screening level based on the chemical-specific generic soil saturation concentration (C_{sat}) since the calculated risk-based criterion is greater than Csat. Concentrations greater than Csat are acceptable cleanup criteria for this pathway where a site-specific demonstration indicates that free-phase material containing a hazardous substance is not present.
{D} Calculated criterion exceeds 100 percent, hence it is reduced to 100 percent or 1.0E+9 parts per billion (ppb).
{E} Criterion is the aesthetic drinking water value, as required by Section 20120a(5) of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA). A notice of aesthetic impact may be employed as an institutional control mechanism if groundwater concentrations exceed the aesthetic drinking water criterion, but do not exceed the applicable health-based drinking water value provided in the following table:

Hazardous Substance	CAS #	Residential Health-Based DWC	Industrial-Commercial Health-Based DWC
Aluminum	7429905	300	4,100
tertiary Amyl methyl ether	994058	910	2,600
Copper	7440508	1,400	4,000
Diethyl ether	60297	3,700	10,000
Ethylbenzene	100414	700	700
Iron	7439896	2,000	5,600
Manganese	7439965	860	2,500
Methyl-tert-butyl ether (MTBE)	1634044	240	690
Toluene	108883	1,000	1,000
1,2,4-Trimethylbenzene	95636	1,000	2,900
1,3,5-Trimethylbenzene	108678	1,000	2,900
Xylenes	1330207	10,000	10,000

{F} Criterion is based on adverse impacts to plant life and phytotoxicity.
{G} Groundwater surface water interface (GSI) criterion depends on the pH or water hardness, or both, of the receiving surface water. The final chronic value (FCV) for the protection of aquatic life shall be calculated based on the pH or hardness of the receiving surface water. Where water hardness exceeds 400 mg CaCO3/L, use 400 mg CaCO3/L for the FCV calculation. The FCV formula provides values in units of ug/L or ppb. The generic GSI criterion is the lesser of the calculated FCV, the wildlife value (WV), and the surface water human non-drinking water value (HNDV). The soil GSI protection criteria for these hazardous substances are the greater of the 20 times the GSI criterion or the GSI soil-water partition values using the GSI criteria developed with the procedure described in this footnote.

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MDEQ Criteria Qualifiers (Cont'd.):

Hazardous Substance	FCV Formula ug/L	FCV Conversion Factor (CF)	WV ug/L	HNDV ug/L
Acetate	EXP(0.2732*(pH) + 7.0362)	NA	NA	1.30E+06
Barium [X]	EXP(1.0629*(LnH)+1.1869)	NA	NA	1.60E+05
Beryllium	EXP(2.5279*(LnH)-10.7689)	NA	NA	1,200
Cadmium [X]	(EXP(0.7852*(LnH)-2.715))*CF	1.101672-((LnH)*(0.041838))	NA	130
Chromium (III) [X]	(EXP(0.819*(LnH)+0.6848))*CF	0.86	NA	9,400
Copper	(EXP(0.8545*(LnH)-1.702)) *CF	0.96	NA	64,000
Lead [X]	(EXP(1.273*(LnH)-3.296))*CF	1.46203-((LnH)*(0.14571))	NA	190
Manganese	EXP(0.8784*(LnH)+3.5199)	NA	NA	59,000
Nickel	(EXP(0.846*(LnH)+0.0584))*CF	0.997	NA	2.10E+05
Pentachlorophenol	EXP(1.005*(pH)-5.134)	NA	NA	2.8
Zinc	(EXP(0.8473*(LnH)+0.884))*CF	0.986	NA	22,000

Where,

EXP(x) = The base of the natural logarithm raised to power x (e^x).
LnH = The natural logarithm of water hardness in mg $CaCO_3$/L.
* = The multiplication symbol.
[X] = The GSI criterion developed here may not be protective for surface water that is used as a drinking water source. Refer to footnote (X) for further guidance.

A spreadsheet that may be used to calculate GSI and GSI protection criteria for (G)-footnoted hazardous substances is available on the Department of Environmental Quality (DEQ) internet web site.

{H} Valence-specific chromium data (Cr III and Cr VI) shall be compared to the corresponding valence-specific cleanup criteria. If both Cr III and Cr VI are present in groundwater, the total concentration of both cannot exceed the drinking water criterion of 100 ug/L. If analytical data are provided for total chromium only, they shall be compared to the cleanup criteria for Cr VI. Cr III soil cleanup criterion for protection of drinking water can only be used at sites where groundwater is prevented from being used as a public water supply, currently and in the future, through an approved land or resource use restriction.

{I} Hazardous substance may exhibit the characteristic of ignitability as defined in 40 C.F.R. §261.21 (revised as of July 1, 2001), which is adopted by reference in these rules and is available for inspection at the DEQ, 525 West Allegan Street, Lansing, Michigan. Copies of the regulation may be purchased, at a cost as of the time of adoption of these rules of $45, from the Superintendent of Documents, Government Printing Office, Washington, DC 20401 (stock number 869-044-00155-1), or from the DEQ, Remediation and Redevelopment Division (RRD), 525 West Allegan Street, Lansing, Michigan 48933, at cost.

{J} Hazardous substance may be present in several isomer forms. Isomer-specific concentrations shall be added together for comparison to criteria.

{K} Hazardous substance may be flammable or explosive, or both.

{L} Criteria for lead are derived using a biologically based model, as allowed for under Section 20120a(10) of the NREPA, and are not calculated using the algorithms and assumptions specified in pathway-specific rules. The generic residential drinking water criterion of 4 ug/L is linked to the generic residential soil direct contact criterion of 400 mg/kg. A higher concentration in the drinking water, up to the state action level of 15 ug/L, may be allowed as a site-specific remedy and still allow for drinking water use, under Section 20120a(2) of the NREPA if soil concentrations are appropriately lower than 400 mg/kg. If a site-specific criterion is approved based on this subdivision, a notice shall be filed on the deed for all property where the groundwater concentrations will exceed 4 ug/L to provide notice of the potential for unacceptable risk if soil or groundwater concentrations increase. Acceptable combinations of site-specific soil and drinking water concentrations are presented in the following table:

Drinking Water Concentration (ug/L)	Soil Concentration (mg/kg)
5	386-395
6	376-385
7	376-385
8	366-375
9	356-365
10	346-355
11	336-345
12	336-345
13	326-335
14	316-325
15	306-315

{M} Calculated criterion is below the analytical target detection limit, therefore, the criterion defaults to the target detection limit.

{N} The concentrations of all potential sources of nitrate-nitrogen (e.g., ammonia-N, nitrite-N, nitrate-N) in groundwater that is used as a source of drinking water shall not, when added together, exceed the nitrate drinking water criterion of 10,000 ug/L. Where leaching to groundwater is a relevant pathway, soil concentrations of all potential sources of nitrate-nitrogen shall not, when added together, exceed the nitrate drinking water protection criterion of 2.0E+5 ug/kg.

{O} The concentration of all polychlorinated and polybrominated dibenzodioxin and dibenzofuran isomers present at a facility, expressed as an equivalent concentration of 2,3,7,8-tetrachlorodibenzo-p-dioxin based upon their relative potency, shall be added together and compared to the criteria for 2,3,7,8-tetrachlorodibenzo-p-dioxin. The generic cleanup criteria for 2,3,7,8-tetrachlorodibenzo-p-dioxin are not calculated according to the algorithms presented in R 299.5714 to R 299.5726. The generic cleanup criteria are being held at the values that the DEQ has used since August 1998, in recognition of the fact that national efforts to reassess risks posed by dioxin are not yet complete. Until these studies are complete, it is premature to select a revised slope factor and/or reference dose for calculation of generic cleanup criteria.

{P} Amenable cyanide methods or method OIA-1677 shall be used to quantify cyanide concentrations for compliance with all groundwater criteria. Total cyanide methods or method OIA-1677 shall be used to quantify cyanide concentrations for compliance with soil criteria. Industrial-commercial direct contact criteria may not be protective of the potential for release of hydrogen cyanide gas. Additional land or resource use restrictions may be necessary to protect for the acute inhalation concerns associated with hydrogen cyanide gas.

{Q} Criteria for carcinogenic polycyclic aromatic hydrocarbons were developed using relative potential potencies to benzo(a)pyrene.

{R} Hazardous substance may exhibit the characteristic of reactivity as defined in 40 C.F.R. §261.23 (revised as of July 1, 2001), which is adopted by reference in these rules and is available for inspection at the DEQ, 525 West Allegan Street, Lansing, Michigan. Copies of the regulation may be purchased, at a cost as of the time of adoption of these rules of $45, from the Superintendent of Documents, Government Printing Office, Washington, DC 20401 (stock number 869-044-00155-1), or from the DEQ, RRD, 525 West Allegan Street, Lansing, Michigan 48933, at cost.

{S} Criterion defaults to the hazardous substance-specific water solubility limit.

{T} Refer to the federal Toxic Substances Control Act (TSCA), 40 C.F.R. §761, Subpart D and 40 C.F.R. §761, Subpart G, to determine the applicability of TSCA cleanup standards. Subpart D and Subpart G of 40 C.F.R. §761 (July 1, 2001) are adopted by reference in these rules and are available for inspection at the DEQ, 525 West Allegan Street, Lansing, Michigan. Copies of the regulations may be purchased, at a cost as of the time of adoption of these rules of $55, from the Superintendent of Documents, Government Printing Office, Washington, DC 20401, or from the DEQ, RRD, 525 West Allegan Street, Lansing, Michigan 48933, at cost. Alternatives to compliance with the TSCA standards listed below are possible under 40 C.F.R. §761 Subpart D. New releases may be subject to the standards identified in 40 C.F.R. §761, Subpart G. Use Part 201 soil direct contact cleanup criteria in the following table if TSCA standards are not applicable.

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MDEQ Criteria Qualifiers (Cont'd.):

Land Use Category	TSCA, Subpart D Cleanup Standards	Part 201 Soil Direct Contact Cleanup Criteria
Residential & Commercial I	1,000 ppb, or 10,000 ppb if capped	4,000 ppb
Industrial & Commercial II	1,000 ppb, or 10,000 ppb if capped	16,000 ppb
Commercial III	1,000 ppb, or 10,000 ppb if capped	33,000 ppb
Commercial IV	1,000 ppb, or 10,000 ppb if capped	22,000 ppb

{U} Hazardous substance may exhibit the characteristic of corrosivity as defined in 40 C.F.R. §261.22 (revised as of July 1, 2001), which is adopted by reference in these rules and is available for inspection at the DEQ, 525 West Allegan Street, Lansing, Michigan. Copies of the regulation may be purchased, at a cost as of the time of adoption of these rules of $45, from the Superintendent of Documents, Government Printing Office, Washington, DC 20401 (stock number 869-044-00155-1), or from the DEQ, RRD, 525 West Allegan Street, Lansing, Michigan 48933, at cost.

{V} Criterion is the aesthetic drinking water value as required by Section 20120(a)(5) of the NREPA. Concentrations up to 200 ug/L may be acceptable, and still allow for drinking water use, as part of a site-specific cleanup under Section 20120a(2) of the NREPA.

{W} Concentrations of trihalomethanes in groundwater shall be added together to determine compliance with the Michigan drinking water standard of 80 ug/L. Concentrations of trihalomethanes in soil shall be added together to determine compliance with the drinking water protection criterion of 1,600 ug/kg.

{X} The GSI criterion shown in the generic cleanup criteria tables is not protective for surface water that is used as a drinking water source. For a groundwater discharge to the Great Lakes and their connecting waters or discharge in close proximity to a water supply intake in inland surface waters, the generic GSI criterion shall be the surface water human drinking water value (HDV) listed in the table in this footnote, except for those HDV indicated with an asterisk. For HDV with an asterisk, the generic GSI criterion shall be the lowest of the HDV, the WV, and the calculated FCV. See formulas in footnote (G). Soil protection criteria based on the HDV shall be as listed in the table in this footnote, except for those values with an asterisk. Soil GSI protection criteria based on the HDV shall be as listed in the table in this footnote, except for those values with an asterisk. Soil GSI protection criteria for compounds with an asterisk shall be the greater of 20 times the GSI criterion or the GSI soil-water partition values using the GSI criteria developed with the procedure described in this footnote.

Hazardous Substance	Chemical Abstract Service Number	Surface Water Human Drinking Water Values (HDV) (ug/L)	Soil GSI Protection Criteria for HDV (ug/kg)
Acrylonitrile	107131	2.0 (M); 0.87	100 (M); 17
Alachlor	15972608	3.5	91
Antimony	7440360	2	1,400
Arsenic	7440382	50	23,000
Atrazine	1912249	4.3	86
Barium	7440393	1,900*	*
Benzene	71432	12	240
bis(2-Chloroethyl)ether	111444	1 (M); 0.79	100 (M); 20
Butyl benzyl phthalate	85687	6.9	13,000
Cadmium	7440439	2.5*	*
Carbon tetrachloride	56235	5.6	110
Chloride	16887006	50,000	1.00E+06
Chloroform	67663	77	1,500
Chromium (III)	16065831	120*	*
Cyanazine	21725462	2 (M); 0.93	200 (M); 40
3,3'-Dichlorobenzidine	91941	0.3 (M); 0.14	2,000 (M); 7.7
1,2-Dichloroethane	107062	6	120
1,1-Dichloroethylene	75354	24	480
1,2-Dichloropropane	78875	9.1	180
N,N-Dimethylacetamide	127195	700	14,000
1,4-Dioxane	123911	34	680
Ethylene dibromide	106934	0.05 (M); 0.006	20 (M); 1.0
Ethylene glycol	107211	56,000	1.10E+06
Heptachlor	76448	0.01 (M); 0.0017	NLL
beta-Hexachlorocyclohexane	319857	0.024	20 (M)
Hexachloroethane	67721	5.3	310
Isophorone	78591	310	6,200
Isopropyl alcohol	67630	28,000	5.60E+05
Lead	7439921	14*	*
Manganese	7439965	3600	72,000
Methyl-tert-butyl ether (MTBE)	1634044	100	2,000
Methylene chloride	75092	47	940
Mirex	2385855	0.02 (M); 1.6E-5	NLL
Molybdenum	7439987	120	2,400
Nitrobenzene	98953	4.7	330 (M); 94
Pentachlorophenol	87865	1.8*	*
1,2,4,5-Tetrachlorobenzene	95943	2.8	3,300
1,1,1,2-Tetrachloroethane	630206	19	380
1,1,2,2-Tetrachloroethane	79345	3.2	64
Tetrachloroethylene	127184	11	220
Tetrahydrofuran	109999	350	7,000
Thallium	7440280	2.0 (M); 1.2	2,300
1,1,2-Trichloroethane	79005	12	240
Trichloroethylene	79016	29	580

{Y} Source size modifiers shown in the following table shall be used to determine soil inhalation criteria for ambient air when the source size is not one-half acre. The modifier shall be multiplied by the generic soil inhalation criteria shown in the table of generic cleanup criteria to determine the applicable criterion.

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MDEQ Criteria Qualifiers (Cont'd.):

Source Size sq. feet or acres	Modifier
400 sq feet	3.17
1000 sq feet	2.2
2000 sq feet	1.76
1/4 acre	1.15
1/2 acre	1
1 acre	0.87
2 acre	0.77
5 acre	0.66
10 acre	0.6
32 acre	0.5
100 acre	0.43

{Z} Mercury is typically measured as total mercury. The generic cleanup criteria, however, are based on data for different species of mercury. Specifically, data for elemental mercury, chemical abstract service (CAS) number 7439976, serve as the basis for the soil volatilization to indoor air criteria, groundwater volatilization to indoor air, and soil inhalation criteria. Data for methyl mercury, CAS number 22967926, serve as the basis for the GSI criterion; and data for mercuric chloride, CAS number 7487947, serve as the basis for the drinking water, groundwater contact, soil direct contact, and the groundwater protection criteria. Comparison to criteria shall be based on species-specific analytical data only if sufficient facility characterization has been conducted to rule out the presence of other species of mercury.

{AA} Comparison to these criteria may take into account an evaluation of whether the hazardous substances are adsorbed to particulates rather than dissolved in water and whether filtered groundwater samples were used to evaluate groundwater.

{BB} The state drinking water standard for asbestos is in units of fibers per milliliter of water (f/mL) longer than 10 millimicrons. Soil concentrations of asbestos are determined by polarized light microscopy.

{CC} Groundwater: The generic GSI criteria are based on the toxicity of unionized ammonia (NH3); the criteria are 29 ug/L and 53 ug/L for cold water and warm water surface water, respectively. As a result, the GSI criterion shall be compared to the percent of the total ammonia concentration in the groundwater that will become NH3 in the surface water. This percent NH3 is a function of the pH and temperature of the receiving surface water and can be estimated using the following table, taken from Emerson, et al., (Journal of the Fisheries Research Board of Canada, Volume 32(12):2382, 1975).

Percent NH_3 in Aqueous Ammonia Solutions for 0-30 ^oC and pH 6-10

Temp (^oF)	Temp (^oC)	pH 6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10.0
32.0	0	0.00827	0.0261	0.0826	0.261	0.820	2.55	7.64	20.7	45.3
33.8	1	0.00899	0.0284	0.0898	0.284	0.891	2.77	8.25	22.1	47.3
35.6	2	0.00977	0.0309	0.0977	0.308	0.968	3.00	8.90	23.6	49.4
37.4	3	0.0106	0.0336	0.106	0.335	1.05	3.25	9.60	25.1	51.5
39.2	4	0.0115	0.0364	0.115	0.363	1.14	3.52	10.3	26.7	53.5
41.0	5	0.0125	0.0395	0.125	0.394	1.23	3.80	11.1	28.3	55.6
42.8	6	0.0136	0.0429	0.135	0.427	1.34	4.11	11.9	30.0	57.6
44.6	7	0.0147	0.0464	0.147	0.462	1.45	4.44	12.8	31.7	59.5
46.4	8	0.0159	0.0503	0.159	0.501	1.57	4.79	13.7	33.5	61.4
48.2	9	0.0172	0.0544	0.172	0.542	1.69	5.16	14.7	35.3	63.3
50.0	10	0.0186	0.0589	0.186	0.586	1.83	5.56	15.7	37.1	65.1
51.8	11	0.0201	0.0637	0.201	0.633	1.97	5.99	16.8	38.9	66.8
53.6	12	0.0218	0.0688	0.217	0.684	2.13	6.44	17.9	40.8	68.5
55.4	13	0.0235	0.0743	0.235	0.738	2.30	6.92	19.0	42.6	70.2
57.2	14	0.0254	0.0802	0.253	0.796	2.48	7.43	20.2	44.5	71.7
59.0	15	0.0274	0.0865	0.273	0.859	2.67	7.97	21.5	46.4	73.3
60.8	16	0.0295	0.0933	0.294	0.925	2.87	8.54	22.8	48.3	74.7
62.6	17	0.0318	0.101	0.317	0.996	3.08	9.14	24.1	50.2	76.1
64.4	18	0.0343	0.108	0.342	1.07	3.31	9.78	25.5	52.0	77.4
66.2	19	0.0369	0.117	0.368	1.15	3.56	10.5	27.0	53.9	78.7
68.0	20	0.0397	0.125	0.396	1.24	3.82	11.2	28.4	55.7	79.9
69.8	21	0.0427	0.135	0.425	1.33	4.10	11.9	29.9	57.5	81.0
71.6	22	0.0459	0.145	0.457	1.43	4.39	12.7	31.5	59.2	82.1
73.4	23	0.0493	0.156	0.491	1.54	4.70	13.5	33.0	60.9	83.2
75.2	24	0.0530	0.167	0.527	1.65	5.03	14.4	34.6	62.6	84.1
77.0	25	0.0569	0.180	0.566	1.77	5.38	15.3	36.3	64.3	85.1
78.8	26	0.0610	0.193	0.607	1.89	5.75	16.2	37.9	65.9	85.9
80.6	27	0.0654	0.207	0.651	2.03	6.15	17.2	39.6	67.4	86.8
82.4	28	0.0701	0.221	0.697	2.17	6.56	18.2	41.2	68.9	87.3
84.2	29	0.0752	0.237	0.747	2.32	7.00	19.2	42.9	70.4	88.3
86.0	30	0.0805	0.254	0.799	2.48	7.46	20.3	44.6	71.8	89.0

The generic approach for estimating NH3 assumes a default pH of 8 and default temperatures of 68 F and 85 F for cold water and warm water surface water, respectively. The resulting percent NH3 is 3.8 percent and 7.2 percent for cold water and warm water, respectively. This default percentage shall be multiplied by the total ammonia-nitrogen (NH3-N) concentration in the groundwater and the resulting NH3 concentration compared to the applicable GSI criterion. As an alternative, the maximum pH and temperature data from the specific receiving surface water can be used to estimate, from the table in this footnote, a lower percent unionized ammonia concentration for comparison to the generic GSI.

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MDEQ Criteria Qualifiers (Cont'd.):

Soil: The generic soil GSI protection criteria for unionized ammonia are 580 ug/kg and 1,100 ug/kg for cold water and warm water surface water, respectively.

{DD} Hazardous substance causes developmental effects. Residential and commercial I direct contact criteria are protective of both prenatal and postnatal exposure. Industrial and commercial II, III and IV direct contact criteria are protective for a pregnant adult receptor.

{EE} The following are applicable generic GSI criteria as required by Section 20120a(15) of the NREPA.

Hazardous Substance	GSI (ug/L)	Notes
Phosphorus	1,000	Criteria applicable unless receiving water is a surface water that has a phosphorus waste load allocation or is an inland lake. In those cases, contact the department for applicable values.
Total dissolved solids (TDS)	5.00E+05	If TDS data are not available, the TDS criterion may be used a screening level for the sum of the concentrations of the following substances: Calcium, Chlorides, Iron, Magnesium, Potassium, Sodium, Sulfate.
Dissolved Oxygen (DO): Cold receiving waters Warm receiving waters	 ≥ 7,000 ≥ 5,000	Since a low level of DO can be harmful to aquatic life, the criterion represents a minimum level that on-site samples must exceed. This is in contrast to other criteria which represent "not to exceed" concentrations. DO criteria are not applicable if groundwater Carbonaceous Biochemical Oxygen Demand (CBOD) is less than 10,000 ug/L and groundwater ammonia concentration is less than 2,000 ug/L.

{FF} The chloride GSI criterion shall be 125 mg/l when the discharge is to surface waters of the state designated as public water supply sources or 50 mg/l when the discharge is to the Great Lakes or connecting waters. Chloride GSI criteria shall not apply for surface waters of the state that are not designated as a public water supply source, however, the total dissolved solids criterion is applicable.

{GG} Risk-based criteria are not available for methane due to insufficient toxicity data. An acceptable soil gas concentration (presented for both residential and commercial/industrial land uses) was derived utilizing 25 percent of the lower explosive level for methane. This equates to 1.25 percent or 8.4E+6 ug/m3.

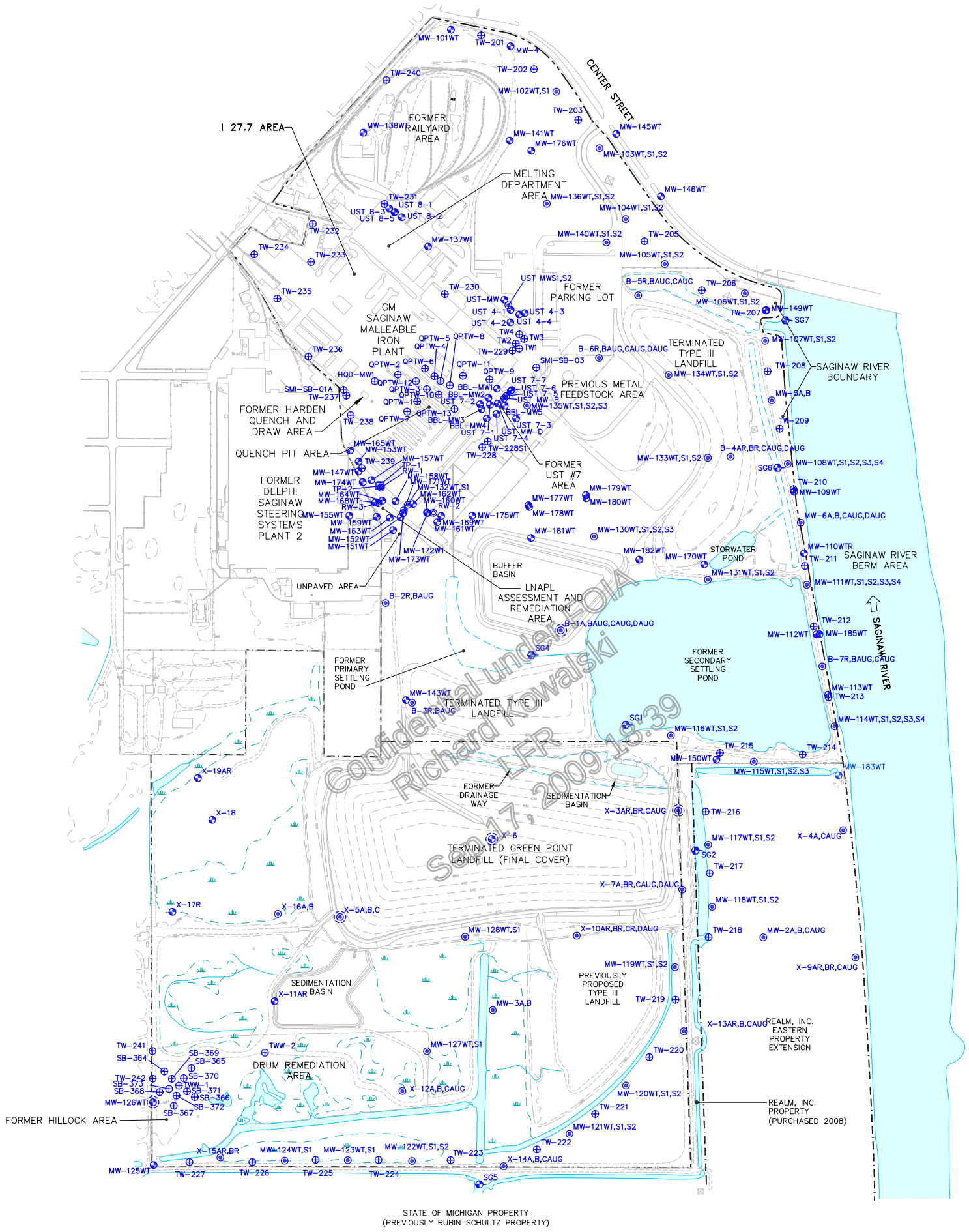
ID = Insufficient data to develop criterion.
NA = A criterion or value is not available or, in the case of background and CAS numbers, not applicable.
NLL = Hazardous substance is not likely to leach under most soil conditions.
NLV = Hazardous substance is not likely to volatilize under most conditions.

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NOTES:

1. THIS PHOTOGRAMMETRIC BASE MAP FOR THE GM SAGINAW MALLEABLE IRON PLANT AND DELPHI SAGINAW STEERING SYSTEMS PLANT 2 PROPERTIES WAS PREPARED BY LOCKWOOD MAPPING, INC. OF ROCHESTER, NEW YORK. AERIAL PHOTOGRAPHY WAS CONDUCTED ON 11/11/94. ORIGINAL LOCKWOOD MAP WAS AT A SCALE OF 1"=100' AND WAS INTERPRETED FOR TWO-FOOT CONTOURS.
2. BASE MAP HAS BEEN MODIFIED TO INCORPORATE BUFFER BASIN, SEDIMENTATION BASINS, WETLANDS MITIGATION AREA, AND GREEN POINT LANDFILL (GPL) FINAL COVER FROM THE FINAL ENGINEERING DESIGN REPORT PREPARED BY BBL FOR THE GPL, DATED JANUARY 1998.
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4. PROPERTY BOUNDARY FOR REALM, INC, DIGITIZED FROM SPICER GROUP DRAWING NO. A-21854-1, DATED 3/27/98.
5. BASE MAP INFORMATION SOUTH OF MAIN REALM, INC. PROPERTY LINE FROM AIR-LAND SURVEYS, INC. PHOTO DATE 11/90, MAPPING DATE 10/91.

LEGEND:

- GM SAGINAW MALLEABLE IRON PLANT PROPERTY LINE (APPROX.)
- REALM, INC. PROPERTY LINE (APPROX.)
- UNPAVED ROAD
- GROUND SURFACE ELEVATION CONTOUR (10 FT INTERVAL)
- FENCE LINE
- SWAMPY AREA
- MW-125WT — MONITORING WELL
- MW-2A,B,CAUG — MONITORING WELL CLUSTER
- TW-226 — TEMPORARY MONITORING WELL
- SG5 — STAFF GAUGE
- TP-1 — PIEZOMETER
- RW-1 — RECOVERY WELL
- X-6 — ABANDONED MONITORING WELL
- X-5A,B,C — ABANDONED MONITORING WELL CLUSTER

0 300' 600'
GRAPHIC SCALE

SAGINAW MALLEABLE IRON PLANT PROPERTY,
GREEN POINT LANDFILL, AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN
REMEDIAL ACTION PLAN

MONITORING WELL AND TEMPORARY WELL LOCATION MAP

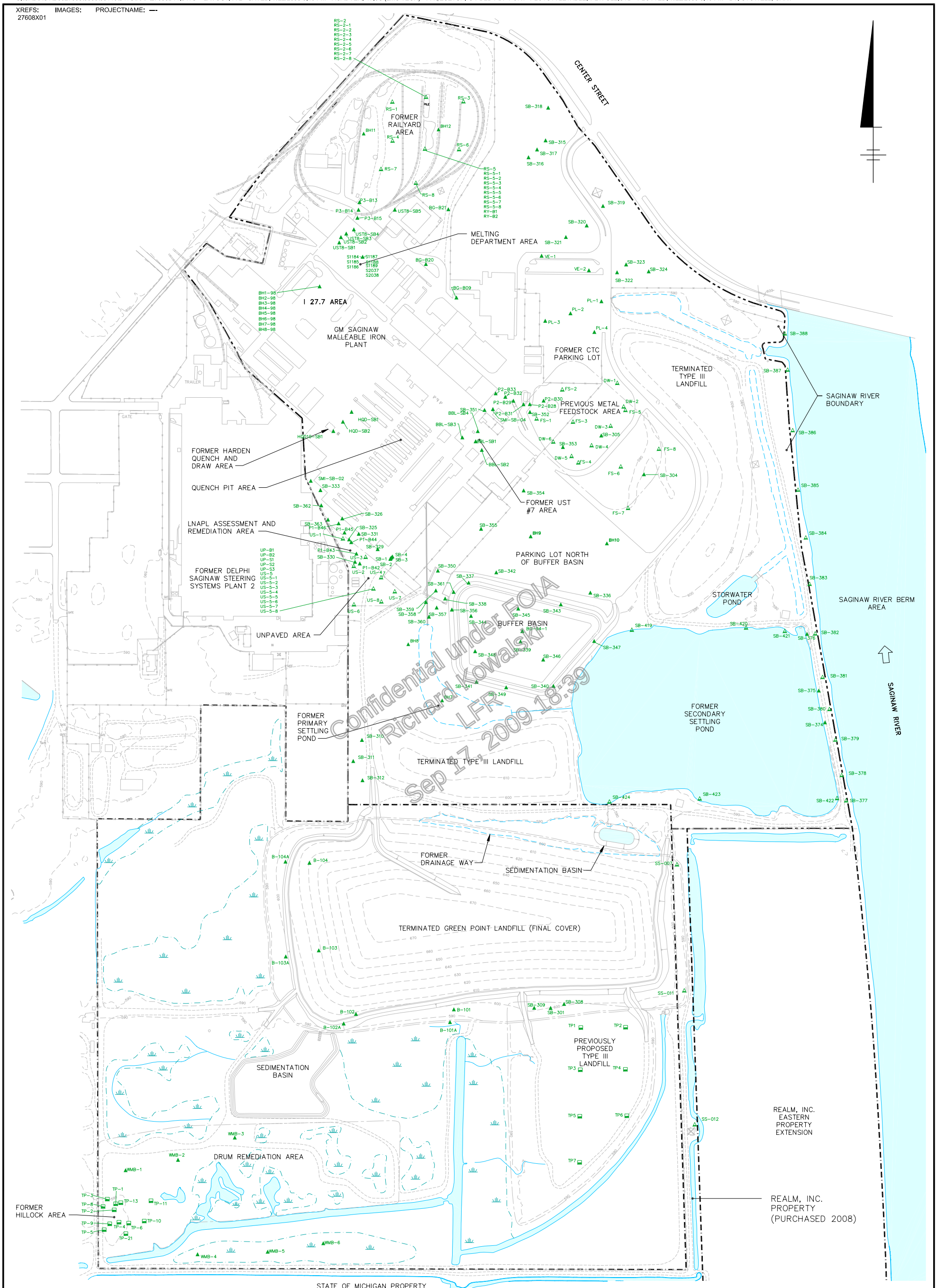
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FIGURE
A-1

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5. BASE MAP INFORMATION SOUTH OF MAIN REALM, INC. PROPERTY LINE FROM AIR-LAND SURVEYS, INC. PHOTO DATE 11/90, MAPPING DATE 10/91.

0 200' 400'
GRAPHIC SCALE

LEGEND:

- GM SAGINAW MALLEABLE IRON PLANT PROPERTY LINE (APPROX.)
- REALM, INC. PROPERTY LINE (APPROX.)
- UNPAVED ROAD
- GROUND SURFACE ELEVATION CONTOUR (10 FT INTERVAL)
- FENCE LINE
- SWAMPY AREA
- WMB-4 SOIL BORING
- SB-423 SURFACE SOIL SAMPLE
- TP-21 TEST PIT

SAGINAW MALLEABLE IRON PLANT PROPERTY,
GREEN POINT LANDFILL, AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN
REMEDIAL ACTION PLAN

SOIL BORING AND TEST PIT LOCATION MAP

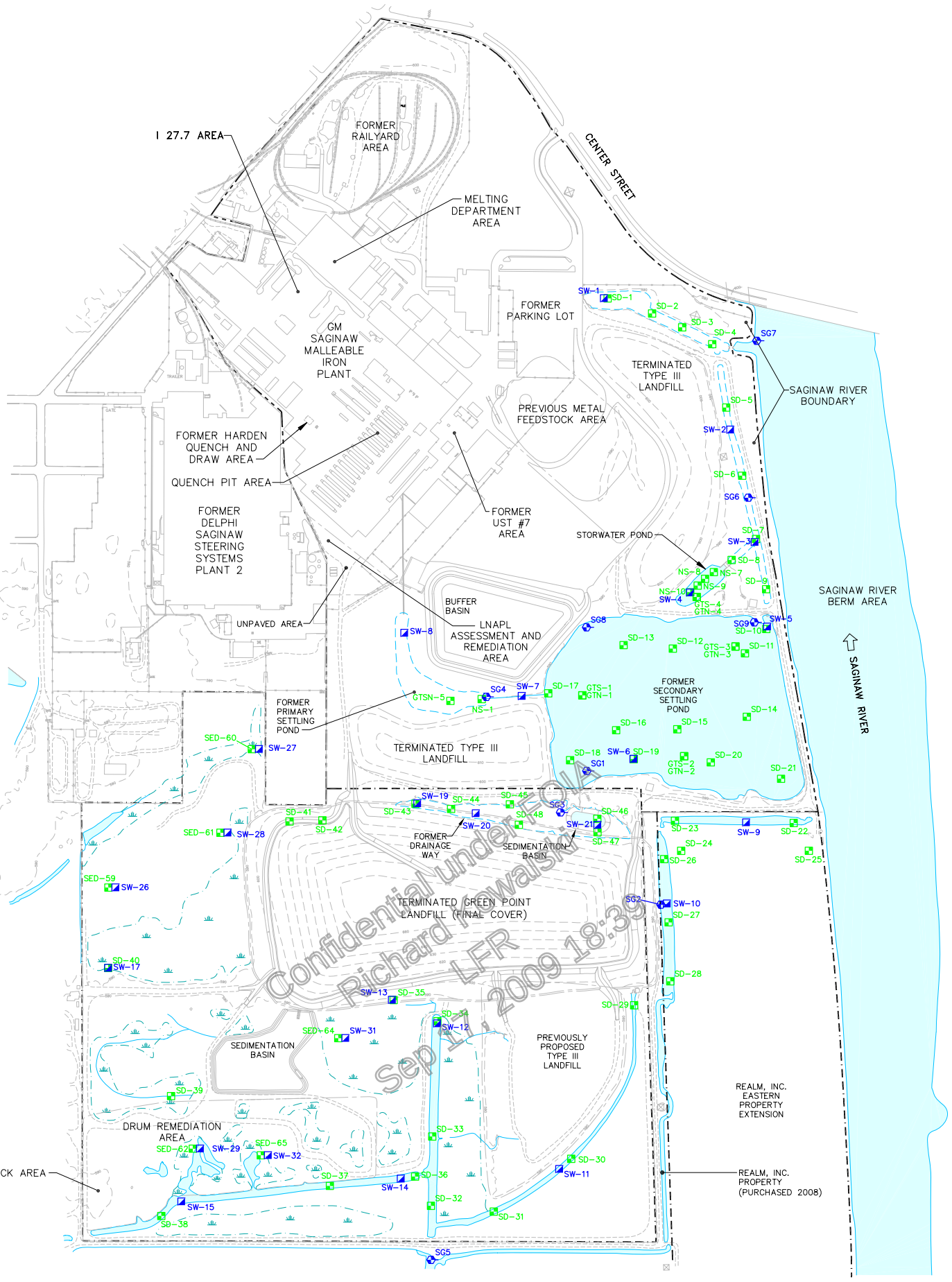
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FIGURE
A-2

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2. SAMPLING LOCATIONS SURVEYED BY ATWELL-HICKS, INC. UTICA, MICHIGAN, FILE NO. M1014SU2, FILE DATE 3/22/96, REVISED 8/8/96. GEOTECHNICAL SEDIMENT LOCATIONS GTS-1 THROUGH GTS-4, GTN-1 THROUGH GTN-4, AND GTSN-5 WERE NOT SURVEYED AND ARE APPROXIMATE.
3. BASE MAP HAS BEEN MODIFIED TO INCORPORATE BUFFER BASIN, SEDIMENTATION BASINS, WETLANDS MITIGATION AREA, AND GREEN POINT LANDFILL (GPL) FINAL COVER FROM THE FINAL ENGINEERING DESIGN REPORT PREPARED BY BBL FOR THE GPL, DATED JANUARY 1998.
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LEGEND:

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- REALM, INC. PROPERTY LINE (APPROX.)
- UNPAVED ROAD
- GROUND SURFACE ELEVATION CONTOUR (10 FT INTERVAL)
- FENCE LINE
- SWAMPY AREA
- SED-65 SEDIMENT SAMPLE
- SG5 STAFF GAUGE
- SW-32 SURFACE WATER SAMPLE

0 300' 600'
GRAPHIC SCALE

SAGINAW MALLEABLE IRON PLANT PROPERTY,
GREEN POINT LANDFILL, AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN
REMEDIAL ACTION PLAN

SURFACE WATER AND SEDIMENT SAMPLING LOCATION MAP

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FIGURE
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Appendix B

Human Health Evaluation Addendum

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Appendix B

Human Health Evaluation Addendum

General Motors Corporation Saginaw Malleable Iron Plant Property, and REALM, Inc. Green Point Landfill and Drum Remediation Area Saginaw, Michigan

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1. Introduction

This *Human Health Evaluation Report Addendum* (HHE Addendum) has been prepared on behalf of the General Motors Corporation (GM), its subsidiary, the Remediation and Liability Management Company, Inc. (REALM, Inc.), and Waste Management, Inc. (WMI) for the GM Saginaw Malleable Iron (SMI) Plant Property, and REALM Green Point Landfill and Drum Remediation Area Property, located in Saginaw, Michigan. This HHE addendum supplements the *Human Health Evaluation Report* (BBL, 2003) that was presented as Appendix A of the *Feasibility Study Report* (BBL, 2003). The Feasibility Study (FS) was approved by the Michigan Department of Environmental Quality (MDEQ) in a letter dated November 18, 2003 (Brouillet, B., 2003).

The purpose of this HHE addendum is to incorporate consideration of new Site data, updated cleanup criteria and additional information requested by the MDEQ. Additional data has been collected in the Railyard Area, the Previous Metal Feedstock Area and the Saginaw River Berm Area. In addition, new data is available for areas that were not previously evaluated, including the area between the Previous Metal Feedstock Storage Area and the Buffer Basin (BH-9 and BH-10), the Primary Settling Pond (BH-7 and BH-8) and the Eastern Property Extension (BH-1 through BH-6).

The HHE presented in this addendum was conducted consistent with Michigan law, administrative rules and state and federal guidance:

- MDEQ Part 201 of the Natural Resources and Environmental Protection Act (NREPA), 1994 PA 451, as amended, and associated Administrative Rules (Part 201 Rules);
- MDEQ Remediation and Redevelopment Division (RRD) Operational Memorandum no. 1 (Op Memo 1): Part 201 Generic Cleanup Criteria and Screening Levels: Part 213 Risk-Based Screening Levels (MDEQ, 2004);
- Risk Assessment Guidance for Superfund (RAGS), Volume I Human Health Evaluation Manual, Part A (USEPA, 1989); and
- Exposure Factors Handbook (USEPA, 1997).

The methodology adopted for this HHE addendum is consistent with the procedures outlined in MDEQ Op Memo 1 and the approach adapted in the original HHE (BBL, 2003). In practice, the methodology is a tiered approach, which starts with a relatively simple analysis and moves to more sophisticated analyses as dictated by initial results.

The chemical constituent concentrations detected at the site were compared to relevant MDEQ generic cleanup criteria. MDEQ generic cleanup criteria are based upon the current or proposed land use. The MDEQ remedial action types appropriate for this HHE are: *Generic Remedial Actions, Facility-Specific Generic Remedial Actions*, and *Site-specific Remedial Actions*. The first category of cleanup criteria utilized in the MDEQ process is the *Generic Cleanup Criteria*. These criteria are based on generic exposure assumptions that are representative of or exceed the expected exposures for potential receptors. The second category of MDEQ cleanup criteria is the *Facility-Specific Generic Cleanup Criteria* where the generic criteria have been modified based upon facility specific characteristics of the property that are not expected to change. This second category is actually a refined subset of the *Generic Cleanup Criteria*. The third category of MDEQ cleanup criteria is the

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Site-Specific Cleanup Criteria. *Site-Specific Cleanup Criteria* are based on alternative exposure assumptions unique to the facility that is the focus of the evaluation.

MDEQ cleanup criteria are based on an excess lifetime cancer risk of 1×10^{-5} (1 in 100,000) or a hazard quotient (HQ) of 1. *MDEQ Generic Cleanup Criteria* were developed by rearranging a typical forward risk assessment equation to determine the chemical concentration that would result in this risk value. This method is presented in the following equations.

Risk = *Chemical Concentration x Exposure x Toxicity*

By rearranging the above risk equation, the following equation is used to determine the chemical concentration that would result from applying the desired MDEQ risk value of 1×10^{-5} or HQ of 1.

Chemical Concentration = Risk ÷ (*Exposure x Toxicity)*

Development of *Facility-Specific Generic Cleanup Criteria* and *Site-Specific Cleanup Criteria* follow this same procedure. The only difference is that *Facility-Specific Generic Cleanup Criteria* (FSGCC) are modified based upon site-specific physical characteristics that are not expected to change, and *Site-Specific Cleanup Criteria* are modified based on site-specific exposure assumptions (MDEQ, 2004).

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This HHE Addendum follows the same approach presented in Figure 2 of the HHE (BBL, 2003). As a first step, in this HHE Addendum, a preliminary site exposure conceptual model (ECSM) was developed for the site. All the chemical constituents detected at the GM SMI Plant were then compared to the most recent MDEQ *Generic Cleanup Criteria*. This comparison is meant to eliminate from further consideration all chemicals which, because of either low concentrations, low frequency of detection, or low exposure potential, are not expected to represent significant human health risks. Comparison of the chemical constituents to MDEQ *Generic Cleanup Criteria* was discussed originally in Section 4 of the HHE and presented in Tables 4-2 through 4-6 of that report (BBL 2003). The updated comparisons, including new data collected since the original HHE was prepared are briefly discussed in Section 2 of this Addendum and presented in Attachment I, Tables I-1 through I-3 of this Addendum. Following this step, any chemical constituents found to have concentrations in excess of the MDEQ Generic Cleanup Criteria or that were lacking criteria were carried through for a more thorough analysis. A summary of the constituents exceeding the generic MDEQ criteria is shown in Table I-4 of in Attachment I of this Addendum. Site data were organized by area, shown on Figure 1-2 of the Remedial Action Plan (RAP) and the 95% upper confidence limit (UCL) of the arithmetic mean was calculated where appropriate (detailed discussion of the 95% UCL calculation is included in Attachment II of this HHE Addendum). The 95% UCL is considered to be a conservative estimate of the true arithmetic mean and an acceptable value to use to evaluate chemical exposures (MDEQ, 2004). Merely exceeding these generic cleanup values does not imply that the concentrations found at the GM SMI Plant represent a significant health risk, only that additional analysis was required.

Complying with MDEQ guidance (Op Memo 1), chemical constituents remaining after comparison to *Generic Cleanup Criteria* were compared to *Facility-Specific Generic Cleanup Criteria* (FSGCC). FSGCC are based on site-specific physical characteristics that are not expected to change, such as groundwater characteristics (MDEQ, 2004). A detailed discussion of this step is included in Section 5 of the original HHE (BBL, 2003) and chemical constituents that exceed the FSGCC are provided in Tables 5-1 and 5-2 of that report. Comparisons to the FSGCC are provided in Tables I-5 through I-7 in Attachment I of this Addendum.

In accordance with MDEQ guidance (Op Memo 1), *Site-Specific Cleanup Criteria* (SSCC) were developed for those chemical constituents remaining after comparison to the FSGCC. The purpose of this subsequent analysis

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was to provide risk-based criteria that are more reflective of current and reasonably anticipated future conditions at this facility. The development of the SSCC requires certain modifications to the exposure assumptions and default variables used to derive the MDEQ *Generic Cleanup Criteria*. The specific modifications and the scientific justification for these alternative values are described in Section 6 of the original HHE (BBL, 2003).

The product of the revised algorithms provides the basis of the SSCC comparison. During the SSCC evaluation, the preliminary site ECSM was revised to specifically address site conditions. The revised ECSM was developed to identify potential or suspected sources of chemicals and affected media, potentially exposed populations, and potential exposure pathways. The SSCC are only developed for those constituents that have concentrations exceeding MDEQ Generic Cleanup Criteria and FSGCC. The development of the SSCC is presented in Section 6 of the original HHE document (BBL, 2003). Once the SSCC are developed for those constituents exceeding the MDEQ *Generic Cleanup Criteria* or *Facility-Specific Generic Cleanup Criteria*, the site data are compared to these site-specific criteria. Constituents exceeding SSCCs in this Addendum are being addressed by placing restrictive covenants on specific areas of the property. The results of the SSCC evaluation are presented in Section 4.

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2. Comparison to Generic Cleanup Criteria and Screening Levels

The first step in this process is selecting the appropriate land use criteria. The GM SMI Plant facility has been used for industrial purposes for decades. Consistent with the HHE, since GM/REALM intends to restrict use of the property for industrial use in the future, the "generic and limited Industrial and Commercial II category was deemed appropriate for the HHE and this HHE Addendum. In order to allow for a wider range of potential future uses of the site (in the event of a zoning change), analytical data was also compared to the Commercial III and Commercial IV Direct Contact Criteria.

2.1 Summary of Analytical Data

The analytical data used for this HHE Addendum were collected during sampling events conducted throughout the remedial investigation (RI) (BBL, 2001) and interim measurement activities from 1995 to present. Additional data have been collected since the HHE was submitted in 2003. All data are summarized in Appendix A of the RAP, Tables A-1 through A-4. Data were compared to the current *Generic Cleanup Criteria* in Attachment I Tables I-1 through I-3 of this HHE Addendum. Attachment I Table I-4 lists the constituents that exceeded *Generic Cleanup Criteria* as constituents of potential concern (COPCs). Any exceedances were reviewed and it was determined if the area had been adequately characterized and addressed in the original HHE. The data that were determined not to be adequately addressed in the HHE are addressed in this Addendum. The site ECSM used in the HHE was determined to be appropriate for use in this addendum. Due to remedial activities conducted in various areas of the facility, subsequent confirmatory sampling may have been conducted. Samples from areas where soil has been removed were eliminated from the data set used to evaluate site conditions. Removed samples are listed in Table I-8 of Attachment I. These subsequent results were generally lower than the original results, and were used for comparison to the generic criteria, given the fact that they are reflective of current site conditions.

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The 95% UCL of the arithmetic mean was calculated and used where appropriate to represent levels in the soil (exposure point concentrations). In accordance with MDEQ guidance, the 95% UCL of the arithmetic mean can be used to determine compliance with the generic criteria for select pathways provided the 95% UCL reasonably represents the areas over which exposures are expected to occur. The 95% UCL was calculated for each chemical detected within each area of concern (AOC) provided the data sets were sufficiently robust to adopt this statistical approach. AOCs are depicted on Figure 1-2 of the RAP. Data sets used to evaluate these areas are provided in Attachment II.

The 95% UCLs were compared to the MDEQ criteria except in data sets where the 95% UCL exceeded the maximum concentration. Where this occurred, the maximum detected concentration was used as a conservative exposure point concentration (USEPA, 1992). A detailed explanation of the derivation of the 95% UCL values is provided in Attachment II.

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2.2 Exposure Pathway Analysis

The evaluation of the potentially relevant and complete exposure pathways is presented in detail in the original HHE (BBL 2003).

- Section 4 provides the rationale for the selection of generic criteria used in the initial screening of the data.
- Section 5 provides the rationale for the FSGCC and constituents identified for site-specific analysis.
- Section 6 provides the rationale for the SSCC.

This analysis has remained the same. However the comparisons to criteria have been updated. The updated comparisons are provided in the following sections.

2.3 Comparison to MDEQ *Generic Cleanup Criteria*

The laboratory analytical results for the GM SMI Plant facility were compared to MDEQ *Generic Cleanup Criteria,* which are summarized in the RRD Op Memo 1, dated December 10, 2004 (MDEQ, 2004). Summary tables of the Site soil and groundwater data that were found to exceed the *Generic Cleanup Criteria* are included in the RAP (see Appendix A Tables A-1 through A-4).

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The GM SMI Plant facility is placed in the Industrial Land Use Category. Therefore, chemical constituents detected at the site were compared to MDEQ Industrial *Generic Cleanup Criteria*, with the exception of groundwater. Groundwater at and down gradient of the Site is not currently used and is highly unlikely to be used as a drinking water source in the future (see discussion in Section 2 of the RAP). Based on the proposed recording of restrictions on the property deed preventing groundwater use for drinking water purposes, the groundwater will not be used onsite as a source of drinking water in the future, and there are no residential properties hydraulically down gradient of the Site. Accordingly, ingestion of groundwater, as residential or industrial drinking water, is not considered a potentially complete exposure pathway, and therefore is not considered in this Addendum.

Exceedances of the Groundwater Surface Water Interface (GSI) criteria at the Saginaw River boundary are addressed separately, through the implementation of monitoring activities, and submittal of a Mixing Zone Application (Appendix I).

The purpose of this comparison to generic cleanup criteria is to identify chemicals of potential concern (COPCs) that do not pose a significant health risk and can be eliminated from further evaluation; and to identify which COPCs need to be evaluated further.

2.3.1 Relevant and Applicable MDEQ Generic Criteria

The following generic criteria were identified as potentially relevant and applicable to site conditions. These were used in the screening assessment to identify COPCs.

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MDEQ Generic Cleanup Criteria for Groundwater

Although there is no actual routine exposure to groundwater at the site, groundwater samples collected from temporary and permanent monitoring wells were compared to the following applicable MDEQ *Generic Cleanup Criteria*:

- Groundwater Contact Criteria (GCC), to assess dermal exposure;
- Acute Inhalation Screening Level (AISL); to assess inhalation exposure;
- Residential and Industrial Groundwater Volatilization to Indoor Air Criteria (RGVIIC and IGVIIC; respectively), to assess indoor air hazards;
- Flammability and Explosivity Screening Level (FESL) values; and
- Water Solubility Screening Level (WSSL) values.

Depth to groundwater ranges from 2 to 10 feet below ground surface. Intrusive workers may contact groundwater during excavation activities.

MDEQ Generic Cleanup Criteria for Soil

Currently at the site, there is potential for exposure to soils; therefore, soil data were compared to the following MDEQ *Generic Cleanup Criteria*:

- Soil Criteria Protective of Groundwater Contact (GCCP);
- Industrial and Commercial II Direct Contact (IDC), to assess ingestion and dermal exposure;
- Industrial and Commercial II, III, and IV Soil Volatilization to Indoor Air Inhalation Criteria (ISVIIC), to assess indoor air hazards;
- Industrial and Commercial II, III, and IV Infinite Source Volatile Soil Inhalation Criteria (IVSIC), to assess ambient air inhalation hazards; and
- Industrial and Commercial II, III, and IV Particulate Soil Inhalation Criteria (IPSIC), to assess ambient air inhalation hazards.

In order to allow for a wider range of future uses at the site (in the event of a zoning change), the soil data were also compared to the Commercial III and Commercial IV Direct Contact Criteria.

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2.3.2 COPCs

COPCs identified based on this comparison are identified in Tables 5-1 and 5-2 of the original HHE (BBL 2003) and are listed below.

Soil
l

- Surface
    - Chromium;
    - Lead; and
    - Manganese.
- Subsurface
    - Benzene;
    - Polychlorinated biphenyls (PCBs);
    - Lead; and
    - Manganese.

Groundwater

- Vinyl chloride;
- Bis(2-ethylhexyl)phthalate; and
- Dioxins/furans.

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2.3.3 Additional Evaluation

There were a few exceedances of the generic cleanup criteria that were not addressed in the original HHE. These exceedances are summarized and discussed in the following Sections.

In addition, the MDEQ *Generic Cleanup Criteria* for vinyl chloride increased since the original HHE was completed in 2003. The current IGVIIC for vinyl chloride is 13,000 ug/L and the current GCC is 1,000 ug/L. The maximum detected concentration of vinyl chloride in groundwater was 2,300 ug/L. This value still exceeds the GCC; however it does not exceed the IGVIIC. The exceedance of the GCC was adequately addressed in the original HHE by developing SSCC, and therefore will not be addressed further in this HHE Addendum.

The soil analytical data was originally compared only to the Industrial and Commercial II Direct Contact Criteria. In order to allow for a wider range of potential future uses of the site (in the event of a zoning change), the soil data was also compared to the Commercial III and Commercial IV Direct Contact Criteria. In general, the Industrial and Commercial II Direct Contact Criteria are more restrictive than the Commercial III and Commercial IV Direct Contact Criteria for the constituents that were analyzed on-site, with the exception of lead. There are two areas of the site (The Former Railyard Area and the LNAPL Assessment and Remediation Area) with soil samples exceeding the generic Commercial III or Commercial IV Direct Contact Criteria (both 400 mg/kg). A summary of the soil samples with lead concentrations exceeding any of the Industrial or Commercial Direct Contact Criteria are listed in Table 2-1.

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TABLE 2-1
SUMMARY OF LEAD RESULTS EXCEEDING GENERIC INDUSTRIAL AND COMMERCIAL (II, III, OR IV) DIRECT CONTACT CRITERIA IN SOIL

Soil Sample	Area	Result (mg/kg)
RS-2 (0-1')	Former Railyard	530[1]
RS-2-4 (0-1')	Former Railyard	456[1]
RS-2-5 (0-1')	Former Railyard	769[1]
RS-2-6 (0-1')	Former Railyard	1,370
SB-362 (0-2')	LNAPL Assessment	1,020
SB-363 (0-2')	LNAPL Assessment	1,320
SB-363 (4-6')	LNAPL Assessment	1,780

Note:
[1] = Concentration exceeds Commercial III and Commercial IV Direct Contact Criteria but not Industrial and Commercial II Direct Contact Criteria.

Lead concentrations in these areas also exceed the generic Industrial and Commercial II Direct Contact Criteria, and therefore SSCC were developed for a Production Worker, a Maintenance Worker, an Intrusive/Construction Worker, and a Site Visitor using the Adult Lead Model (Appendix D of the original HHE). The exposure scenarios for these four populations are expected to be protective of potential future uses of the site. The SSCC for the Intrusive/Construction Worker was calculated to be 1,982 mg/kg and the lowest calculated SSCC for the production worker, maintenance worker and site visitor was calculated to be 1,610 mg/kg. Therefore, the analyses completed in the original HHE are deemed appropriate and adequate for the direct contact exceedances for lead in these two areas of the site. Accordingly, the lead exceedances will not be addressed further in this HHE Addendum.

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2.3.3.1 Former CTC Parking Lot East of the Main Plant

In August 2001, four soil samples were collected from below the asphalt at the former CTC Parking Lot East of the Main Plant in preparation for excavation and removal of the asphalt. The samples from the former parking lot were found to contain manganese at concentrations above the IPSIC (Table 2-2). Following removal of the asphalt, approximately 8 inches of clean fill was added and grass seed was planted (Coffey, 2005). This area was not discussed in the original HHE; therefore, the data evaluation is presented in this document.

TABLE 2-2
FORMER CTC PARKING LOT EAST OF THE MAIN PLANT
GENERIC IPSIC EXCEEDED IN SOIL

Chemical Constituent	Exposure Point Concentration [1] (mg/kg)	MDEQ IPSIC Value (mg/kg)
Manganese	11,600 [1]	1,500

Note:
[1] = Maximum detected concentration.

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Technical Assessment of Exceedances

Manganese detected in the former CTC Parking Lot East of the Main Plant soil will be assessed in the Facility-Specific Generic Cleanup Remedial Action Evaluation, and if required, the Site-Specific Remedial Action Evaluation.

2.3.3.2 Former Railyard Area

The former Railyard Area is an unpaved area located north of the SMI Plant and is used for the temporary storage of process materials and equipment. Surface soil samples were collected from the former Railyard Area during the RI and in 2007 by CRA.

Total chromium was detected (at 3 locations) at concentrations exceeding the IPSIC for hexavalent chromium, and was not addressed in the original HHE. Please note that these sample analyses were conservatively compared to the hexavalent chromium criteria. Chromium, where speciated onsite, has been determined to be in a trivalent state and those criteria were not exceeded.

Additional manganese sampling of surface soil was completed in August 2005 by ARCADIS (10 samples) and in 2007 by CRA (2 samples) and these data are included in the derivation of the 95% UCL, used here as the exposure point concentration. The chemical constituents detected in surface soil that exceed MDEQ generic industrial criteria are listed in Table 2-3 below.

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TABLE 2-3
FORMER RAILYARD AREA
GENERIC IPSIC EXCEEDED IN SOIL

Chemical Constituent	Exposure Point Concentration [1] (mg/kg)	MDEQ RPSIC Value (mg/kg)	MDEQ IPSIC Value (mg/kg)
Chromium (total)	1,110 [1]	260 [3]	240 [3]
Manganese	3,540 [2]	3,300	1,500

Notes:
[1] = Maximum detected concentration.
[2] = 95% UCL concentration.
[3] = As hexavalent chromium.

Technical Assessment of Exceedances

Per MDEQ guidance (Op Memo 1), total chromium data were originally compared to the more conservative hexavalent chromium criteria. To determine the breakdown between hexavalent and trivalent chromium at the two locations (pre-2007) where total chromium was detected, the sampling points were re-located in the field by a surveying contractor, and samples were collected for analysis of total and hexavalent chromium. Hexavalent chromium was not detected in either sample and total chromium concentrations do not exceed the generic MDEQ IPSIC for trivalent chromium (15,000 mg/kg). As a result, chromium is not considered further in this assessment.

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Manganese, with the additional sampling results, has a 95% UCL above the residential and industrial particulate inhalation criteria. Manganese detected in the former Railyard Area soil will be assessed in the Facility-Specific Generic Cleanup Remedial Action Evaluation and, if required, in the Site-Specific Remedial Action Evaluation.

2.3.3.3 Saginaw River Berm Area

Surface and subsurface soil samples were collected from the berm of the Saginaw River in July 2000 and analyzed for TCL PCBs and TAL inorganics. Manganese and total chromium were detected in the berm area above the IPSIC values. In September 2004, surface soils at three soil boring locations (SB-378, SB-380, and SB-381) were removed. Conestoga-Rovers & Associates (CRA) completed the removal and verification sampling. These results are included in a report titled *Summary of Interim Response Activities Associated with East/West Ditch Filling and Removal of Manganese Impacted Soil in Saginaw River Berm, GMPT SMI* (CRA, 2005). The resulting concentrations were evaluated and any concentrations exceeding the MDEQ generic criteria in soil are listed below in Table 2-4. The post-remediation exposure point concentration for chromium was added to identify the maximum detected concentration of chromium from the soils remaining in-place following excavation activities. The post-remediation exposure point concentrations for manganese changed because samples were inadvertently excluded from the original dataset used for statistical analyses.

TABLE 2-4
SAGINAW RIVER BERM AREA
EXCEEDED IN SOIL

Chemical Constituent Criteria Exceeded	Exposure Point Concentration Pre-Remediation (mg/kg)	Exposure Point Concentration Post-Remediation (mg/kg)	MDEQ RPSIC Value (mg/kg)	MDEQ IPSIC Value (mg/kg)
Chromium	324 [1]	65.7[1]	260 [3]	240 [3]
Manganese (surface)	32,600 [1]	2,330 [2]	3,300	1,500
Manganese (subsurface)	476 [1]	5,800 [2]	3,300	1,500

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Notes:
[1] = Maximum detected concentration.
[2] = 95% UCL concentration.
[3] = As hexavalent chromium.

Technical Assessment of Exceedances

As per MDEQ guidance (Op Memo 1) total chromium data were compared to conservative hexavalent chromium standard. This standard was exceeded in only 2 of the 28 samples collected. Total chromium exceeded the standard once at SB-381, and was essentially equal to the generic standard at SB-378. Both of the areas were excavated in September 2004, as a result total chromium is not considered further in this assessment. Manganese concentrations in surface samples were below residential standards following excavation. Manganese detected in the berm area soil will be assessed in the Facility-Specific Generic Cleanup Remedial Action Evaluation and, if required, in the Site-Specific Remedial Action Evaluation.

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2.3.3.4 Previous Metal Feedstock Area

The Previous Metal Feedstock Area is located east of the SMI Plant. This area was previously used for the storage of metal feedstock. The generic IPSIC for manganese was exceeded at one surface soil sample location and three subsurface soil samples locations. Because the surface soil dataset contained an outlier, the maximum concentration was used as the exposure point concentration for surface soil. The 95% UCL was used as the exposure point concentrations for subsurface soil. The chemical constituents exceeding MDEQ generic criteria in soils are presented in Table 2-5.

TABLE 2-5
PREVIOUS METAL FEEDSTOCK AREA
GENERIC IDWP AND IPSIC CRITERIA EXCEEDED IN SURFACE AND SUBSURFACE SOIL

Chemical Constituent	Exposure Point Concentration [1] (mg/kg)	MDEQ RPSIC Value (mg/kg)	MDEQ IPSIC Value (mg/kg)
Manganese (soil column)	7,410[2]	3,300	1,500
Manganese (surface)	6,140[1]	3,300	1,500

Notes:
[1] = Maximum detected concentration.
[2] = 95% UCL concentration.

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Technical Assessment of Exceedances

Manganese detected in surface and subsurface soil will be assessed in the Facility-Specific Generic Cleanup Remedial Action Evaluation and, if required, in the Site-Specific Remedial Action Evaluation.

2.3.3.5 Parking Lot North of Buffer Basin

In 2007, CRA collected four soil samples at two locations (BH-9 and BH-10) from beneath the concrete Parking Lot North of Buffer Basin. Samples were collected at 1 to 2 feet bgs and at 2 to 4 feet bgs. Both subsurface soil samples collected at BH-10 exceeded the generic IPSIC for manganese. Due to the limited number of samples in this area, the maximum concentration was used as the exposure point concentration.

TABLE 2-6
PARKING LOT NORTH OF BUFFER BASIN
GENERIC IDWP AND IPSIC CRITERIA EXCEEDED IN SURFACE AND SUBSURFACE SOIL

Chemical Constituent	Exposure Point Concentration [1] (mg/kg)	MDEQ RPSIC Value (mg/kg)	MDEQ IPSIC Value (mg/kg)
Manganese (subsurface)	11,900 [1]	3,300	1,500

Notes:
[1] = Maximum concentration.

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Technical Assessment of Exceedances

Manganese detected in subsurface soil will be assessed in the Facility-Specific Generic Cleanup Remedial Action Evaluation and, if required, in the Site-Specific Remedial Action Evaluation.

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3. Facility-Specific Generic Cleanup Remedial Action Evaluation

FSGCC, as discussed in detail in the original HHE and FS, are generic criteria that have been modified based upon the characteristics of the property that are not expected to change. The drinking water pathway was eliminated from the assessment in this step for both off- and on-site receptors. This evaluation is presented in detail in Section 5 of the original HHE (BBL 2003). The additional work presented in this addendum does not change the approach or results of the facility-specific evaluation. Soil exceedances identified are not expected to be affected by any of these physical characteristics of the property. A summary of the data compared to the FSGCC is presented in Attachment I, Tables I-5 through I-7.

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4. Site-Specific Remedial Action Evaluation

The following Section provides additional analyses completed for the site-specific evaluation and include information requested by, and discussed with, MDEQ. This includes issues specifically addressed in a March 24th, 2006 letter from GM REALM to Mr. Allan Brouillet of the Remediation and Redevelopment Division of MDEQ.

4.1 Development of Site-Specific Cleanup Criteria

For this HHE Addendum, SSCC were developed in accordance with MDEQ guidelines. The process of developing these SSCC is consistent with what is outlined in Op Memo 1 (MDEQ, 2004). These criteria are based on alternative exposure assumptions unique to the GM SMI Plant facility. SSCC are derived from essentially the same equations used to calculate MDEQ Generic Cleanup Criteria, except that site-specific parameters are used in the calculations.

A revised site ECSM, including an exposure assessment is developed as part of the SSCC comparison. The revised site ECSM and exposure pathway analysis is described in detail in Section 4 of the original HHE (BBL, 2003). It is briefly summarized below.

Additionally, any modifications to the MDEQ *Generic Cleanup Criteria* algorithms and the development of the SSCC are described in original HHE.

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The potential inhalation of manganese impacted particulate is the only pathway evaluated in the following section of the Addendum.

The following Section provides a description of how the potential exposure to particulate was evaluated and provides a comparison of point of exposure concentrations and includes detail requested by MDEQ. Calculations are provided as Attachment C.

- PSIC protective of on-site receptors: value calculated using Michigan default exposure parameters for maintenance workers and site-specific exposure parameters for intrusive workers.

- PSIC for off-site receptors: generic Michigan default exposure parameters used, and PEF modified for source-area size.

4.1.1 Source Areas

There are two potentially relevant on-site sources of manganese, the Former Railyard Area and the Previous Metal Feedstock Area. The Former Railyard Area is approximately 9.5 acres and the Previous Metal Feedstock Area is approximately 8.6 acres. Other source areas are present on site (e.g., Saginaw River Berm); however, they are located in areas of the site that are not routinely used, are not located on the Site property, or are located beneath covered parking lots that will remain covered.

For the protection of off-site residents, only the Former Railyard Area was identified as a potential source area due to the location and proximity to off-site residential areas.

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4.1.2 Potentially Exposed Populations and Complete Pathways

SSCC were developed for off-site residents, on-site outdoor maintenance workers, and on-site construction workers. The rationale for choosing these receptors and exposure assumptions is provided below.

A summary of the exposure parameters used to calculate site-specific PSIC are presented in Table 4-1 below.

4.1.2.1 Off-Site Resident

The potential for manganese impacted dust to impact off-site residents was evaluated. The default exposure parameters were used for the off-site residents.

A summary of the exposure parameters used to calculate site-specific PSIC are presented in Table 4-1 below.

4.1.2.2 Maintenance Worker

This receptor was selected to specifically evaluate outdoor exposures. This individual spends most of the workday conducting maintenance activities outdoors. These activities include, but are not limited to mowing grass and inspecting the landfills. Occasionally this individual may be involved in emergency type activities (i.e. utility line repair) that would require him to be engaged in intrusive type work which may result in exposure to surface and subsurface soils, and non-potable groundwater. This receptor is the only one that will consistently contact soil in the non-production area. Because this individual represents the most heavily, chronically exposed individual for the non-production area, the risk-based values developed for this receptor will be conservative and protective of other receptors potentially exposed in this area.

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It was assumed that the maintenance worker would only be exposed to surface soils except for occasional emergency-type activities (i.e., utility line repair) that would require the worker to be engaged in intrusive-type work (assumed up to 5 events per year) which may result in exposure to surface and subsurface soils, and non-potable groundwater.

A summary of the exposure parameters used to calculate site-specific PSIC are presented in Table 4-1.

4.1.2.3 Construction Worker (or more correctly an intrusive worker)

This receptor was selected to specifically evaluate potential high-contact, non-routine, activity to subsurface soil and non-potable groundwater. This individual is involved in certain land intrusive activities at the facility, which may result in exposure to surface soils, subsurface soils, and non-potable groundwater associated with the non-production area. However, exposure for these individuals will be relatively short in duration, and this person is unlikely to be a site employee. As a highly conservative assumption, this worker is assumed to never be indoors.

The intrusive worker is assumed to be exposed to both surface and subsurface soils.

This receptor is assumed to be a short-term contractor and not a GM employee. This receptor was assumed to be exposed at a high intensity for a short period of time. This was accomplished by using exposure parameters (consistent with the USEPA (2001) construction worker scenario) that reflect this type of activity (e.g., soil

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ingestion rate of 330 milligrams per day [mg/day], a surface area of 3,300 cubic centimeters [cm^2], and a skin to soil adherence factor of 0.3 milligrams per cubic centimeter per event [mg/cm^2-event]).

The exposure frequency of 30 days per year for the intrusive worker was based on professional judgment, assuming intrusive activities last 6 weeks, 5 days per week. This value was presented in a memo to Chris Flaga from John Schell dated March 27, 2003 (sent via email).

A summary of the exposure parameters used to calculate site-specific PSIC are presented in Table 4-1 below.

4.1.3 Calculations

4.1.3.1 Particulate Emission Factor

The particulate emission factor (PEF) was adjusted for an 18-acre source area for both the residential and industrial exposure scenarios. A PEF was calculated using both the default assumption for vehicular traffic and, in agreement with the proposed deed restrictions of the RAP, no vehicular traffic.

The site conditions assumed in the derivation of the default PEF (e.g. 50 vehicles traveling 2.25 kilometers per day in the area) are likely to overestimate dust generation at the site. Currently, there is no routine truck traffic in the Former Railyard, and deed restrictions will prevent traffic generation of dust in the areas in question in the future. (More realistically, there will not be any vehicular traffic in the future in the areas in question.) The areas are currently vegetated, and this cover will be maintained as 50% or greater.

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Quote from the RAP:

> *V. Former Railyard Area*
> *In order to protect against the inhalation of hazardous substances present in surface soil, the vegetative cover will be maintained (minimum of 50 % coverage of soil surface), and roadways may not be installed unless properly constructed (at least 6 inches of gravel or pavement cover) or other changes approved by MDEQ occur in the former Railyard Area. Activities in this area of the Site are restricted to those consistent with current facility operations, including access by a maintenance worker who spends no more than 160 days, per any such worker per year, and an intrusive/construction worker who spends no more than 30 days, per any such worker per year, in the area. To implement activities in this area that are inconsistent with current facility operations, a Health and Safety Plan must be developed and followed or the activity must be approved by the MDEQ prior to implementation.*

4.1.3.2 Site-Specific PSIC

The parameters used to derive the PSIC values are presented below. The PEF values used are MDEQ default values as presented in the technical support document dated August 31, 1998 (Part 201 Generic Soil Inhalation Criteria for Ambient Air).

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$$SSCC - PSIC(mg/kg) = \left[\frac{TH \times AT \times AIR}{EF \times ED \times \left(\frac{1}{RfC}\right) \times \left(\frac{1}{PEF/2}\right)} \right] \times AF$$

Where:

TH = Target Hazard Quotient (unitless);
AT = Averaging Time (days; = ED x 365 days per year);
AIR = Adjusted Inhalation Rate (unitless);
EF = Exposure Frequency (days);
ED = Exposure Duration (years);
RfC = Reference Concentration (milligrams per cubic meter [mg/m^3]);
PEF = Particulate Emission Factor (cubic meters per kilogram [m^3/kg]); and
AF = Adjustment factor for source size (unitless).

The PEF is divided by 2 as discussed in the guidance to account for short-term peak particulate levels for all chemicals which are associated with quarterly, 24-hour, 8-hour, or 2-hour averaging times under the Air Toxics Rule. However, application of the safety factor of 2 is unnecessary given the data used to derive the manganese reference concentrations. In a letter sent to Chris Flaga from John Schell (March 20, 2002), Dr. Schell outlines several technical issues that support the modification of the generic manganese IPSIC. One of the issues outlined in the letter was the unnecessary inclusion of the application of the 2-fold safety factor to protect against acute risks. Manganese is not acutely toxic and therefore this additional safety factor results in an overly conservative IPSIC.

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The input parameters for each of the calculated site-Specific PSIC are presented in Table 4-1 below.

TABLE 4-1
SUMMARY OF INPUT PARAMETERS FOR THE PSIC SSCC

Parameter	Default Industrial	Default Residential	Site-Specific Residential	Site-Specific Maintenance	Site-Specific Intrusive
TH	1	1	1	1	1
AT	7665	10950	10950	7665	365
AIR	NA	NA	NA	2	2
EF	245	350	350	160	30
ED	21	30	30	21	1
RfC	5.0E-05	5.0E-05	5.0E-05	5.0E-05	5.0E-05
PEF (traffic)	3.95E+07	1.28E+08	1.28E+08	3.95E+07	3.95E+07
PEF (no traffic)	NA	NA	2.99E+08	2.99E+08	NA
AF (9 or 18-acre)	NA	NA	0.6 (9-acre)	0.5 (18-acre)	0.5 (18-acre)
PSIC (traffic)	1.5E+03	3.3E+03	2.0E+03	2.3E+03	1.2E+04
PSIC (no Traffic)	NA	NA	4.7E+03	1.7E+04	NA

The source sizes were revised, in response to MDEQ's comments, to 9.5 acres for the Former Railyard Area and 18 acres for the combined Former Railyard Area and the Previous Metal Feedstock Area. The PSIC values have been revised accordingly.

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Therefore, the maintenance worker SSCC (surface soil SSCC) can be re-calculated using a PEF for no vehicular traffic. The resulting SSCC is 17,000 mg/kg.

The calculation sheets for these site-specific PSIC are included in Attachment III.

4.2 Estimated Exposure

The maximum detected concentration was used as the exposure point concentration in the screening assessment. A statistical approach was used to estimate exposure in the site-specific assessment. Data in a given exposure area was grouped and an 95% UCL on the mean was calculated. The lower of the maximum detected concentration and the 95% UCL was used as the point of exposure concentration.

4.2.1 Sampling and Statistics for Areas of Interest

The following areas of interest were identified based on the screening assessment:

- Former Railyard Area;
- Former CTC Parking Lot;
- Previous Metal Feedstock Area;
- Saginaw River Berm Area; and
- Parking Lot North of Buffer Basin.

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Based on the identified areas of interest, the appropriate datasets were developed for surface soil and for the total soil column. The number of samples and soil borings for each area are summarized in Table 4-2 below. The analytical data are summarized in the Tables in Attachment II. In addition, Table 4-2 summarizes the

TABLE 4-2
SUMMARY OF MANGANESE SAMPLES AND BORING LOCATIONS FOR EACH AREA OF INTEREST

Site Area	Number of Manganese Soil Samples	Surface or Subsurface	IDs of Samples Used to Determine Exposure Point Concentration	Exposure Point Concentration
Former Railyard	19	Surface	RS-1 through RS-4, RS-6 through RS-18 (all samples collected from 0-1 foot depths), BH-11 and BH-12 (collected from 0-2 feet depth)	3,540 mg/kg[2]
Former CTC Parking Lot	6	Surface (below soil cover)	PL-1 through PL-4, VE-1 and VE-2 (collected below paving that has been replaced by soil cover)	11,600 mg/kg[1]
Previous Metal Feedstock Area	11	Surface	FS-1 through FS-8, SB-304, and SB-305 (all samples collected from 0-1 foot depths), SB-352 (0-2 feet depth)	6,140 mg/kg[1]
	15	Soil column	Surface samples listed above plus SB-304 and SB-305 (2-4 foot and 6-8 foot sample depths)	7,410 mg/kg[1]

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Site Area	Number of Manganese Soil Samples	Surface or Subsurface	IDs of Samples Used to Determine Exposure Point Concentration	Exposure Point Concentration
Saginaw River Berm	28	Surface	SB-378 (4 samples at 0-1 foot depth at excavation walls), SB-379 (0-0.5 and 0.5-1 foot sample depths), SB-380 (3 samples at 0-1 foot depth at excavation walls), SB-381(3 samples at 0-1 foot depth at excavation walls), SB-382 through SB-388 (0-0.5 and 0.5-1 foot sample depths).	2,330 mg/kg[2]
	37	Soil Column	Surface samples listed above plus MW-183WT (8-9.5 foot depth), SB-374 (9.5 -10.5 foot depth), SB-375 (6.5-7.5 foot depth), SB-377 (2-2.5 and 2.5-3 foot depth), SB-378 (3 samples at 2-3 foot depth at excavation walls and floor), SB-380 (2 samples at 2-3 foot depth from excavation floor), and SB-381 (2 foot depth from excavation floor)	5,800 mg/kg[2]
Parking Lot North of Buffer Basin	5	Soil Column	SB-354 (0 to 2 feet depth), BH-9 and BH-10 (both 1 to 2 feet and 2 to 4 feet depths)	11,900 mg/kg[1]

Notes:
[1] = Maximum detected concentration.
[2] = 95% UCL concentration.

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This table includes samples that were inadvertently excluded from the statistical analysis completed for the original HHE (BBL 2003) and all additional samples collected in the areas of interest since the original HHE was completed.

Table II-1 of Attachment II summarizes the number of samples; frequency of detection; minimum, mean and maximum concentrations; 95% UCL on the mean; distribution; exposure point concentration; and statistical program used for each area of interest. The datasets for each area of interest area included in Attachment II as Tables II-2 through II-10.

4.3 Comparison of Site Data to the *Site-Specific Cleanup Criteria*

Using the modified equations, *Site-Specific Cleanup Criteria* (SSCC) were developed for the receptors in the production area (i.e., intrusive/construction worker, and production worker) and for the receptors in the non-production area (i.e., maintenance worker, intrusive/construction worker, and site visitor). The products of these calculations, the SSCCs for the production area and the SSCCs for the non-production area, are provided for each chemical constituent that exceeded MDEQ *Generic Cleanup Criteria*. The calculated SSCC for each receptor engaged in activities in the production and/or non-production areas are presented in Tables 4-3 and 4-4. The minimum SSCC is also identified, as is the criterion used in the comparison to site concentrations.

The following areas of interest area considered to be part of the production area:

- Former Railyard Area;
- Former CTC Parking Lot Area;

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- Previous Metal Feedstock Area; and
- Parking Lot North of Buffer Basin.

The following area is considered to be part of the non-production area:

- Saginaw River Berm Area

4.3.1 Production Area

The following table presents the SSCC developed for each receptor assumed to be engaged in activities in the production area of the site. Consistent with the original HHE (BBL, 2003), the production worker is expected to spend most, if not all, of the workday indoors. As a result, the production worker is not expected to be significantly exposed to outdoor particulates.

TABLE 4-3
PRODUCTION AREA
SITE-SPECIFIC CLEANUP CRITERIA FOR
INDUSTRIAL PARTICULATE SOIL INHALATION CRITERIA (IPSIC)
(mg/kg)

Chemical Constituent	Maintenance Worker (surface)	Intrusive/Construction Worker (soil column)	Production Worker (surface)
Manganese	2,300*	12,000	--

Notes:
* = Minimum SSCC calculated.
-- = Production worker is not expected to be significantly exposed to outdoor particulates.

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4.3.2 Non-Production Area

The following tables present the SSCCs developed for each receptor assumed to be engaged in activities in the non-production area of the site.

TABLE 4-4
NON-PRODUCTION AREA
SITE-SPECIFIC CLEANUP CRITERIA FOR
INDUSTRIAL PARTICULATE SOIL INHALATION CRITERIA (IPSIC)

Chemical Constituent	Maintenance Worker (surface)	Intrusive/Construction Worker (soil column)	Site Visitor (surface)
Manganese	2,300*	12,000	360,288

Note:
* = Minimum SSCC calculated.

4.4 Results of the *Site-Specific Cleanup Criteria* Evaluation

The following tables (4-5 and 4-6) summarize the *Site-Specific Cleanup Criteria* (SSCC) that were developed for those chemical constituents that exceeded MDEQ *Generic Cleanup Criteria*. These tables provide the

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exposure point concentration for each chemical constituent, along with the AOC and the SSCC value for both the production and non-production area of the site.

TABLE 4-5
PRODUCTION AREA
SOIL

Area of Concern and Chemical of Concern	Exposure Point Concentration (mg/kg)	Site-Specific Cleanup Criteria - IPSIC (mg/kg)		
		Maintenance Worker	Maintenance Worker: No Vehicle Contact with Impacted Soils	Intrusive Workers
Former CTC Parking Lot East of Main Plant				
Manganese (beneath clean fill)	11,600 [1]	2,300*	17,000	12,000
Previous Metal Feedstock Area				
Manganese (surface)	6,140[1]	2,300*	17,000	
Manganese (soil column)	7,410[2]			12,000
Former Railyard Area				
Manganese (surface)	3,540[2]	2,300*	17,000	
Manganese (soil column)	3,770[2]			12,000
Parking Lot North of Buffer Basin				
Manganese (soil column)	11,900[1]			12,000

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Notes:
[1] = Maximum concentration.
[2] = 95% UCL concentration.
* = PSIC SSCC with vehicular traffic. The PSIC SSCC without vehicular traffic is 17,000 mg/kg.

For a conservative comparison, although not considered in the original HHE (BBL, 2003), the manganese concentrations in the former CTC Parking Lot East of the Main Plant and in the former Railyard Area were compared to the SSCC values for the maintenance worker (2,300 mg/kg for manganese). Given that these areas have been modified since the original assessment (e.g., the asphalt has been removed in the former parking area and the Railyard is no longer active), it is possible the maintenance worker would be present performing routine maintenance activities. The surface soil concentrations in the Previous Metal Feedstock Area were also compared to the maintenance worker SSCC value as a conservative measure. The surface soil exposure point concentrations present in all three areas exceeded the SSCC for the maintenance worker. To ensure protection of human health, the deed restriction proposed in the draft RAP, which places restrictions on intrusive activities in this area, has been modified to also prevent the construction of roadways without cover over them (6 inches of gravel or paving will be required). The resulting SSCC without vehicle traffic is 17,000 mg/kg, which is well above the exposure point concentrations in these areas.

The soil column exposure point concentrations did not exceed the SSCC PSIC criteria in any of the production areas of interest.

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TABLE 4-7
NONPRODUCTION AREA
SOIL

Area of Concern And Chemical Constituent	Exposure Point Concentration [1] (mg/kg)	Site-Specific Cleanup Criteria - IPSIC (mg/kg)
Saginaw River Berm		
Manganese (surface)	2,330 [1]	2,300*
Manganese (subsurface)	5,800 [1]	12,000

Notes:
[1] = 95% UCL concentration.
* = PSIC SSCC with vehicular traffic. The PSIC SSCC without vehicular traffic is 17,000 mg/kg.

The manganese surface soil exposure point concentration in the Saginaw River Berm Area is slightly above the SSCCs for maintenance workers. The soil column exposure point concentration is below the intrusive work PSIC SSCC. To ensure protection of human health, the deed restriction proposed in the draft RAP, which places restrictions on intrusive activities in this area, has been modified to also prevent the construction of roadways without a cover (6 inches of gravel or paving will be required). The resulting SSCC without vehicle traffic is 17,000 mg/kg, which is well above the exposure point concentrations in these areas.

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4.5 Summary of the *Site-Specific Cleanup Criteria* Evaluation

The exposure point concentrations for surface soils in the Former Railyard Area, the Former CTC Parking Lot, and the Previous Metal Feedstock Area exceed the SSCC for maintenance workers with the generic assumptions for vehicle traffic. To ensure protection of human health, the deed restriction proposed in the draft RAP, which places restrictions on intrusive activities in this area, was modified to also prevent the construction of roadways without a cover (6 inches of gravel or paving will be required). The resulting SSCC without vehicle traffic is 17,000 mg/kg, which is well above the exposure point concentrations for surface soils in these areas.

In addition, in the Former CTC Parking Lot Area, subsequent to removal of the asphalt, 8 inches of clean fill were added to the area, and as a result the surficial soil concentrations are likely overestimated. The presence of the 8-inch clean soil barrier and the grass cover limit the exposure by the maintenance worker. Maintenance of these conditions is addressed in the RAP.

The subsurface soils in the Parking Lot North of the Buffer Basin exceeded the maintenance worker SSCC for PSIC. Therefore, the cover over this area must be maintained to prevent maintenance workers from exposure to this soil. Maintenance of the cover is addressed in the RAP and in the proposed restrictive covenants.

The exposure point concentrations for the soil column in the areas of interest do not exceed the SSCC for intrusive workers. Therefore, no additional deed restrictions need to be added to those proposed in the RAP.

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4.6 PCBs

Additional samples have been collected and analyzed for PCBs since the original HHE was completed (BBBL , 2003). PCBs were not detected at levels greater than the 16 ppm MDEQ Industrial Direct Contact criteria or the site-specific Direct Contact Criterion of 60 ppm. This is addressed in the 2006 letter to MDEQ and the data are presented in the RAP. No additional evaluation was completed in this Addendum.

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5. References

Blasland, Bouck & Lee, Inc. (BBL). 2001. *General Motors Corporation Saginaw Malleable Iron Plant Property, and REALM, Inc. Green Point Landfill and Drum Remediation Area. Saginaw, Michigan. Final Remedial Investigation Report*, July 5, 2001.

BBL. 2003. *General Motors Corporation Saginaw Malleable Iron Plant Property, and REALM, Inc. Green Point Landfill and Drum Remediation Area. Saginaw, Michigan. Feasibility Study Report*, July 29, 2003.

BBL. 2003. *General Motors Corporation Saginaw Malleable Iron Plant Property, and REALM, Inc. Green Point Landfill and Drum Remediation Area, Saginaw, Michigan Human Health Evaluation Report*, July 29, 2003.

BBL. 2006. letter from GM REALM to Mr. Allan Brouillet of the Remediation and Redevelopment Division of MDEQ. March 24th.

Brouillet, B. (MDEQ, RRD). 2003. Letter to Ms. Cheryl Hiatt (GM WFG-Remediation). Re: Approval of Final Feasibility Study Report for SMI/Green Point Landfill. November 18, 2003.

Coffey, L. (Blasland, Bouck & Lee, Inc.). 2005. Memo to J. Tegen (GM). Re: Excavation of paving and fill placement at the Former Casting Technology Center (CTC) Parking Lot at the GM Saginaw Malleable Iron Plant in Saginaw, Michigan. September 20, 2005.

Conestoga-Rovers & Associates (CRA). 2005. *Summary of Interim Response Activities Associated With East/West Ditch Filling and Removal of Manganese Impacted Soil in Saginaw River Berm, GMPT SMI*. General Motors Powertrain, Saginaw Malleable Iron Plant, Saginaw, Michigan. September, 2005.

CRA. 2005. *Summary of Interim Response Activities Associated with East/West Ditch Filling and Removal of Manganese Impacted Soil in Saginaw River Berm, GMPT SMI*

CRA. 1997. Melting Department Area Investigation and Remediation Report. April.

Michigan Department of Environmental Quality (MDEQ) Remediation and Redevelopment Division (RRD). 2004. *Operational Memorandum #1. Part 201 Cleanup Criteria. Part 213 Risk-based Screening Levels.* December 10, 2004.

United States Environmental Protection Agency (USEPA). 1989. *Risk Assessment Guidance for Superfund (RAGS), Volume I Human Health Evaluation Manual, Part A. Interim Final*. Office of Emergency and Remedial Response Washington DC. EPA/540/1-89/002. December 1989.

USEPA. 1992. *Supplemental Guidance to RAGS: Calculating the Concentration Term*. Office of Solid Waste and Emergency Response Washington DC. Publication 9285.7-081. May 1992.

USEPA. 1997. *Exposure Factors Handbook Volume 1: General Factors.* Office of Research and Development Washington DC. EPA/600/P-95/002Fa. August 1997.

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Attachment I

Soil Screening Tables for Generic MDEQ Criteria

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TABLE I-1

SUMMARY OF VOLATILE ORGANIC COMPOUNDS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	Units	Soil Saturation Concentration Screening Levels (CSAT)	Groundwater Contact Protection (GCCP)	Groundwater Surface Water Interface Protection (GSIP)	Industrial Direct Contact (IDC)	Industrial Drinking Water Protection (IDWP)	Industrial Particulate Soil Inhalation Criteria (IPSIC)	Industrial Soil Volatilization to Indoor Air Inhalation (ISVIA)	Finite VSIC for 2 Meter Source Thickness (IVSIC2)	Finite VSIC for 5 Meter Source Thickness (IVSIC5)	Infinite Source Volatile Soil Inhalation Criteria (IVSICI)	Residential Drinking Water Protection (RDWP)	Minimum Criteria
Volatile Organics													
1,1,1,2-Tetrachloroethane	mg/kg	440	440		440	6.4	530,000	33	330	210	120	1.5	1.50
1,1,1-Trichloroethane	mg/kg	460	460	4	460	4	29,000,000	460	31,000	15,000	4,500	4	4.00
1,1,2,2-Tetrachloroethane	mg/kg	870	94	1.6	240	0.7	68,000	23	34	34	34	0.17	0.17
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	550	550	1.7	550	550	2,300,000,000	550	2,100,000	890,000	210,000	550	1.70
1,1,2-Trichloroethane	mg/kg	920	420	6.6	840	0.1	250,000	24	120	57	57	0.1	0.10
1,1-Dichloroethane	mg/kg	890	890	15	890	50	15,000,000	430	14,000	6,000	2,500	18	15.00
1,1-Dichloroethene	mg/kg	570	220	1.3	570	0.14	78000	0.33	37	15	3.7	0.14	0.14
1,2,3-Trichloropropane	mg/kg	830	830		830	2.4						0.84	0.84
1,2,4-Trichlorobenzene	mg/kg	1,100	1,100	1.8	1100	4.2	11,000,000	1100	34,000	34,000	34,000	4.2	1.80
1,2,4-Trimethylbenzene	mg/kg	110	110	0.57	110	2.1	36000000	110	600000	600000	25000	2.1	0.57
1,2-Dibromo-3-chloropropane	mg/kg	1.2	1.2		1.2	0.01	5,900	1.2	15	15	15	0.01	0.01
1,2-Dibromoethane	mg/kg	890	0.5	0.02	0.43	0.02	18,000	3.6	9.8	5.8	5.8	0.02	0.02
1,2-Dichlorobenzene	mg/kg	210	210	0.36	210	14	44,000,000	210	55,000	46,000	46,000	14	0.36
1,2-Dichloroethane	mg/kg	1200	380	7.2	420	0.1	150000	11	74	33	21	0.1	0.10
1,2-Dichloropropane	mg/kg	550	320	5.8	550	0.1	120000	7.4	120	51	30	0.1	0.10
1,3,5-Trimethylbenzene	mg/kg	94	94	1.1	94	1.8	36000000	94	460000	460000	19000	1.8	1.10
1,3-Dichlorobenzene	mg/kg	170	51	1.1	170	0.48						0.17	0.17
1,4-Dichlorobenzene	mg/kg		140	0.29	1,900	1.7	570,000	100	340	260	260	1.7	0.29
1,4-Dioxane	mg/kg	97000	34000	56	2400	7	710000					1.7	1.70
2-Butanone	mg/kg	27000	27000	44	27000	760	29000000	27000	36000	35000	35000	260	44.00
2-Chloro-1,3-butadiene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA
2-Hexanone	mg/kg	2,500	2500		2500	58	1,200,000	1,800	1,500	1,300	1,300	20	20.00
3-Chloropropene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA
4-Methyl-2-pentanone	mg/kg	2700	2700		2700	100	60000000	2700	70000	53000	53000	36	36.00
Acetone	mg/kg	110000	110000	34	73000	42	170000000	110000	200000	160000	160000	15	15.00
Acetonitrile	mg/kg	22,000	22000		14,000	8	1,800,000	8,800	2,200	1,900	1,900	2.8	2.80
Acrolein	mg/kg	23000	23000		12000	6.6	590	0.76	0.63	0.37	0.37	2.4	0.37
Acrylonitrile	mg/kg	8300	280	0.1	74	0.22	58000	35	31	17	17	0.1	0.10
Benzene	mg/kg	400	220	4	400	0.1	470000	8.4	230	99	45	0.1	0.10
Bromodichloromethane	mg/kg	1,500	280		490	1.6	110,000	6.4	57	31	31	1.6	1.60
Bromoform	mg/kg	870	870		870	1.6	3,600,000	770	3,100	3,100	3,100	1.6	1.60
Bromomethane	mg/kg	2,200	1,400	0.7	1,000	0.58	150,000	1.6	140	57	13	0.2	0.20
Carbon Disulfide	mg/kg	280	280		280	46	21000000	140	19000	8000	1600	16	16.00
Carbon Tetrachloride	mg/kg	390	92	0.9	390	0.1	170,000	0.99	79	34	12	0.1	0.10
Chlorobenzene	mg/kg	260	260	0.94	260	2	2100000	220	2100	1100	920	2	0.94
Chloroethane	mg/kg	950	950		950	34	290,000,000	950	280,000	120,000	36,000	8.6	8.60
Chloroform	mg/kg	1,500	1500	3.4	1500	1.6	1,600,000	38	790	340	150	1.6	1.60
Chloromethane	mg/kg	1100	1100		1100	22	2600000	10	2500	1000	120	5.2	5.20
cis-1,2-Dichloroethene	mg/kg	640	640	12	640	1.4	1,000,000	41	1,000	430	210	1.4	1.40

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TABLE I-1
SUMMARY OF VOLATILE ORGANIC COMPOUNDS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	Units	Soil Saturation Concentration Screening Levels (CSAT)	Groundwater Contact Protection (GCCP)	Groundwater Surface Water Interface Protection (GSIP)	Industrial Direct Contact (IDC)	Industrial Drinking Water Protection (IDWP)	Industrial Particulate Soil Inhalation Criteria (IPSIC)	Industrial Soil Volatilization to Indoor Air Inhalation (ISVIA)	Finite VSIC for 2 Meter Source Thickness (IVSIC2)	Finite VSIC for 5 Meter Source Thickness (IVSIC5)	Infinite Source Volatile Soil Inhalation Criteria (IVSICI)	Residential Drinking Water Protection (RDWP)	Minimum Criteria
Volatile Organics													
trans-1,2-Dichloroethene	mg/kg	1,400	1400	30	1400	2	2,100,000	43	2,000	840	330	2	2.00
1,2-Dichloroethene (total)	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA
cis-1,3-Dichloropropene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA
trans-1,3-Dichloropropene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA
Total 1,3-Dichloropropenes	mg/kg	620	110		240	0.7	590,000	5.4	470	200	60	0.17	0.17
Cyclohexane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA
Dibromochloromethane	mg/kg	610	360		500	1.6	160,000	21	98	80	80	1.6	1.60
Dibromomethane	mg/kg	2,000	2000		2000	4.6						1.6	1.60
Dichlorodifluoromethane	mg/kg	1,000	1000		1000	270	1,500,000,000	1,700	1,400,000	550,000	63,000	95	95.00
Ethyl Methacrylate	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA
Ethylbenzene	mg/kg	140	140	0.36	140	1.5	13000000	140	6500	3100	2400	1.5	0.36
Iodomethane	mg/kg	- -	- -				- -	- -	- -	- -	- -	- -	NA
Isobutanol	mg/kg	8900	8900		8900	130	44000000	8900	95000	95000	95000	46	46.00
Isopropylbenzene	mg/kg	390	390		390	260	2,600,000	390	3,000	2,000	2,000	91	91.00
Methacrylonitrile	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA
Methyl acetate	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA
Methyl cyclohexane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA
Methyl Methacrylate	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA
Methyl tert-butyl ether	mg/kg	5,900	5900	15	5900	0.8	88,000,000	5900	89,000	41,000	30,000	0.8	0.80
Methylene Chloride	mg/kg	2,300	2300	19	2300	0.1	8,300,000	240	4,000	1,700	700	0.1	0.10
Propionitrile	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA
Styrene	mg/kg	520	270	2.2	520	2.7	6,900,000	520	4,200	3,300	3,300	2.7	2.20
Tetrachloroethene	mg/kg	88	88	0.9	88	0.1	6,800,000	60	3,300	1,400	600	0.1	0.10
Toluene	mg/kg	250	250	2.8	250	16	12000000	250	36000	36000	3300	16	2.80
trans-1,4-Dichloro-2-butene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA
Trichloroethene	mg/kg	500	440	4	500	0.1	2,300,000	37	1,100	440	260	0.1	0.10
Trichlorofluoromethane	mg/kg	560	560		560	150	1,700,000,000	560	140,000,000	140,000,000	110,000	52	52.00
Vinyl Acetate	mg/kg	2400	2400		2400	36	5900000	1500	5900	2700	2000	13	13.00
Vinyl Chloride	mg/kg	490	20	0.3	34	0.04	890,000	2.8	420	170	29	0.04	0.04
Total Xylenes	mg/kg	150	150	0.7	150	5.6	130000000	150	130000	65000	54000	5.6	0.70

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SUMMARY OF VOLATILE ORGANIC COMPOUNDS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	Screening Level	Maximum Concentration	Maximum Concentration Exceeds Screening Level?	Center Street Area M-145T 7 - 17 06/08/95	Center Street Area SB-319 14 - 16 06/13/95	Central Type III Landfill SB-312 8 - 10 06/06/95	CTC Parking Lot PL-1 0.75 - 1.21 08/10/01	CTC Parking Lot PL-2 0.75 - 1.67 08/10/01	CTC Parking Lot PL-3 0.67 - 1.67 08/10/01	CTC Parking Lot PL-4 0.75 - 1.5 08/10/01	CTC Parking Lot VE-1 0.75 - 1.58 08/10/01	CTC Parking Lot VE-2 0.92 - 1.67 08/10/01
Volatile Organics												
1,1,1,2-Tetrachloroethane	1.50	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	4.00	ND	No/ND	<0.0066	<0.0065	<0.0062	<0.0060	<0.0050 [<0.0060]	<0.0060	<0.0060	<0.0060	<0.0060
1,1,2,2-Tetrachloroethane	0.17	ND	No/ND	<0.0066	<0.0065	<0.0062	<0.0060	<0.0050 [<0.0060]	<0.0060	<0.0060	<0.0060	<0.0060
1,1,2-trichloro-1,2,2-trifluoroethane	1.70	ND	No/ND	NA	NA	NA	<0.0060	<0.0050 [<0.0060]	<0.0060	<0.0060	<0.0060	<0.0060
1,1,2-Trichloroethane	0.10	ND	No/ND	<0.0066	<0.0065	<0.0062	<0.0060	<0.0050 [<0.0060]	<0.0060	<0.0060	<0.0060	<0.0060
1,1-Dichloroethane	15.00	0.0058	No	<0.0066	<0.0065	<0.0062	<0.0060	<0.0050 [<0.0060]	<0.0060	<0.0060	<0.0060	<0.0060
1,1-Dichloroethene	0.14	ND	No/ND	<0.0066	<0.0065	<0.0062	<0.0060	<0.0050 [<0.0060]	<0.0060	<0.0060	<0.0060	<0.0060
1,2,3-Trichloropropane	0.84	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	1.80	ND	No/ND	NA	NA	NA	<0.0060	NA	<0.0060	<0.0060	<0.0060	<0.0060
1,2,4-Trimethylbenzene	0.57	84	Yes	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	0.01	ND	No/ND	NA	NA	NA	<0.0060	<0.0050 [<0.0060]	<0.0060	<0.0060	<0.0060	<0.0060
1,2-Dibromoethane	0.02	ND	No/ND	NA	NA	NA	<0.0060	<0.0050 [<0.0060]	<0.0060	<0.0060	<0.0060	<0.0060
1,2-Dichlorobenzene	0.36	ND	No/ND	<0.0066	<0.0065	<0.0062	<0.0060	<0.0050 [<0.0060]	<0.0060	<0.0060	<0.0060	<0.0060
1,2-Dichloroethane	0.10	ND	No/ND	<0.0066	<0.0065	<0.0062	<0.0060	<0.0050 [<0.0060]	<0.0060	<0.0060	<0.0060	<0.0060
1,2-Dichloropropane	0.10	ND	No/ND	<0.0066	<0.0065	<0.0062	<0.0060	<0.0050 [<0.0060]	<0.0060	<0.0060	<0.0060	<0.0060
1,3,5-Trimethylbenzene	1.10	18	Yes	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	0.17	ND	No/ND	<0.0066	<0.0065	<0.0062	<0.0060	<0.0050 [<0.0060]	<0.0060	<0.0060	<0.0060	<0.0060
1,4-Dichlorobenzene	0.29	ND	No/ND	<0.0066	<0.0065	<0.0062	<0.0060	NA	<0.0060	<0.0060	<0.0060	<0.0060
1,4-Dioxane	1.70	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	44.00	0.080	No	0.0056	0.024	<0.062	<0.0060	<0.0050 [<0.0060]	<0.0060	<0.0060	<0.0060	<0.0060
2-Chloro-1,3-butadiene	NA	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	20.00	0.0033	No	<0.066	<0.065	<0.062	<0.0060	<0.0050 [<0.0060]	<0.0060	<0.0060	<0.0060	<0.0060
3-Chloropropene	NA	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	36.00	ND	No/ND	<0.066	<0.065	<0.062	<0.0060	<0.0050 [<0.0060]	<0.0060	<0.0060	<0.0060	<0.0060
Acetone	15.00	5.0	No	0.025	0.085	0.05	<0.013	<0.011 [<0.012]	<0.011	<0.011	<0.012	<0.011
Acetonitrile	2.80	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	0.37	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	0.10	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	0.10	21	Yes	<0.0066	<0.0065	<0.0062	<0.0060	<0.0050 [<0.0060]	<0.0060	<0.0060	<0.0060	<0.0060
Bromodichloromethane	1.60	0.0038	No	<0.0066	<0.0065	<0.0062	<0.0060	<0.0050 [<0.0060]	<0.0060	<0.0060	<0.0060	<0.0060
Bromoform	1.60	ND	No/ND	<0.0066	<0.0065	<0.0062	<0.0060	<0.0050 [<0.0060]	<0.0060	<0.0060	<0.0060	<0.0060
Bromomethane	0.20	ND	No/ND	<0.0066	<0.0065	<0.0062	<0.0060	<0.0050 [<0.0060]	<0.0060	<0.0060	<0.0060	<0.0060
Carbon Disulfide	16.00	0.006	No	<0.0066	<0.0065	<0.0062	<0.0060	<0.0050 [<0.0060]	<0.0060	<0.0060	0.003	<0.0060
Carbon Tetrachloride	0.10	ND	No/ND	<0.0066	<0.0065	<0.0062	<0.0060	<0.0050 [<0.0060]	<0.0060	<0.0060	<0.0060	<0.0060
Chlorobenzene	0.94	ND	No/ND	<0.0066	<0.0065	<0.0062	<0.0060	<0.0050 [<0.0060]	<0.0060	<0.0060	<0.0060	<0.0060
Chloroethane	8.60	ND	No/ND	<0.0066	<0.0065	<0.0062	<0.0060	<0.0050 [<0.0060]	<0.0060	<0.0060	<0.0060	<0.0060
Chloroform	1.60	0.008	No	<0.0066	<0.0065	<0.0062	<0.0060	<0.0050 [<0.0060]	<0.0060	<0.0060	<0.0060	<0.0060
Chloromethane	5.20	2.5	No	<0.0066	<0.0065	<0.0062	<0.0060	<0.0050 [<0.0060]	<0.0060	<0.0060	<0.0060	<0.0060
cis-1,2-Dichloroethene	1.40	0.025	No	NA	NA	NA	<0.0060	<0.0050 [<0.0060]	<0.0060	<0.0060	<0.0060	<0.0060

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	Screening Level	Maximum Concentration	Maximum Concentration Exceeds Screening Level?	Center Street Area M-145T 7 - 17 06/08/95	Center Street Area SB-319 14 - 16 06/13/95	Central Type III Landfill SB-312 8 - 10 06/06/95	CTC Parking Lot PL-1 0.75 - 1.21 08/10/01	CTC Parking Lot PL-2 0.75 - 1.67 08/10/01	CTC Parking Lot PL-3 0.67 - 1.67 08/10/01	CTC Parking Lot PL-4 0.75 - 1.5 08/10/01	CTC Parking Lot VE-1 0.75 - 1.58 08/10/01	CTC Parking Lot VE-2 0.92 - 1.67 08/10/01
Volatile Organics												
trans-1,2-Dichloroethene	2.00	ND	No/ND	<0.0066	<0.0065	<0.0062	<0.0025	<0.0050 [<0.0060]	<0.0060	<0.0060	<0.0060	<0.0060
1,2-Dichloroethene (total)	NA	0.073	Yes/NA	<0.0066	<0.0065	<0.0062	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	NA	ND	No/ND	<0.0066	<0.0065	<0.0062	<0.0060	<0.0050 [<0.0060]	<0.0060	<0.0060	<0.0060	<0.0060
trans-1,3-Dichloropropene	NA	ND	No/ND	<0.0066	<0.0065	<0.0062	<0.0060	<0.0050 [<0.0060]	<0.0060	<0.0060	<0.0060	<0.0060
Total 1,3-Dichloropropenes	0.17	ND	No/ND	<0.0066	<0.0065	<0.0062	<0.0060	<0.0050 [<0.0060]	<0.0060	<0.0060	<0.0060	<0.0060
Cyclohexane	NA	0.41	Yes/NA	NA	NA	NA	<0.0060	<0.0050 [<0.0060]	<0.0060	<0.0060	<0.0060	<0.0060
Dibromochloromethane	1.60	0.0011	No	<0.0066	<0.0065	<0.0062	<0.0060	<0.0050 [<0.0060]	<0.0060	<0.0060	<0.0060	<0.0060
Dibromomethane	1.60	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	95.00	ND	No/ND	NA	NA	NA	<0.0060	<0.0050 [<0.0060]	<0.0060	<0.0060	<0.0060	<0.0060
Ethyl Methacrylate	NA	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	0.36	29	Yes	<0.0066	<0.0065	<0.0062	<0.0060	<0.0050 [0.0020]	<0.0060	<0.0060	0.016	<0.0060
Iodomethane	NA	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isobutanol	46.00	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	91.00	0.1000	No	NA	NA	NA	<0.0060	<0.0050 [<0.0060]	<0.0060	<0.0060	0.001	<0.0060
Methacrylonitrile	NA	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	NA	ND	No/ND	NA	NA	NA	<0.0060	<0.0050 [<0.0060]	<0.0060	<0.0060	<0.0060	<0.0060
Methyl cyclohexane	NA	0.9800	Yes/NA	NA	NA	NA	<0.0060	<0.0050 [<0.0060]	<0.0060	<0.0060	0.002	<0.0060
Methyl Methacrylate	NA	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	0.80	ND	No/ND	NA	NA	NA	<0.0060	<0.0050 [<0.0060]	<0.0060	<0.0060	<0.0060	<0.0060
Methylene Chloride	0.10	0.30	Yes	0.0049	<0.0065	0.0065	<0.0060	<0.0050 [<0.0060]	<0.0060	<0.0060	<0.0060	<0.0060
Propionitrile	NA	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	2.20	0.063	No	<0.0066	<0.0065	<0.0062	<0.0060	<0.0050 [<0.0060]	<0.0060	<0.0060	<0.0060	<0.0060
Tetrachloroethene	0.10	0.012	No	<0.0066	<0.0065	<0.0062	<0.0060	<0.0050 [<0.0060]	<0.0060	<0.0060	<0.0060	<0.0060
Toluene	2.80	6.40	Yes	0.024	<0.0065	0.0052	0.001	<0.0050 [0.0040]	<0.0060	0.0009	0.038	<0.0060
trans-1,4-Dichloro-2-butene	NA	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	0.10	0.055	No	<0.0066	<0.0065	<0.0062	<0.0060	<0.0050 [<0.0060]	<0.0060	<0.0060	<0.0060	<0.0060
Trichlorofluoromethane	52.00	ND	No/ND	NA	NA	NA	<0.010	<0.0050 [<0.0060]	<0.0060	<0.0060	<0.0060	<0.0060
Vinyl Acetate	13.00	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	0.04	ND	No/ND	<0.0066	<0.0065	<0.0062	<0.010	<0.0050 [<0.0060]	<0.0060	<0.0060	<0.0060	<0.0060
Total Xylenes	0.70	120	Yes	<0.0066	0.0089	<0.0062	0.002	<0.0050 [0.010]	<0.0060	<0.0060	0.079	<0.0060

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SUMMARY OF VOLATILE ORGANIC COMPOUNDS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area	Drum Remediation/ Wetland Area	Drum Remediation/ Wetland Area	Drum Remediation/ Wetland Area	Drum Remediation/ Wetland Area	Drum Remediation/ Wetland Area	Drum Remediation/ Wetland Area	Drum Remediation/ Wetland Area	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill
Location ID	M-126T	MB-1	MB-2	MB-3	MB-4	MB-5	MB-6	SB-313	SB-389	SB-390	SB-391	SB-392
Sample Depth (ft bgs):	14 - 16	3 - 3.5	3 - 3.5	5 - 5.5	0.5 - 1	0.5 - 1	4 - 4.5	4 - 6	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5
Date Collected:	02/08/95	01/22/97	01/22/97	01/22/97	01/22/97	01/22/97	01/22/97	06/07/95	08/11/00	08/11/00	08/11/00	08/11/00
Volatile Organics												
1,1,1,2-Tetrachloroethane	<0.0057	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	<0.0057	<0.0059	<0.0071	<0.0061	<0.0072	<0.0069	<0.0068	<0.0056	<0.0058	<0.0087	<0.0071	<0.0068
1,1,2,2-Tetrachloroethane	<0.0057	<0.0059	<0.0071	<0.0061	<0.0072	<0.0069	<0.0068	<0.0056	<0.0058	<0.0087	<0.0071	<0.0068
1,1,2-trichloro-1,2,2-trifluoroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	<0.0057	<0.0059	<0.0071	<0.0061	<0.0072	<0.0069	<0.0068	<0.0056	R	<0.0087	<0.0071	<0.0068
1,1-Dichloroethane	0.0058	<0.0059	<0.0071	<0.0061	<0.0072	<0.0069	<0.0068	<0.0056	<0.0058	<0.0087	<0.0071	<0.0068
1,1-Dichloroethene	<0.0057	<0.0059	<0.0071	<0.0061	<0.0072	<0.0069	<0.0068	<0.0056	<0.0058	<0.0087	<0.0071	<0.0068
1,2,3-Trichloropropane	<0.0057	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	<0.011	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	<0.0057	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	<0.0057	<0.0059	<0.0071	<0.0061	<0.0072	<0.0069	<0.0068	<0.0056	NA	NA	NA	NA
1,2-Dichloroethane	<0.0057	<0.0059	<0.0071	<0.0061	<0.0072	<0.0069	<0.0068	<0.0056	<0.0058	<0.0087	<0.0071	<0.0068
1,2-Dichloropropane	<0.0057	<0.0059	<0.0071	<0.0061	<0.0072	<0.0069	<0.0068	<0.0056	<0.0058	<0.0087	<0.0071	<0.0068
1,3,5-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	<0.0057	<0.0059	<0.0071	<0.0061	<0.0072	<0.0069	<0.0068	<0.0056	NA	NA	NA	NA
1,4-Dichlorobenzene	<0.0057	<0.0059	<0.0071	<0.0061	<0.0072	<0.0069	<0.0068	<0.0056	NA	NA	NA	NA
1,4-Dioxane	<1.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	<0.057	<0.059	<0.071	<0.061	<0.072	<0.069	<0.068	<0.056	<0.023	<0.035	<0.028	<0.027
2-Chloro-1,3-butadiene	<0.0057	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	<0.057	<0.059	<0.071	<0.061	<0.072	<0.069	<0.068	<0.056	R	<0.035	<0.028	<0.027
3-Chloropropene	<0.0057	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	<0.057	<0.059	<0.071	<0.061	<0.072	<0.069	<0.068	<0.056	<0.023	<0.035	<0.028	<0.027
Acetone	<0.020	<0.059	<0.071	<0.061	<0.072	<0.069	<0.068	0.0055	<0.023	<0.035	<0.028	<0.027
Acetonitrile	<0.057	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	<0.057	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	<0.057	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	<0.0057	<0.0059	<0.0071	<0.0061	<0.0072	<0.0069	<0.0068	0.0024	<0.0058	<0.0087	<0.0071	<0.0068
Bromodichloromethane	<0.0057	<0.0059	<0.0071	<0.0061	<0.0072	<0.0069	<0.0068	<0.0056	<0.0058	<0.0087	<0.0071	<0.0068
Bromoform	<0.0057	<0.0059	<0.0071	<0.0061	<0.0072	<0.0069	<0.0068	<0.0056	R	<0.0087	<0.0071	<0.0068
Bromomethane	<0.0057	<0.0059	<0.0071	<0.0061	<0.0072	<0.0069	<0.0068	<0.0056	<0.012	<0.017	<0.014	<0.014
Carbon Disulfide	<0.0057	<0.0059	<0.0071	<0.0061	<0.0072	<0.0069	<0.0068	<0.0056	<0.0058	<0.0087	<0.0071	<0.0068
Carbon Tetrachloride	<0.0057	<0.0059	<0.0071	<0.0061	<0.0072	<0.0069	<0.0068	<0.0056	<0.0058	<0.0087	<0.0071	<0.0068
Chlorobenzene	<0.0057	<0.0059	<0.0071	<0.0061	<0.0072	<0.0069	<0.0068	<0.0056	R	<0.0087	<0.0071	<0.0068
Chloroethane	<0.0057	<0.0059	<0.0071	<0.0061	<0.0072	<0.0069	<0.0068	<0.0056	<0.012	<0.017	<0.014	<0.014
Chloroform	<0.0057	<0.0059	<0.0071	<0.0061	<0.0072	<0.0069	<0.0068	<0.0056	<0.0058	<0.0087	<0.0071	<0.0068
Chloromethane	<0.0057	<0.0059	<0.0071	<0.0061	<0.0072	<0.0069	<0.0068	<0.0056	<0.012	<0.017	<0.014	<0.014
cis-1,2-Dichloroethene	0.025	0.0074	<0.0071	<0.0061	<0.0072	<0.0069	<0.0068	NA	NA	NA	NA	NA

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TABLE I-1
SUMMARY OF VOLATILE ORGANIC COMPOUNDS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area	Drum Remediation/ Wetland Area	Drum Remediation/ Wetland Area	Drum Remediation/ Wetland Area	Drum Remediation/ Wetland Area	Drum Remediation/ Wetland Area	Drum Remediation/ Wetland Area	Drum Remediation/ Wetland Area	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill
Location ID	M-126T	MB-1	MB-2	MB-3	MB-4	MB-5	MB-6	SB-313	SB-389	SB-390	SB-391	SB-392
Sample Depth (ft bgs):	14 - 16	3 - 3.5	3 - 3.5	5 - 5.5	0.5 - 1	0.5 - 1	4 - 4.5	4 - 6	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5
Date Collected:	02/08/95	01/22/97	01/22/97	01/22/97	01/22/97	01/22/97	01/22/97	06/07/95	08/11/00	08/11/00	08/11/00	08/11/00
Volatile Organics												
trans-1,2-Dichloroethene	<0.0057	<0.0059	<0.0071	<0.0061	<0.0072	<0.0069	<0.0068	<0.0056	NA	NA	NA	NA
1,2-Dichloroethene (total)	0.025	NA	NA	NA	NA	NA	NA	<0.0056	<0.0058	<0.0087	<0.0071	<0.0068
cis-1,3-Dichloropropene	<0.0057	<0.0059	<0.0071	<0.0061	<0.0072	<0.0069	<0.0068	<0.0056	<0.0058	<0.0087	<0.0071	<0.0068
trans-1,3-Dichloropropene	<0.0057	<0.0059	<0.0071	<0.0061	<0.0072	<0.0069	<0.0068	<0.0056	R	<0.0087	<0.0071	<0.0068
Total 1,3-Dichloropropenes	<0.0057	<0.0059	<0.0071	<0.0061	<0.0072	<0.0069	<0.0068	<0.0056	<0.0058	<0.0087	<0.0071	<0.0068
Cyclohexane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	<0.0057	<0.0059	<0.0071	<0.0061	<0.0072	<0.0069	<0.0068	<0.0056	<0.0058	<0.0087	<0.0071	<0.0068
Dibromomethane	<0.0057	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	<0.0057	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	<0.0057	<0.0059	<0.0071	<0.0061	<0.0072	<0.0069	<0.0068	<0.0056	R	<0.0087	<0.0071	<0.0068
Iodomethane	<0.011	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isobutanol	<0.57	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	<0.023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	<0.0057	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	0.018	<0.0059	<0.0071	<0.0061	<0.0072	<0.0069	<0.0068	0.0041	0.086	0.02	<0.0071	<0.0068
Propionitrile	<0.023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	<0.0057	<0.0059	<0.0071	<0.0061	<0.0072	<0.0069	<0.0068	<0.0056	R	<0.0087	<0.0071	<0.0068
Tetrachloroethene	<0.0057	<0.0059	<0.0071	<0.0061	<0.0072	<0.0069	<0.0068	<0.0056	R	<0.0087	<0.0071	<0.0068
Toluene	<0.0057	<0.0059	<0.0071	<0.0061	<0.0072	<0.0069	<0.0068	<0.0056	R	<0.0087	<0.0071	<0.0068
trans-1,4-Dichloro-2-butene	<0.0057	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	<0.0057	<0.0059	<0.0071	<0.0061	<0.0072	<0.0069	<0.0068	<0.0056	<0.0058	<0.0087	<0.0071	<0.0068
Trichlorofluoromethane	<0.0057	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Acetate	<0.057	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	<0.0057	<0.0059	<0.0071	<0.0061	<0.0072	<0.0069	<0.0068	<0.0056	<0.012	<0.017	<0.014	<0.014
Total Xylenes	<0.0057	<0.0059	<0.0071	<0.0061	<0.0072	<0.0069	<0.0068	0.011	R	<0.0087	<0.0071	<0.0068

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TABLE I-1

SUMMARY OF VOLATILE ORGANIC COMPOUNDS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	LNAPL Assessment Area
Location ID	SB-393	SB-394	SB-395	SB-396	SB-397	SB-398	SB-399	SB-400	SB-406	SB-412	SB-418	SB-01A
Sample Depth (ft bgs):	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	1 - 3
Date Collected:	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/23/01
Volatile Organics												
1,1,1,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	<0.0067	<0.0067	<0.0067	<0.015	<0.0070	<0.0061	<0.0062	<0.0080	<0.0054	<0.0088	<0.0066 [<0.0069]	<0.0053
1,1,2,2-Tetrachloroethane	<0.0067	<0.0067	<0.0067	<0.015	<0.0070	<0.0061	<0.0062	<0.0080	<0.0054	<0.0088	<0.0066 [<0.0069]	<0.0053
1,1,2-trichloro-1,2,2-trifluoroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	<0.0067	<0.0067	<0.0067	R	<0.0070	<0.0061	<0.0062	<0.0080	R	<0.0088	<0.0066 [<0.0069]	<0.0053
1,1-Dichloroethane	0.0039	<0.0067	<0.0067	<0.015	<0.0070	<0.0061	<0.0062	<0.0080	<0.0054	<0.0088	<0.0066 [<0.0069]	<0.0053
1,1-Dichloroethene	<0.0067	<0.0067	<0.0067	<0.015	<0.0070	<0.0061	<0.0062	<0.0080	<0.0054	<0.0088	<0.0066 [<0.0069]	<0.0053
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	<0.0067	<0.0067	<0.0067	<0.015	<0.0070	<0.0061	<0.0062	<0.0080	<0.0054	<0.0088	<0.0066 [<0.0069]	<0.0053
1,2-Dichloropropane	<0.0067	<0.0067	<0.0067	<0.015	<0.0070	<0.0061	<0.0062	<0.0080	<0.0054	<0.0088	<0.0066 [<0.0069]	<0.0053
1,3,5-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dioxane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	<0.027	<0.027	<0.027	<0.061	<0.028	<0.024	<0.025	<0.032	<0.022	<0.035	<0.026 [<0.028]	<0.0050
2-Chloro-1,3-butadiene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	<0.027	<0.027	<0.027	R	<0.028	<0.024	<0.025	<0.032	R	<0.035	<0.026 [<0.028]	<0.0050
3-Chloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	<0.027	<0.027	<0.027	<0.061	<0.028	<0.024	<0.025	<0.032	<0.022	<0.035	<0.026 [<0.028]	<0.0050
Acetone	<0.027	<0.027	<0.027	<0.061	<0.028	<0.024	<0.025	<0.032	<0.022	<0.035	<0.026 [<0.028]	<0.011
Acetonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	<0.0067	<0.0067	<0.0067	<0.015	<0.0070	<0.0061	<0.0062	<0.0080	<0.0054	<0.0088	<0.0066 [<0.0069]	<0.0053
Bromodichloromethane	<0.0067	<0.0067	<0.0067	<0.015	<0.0070	<0.0061	<0.0062	<0.0080	<0.0054	<0.0088	<0.0066 [<0.0069]	<0.0053
Bromoform	<0.0067	<0.0067	<0.0067	R	<0.0070	<0.0061	<0.0062	<0.0080	R	<0.0088	<0.0066 [<0.0069]	<0.0053
Bromomethane	<0.013	<0.013	<0.013	<0.031	<0.014	<0.012	<0.012	<0.016	<0.011	<0.018	<0.013 [<0.014]	<0.0050
Carbon Disulfide	<0.0067	<0.0067	<0.0067	<0.015	<0.0070	<0.0061	<0.0062	<0.0080	<0.0054	<0.0088	<0.0066 [<0.0069]	<0.0053
Carbon Tetrachloride	<0.0067	<0.0067	<0.0067	<0.015	<0.0070	<0.0061	<0.0062	<0.0080	<0.0054	<0.0088	<0.0066 [<0.0069]	<0.0053
Chlorobenzene	<0.0067	<0.0067	<0.0067	R	<0.0070	<0.0061	<0.0062	<0.0080	R	<0.0088	<0.0066 [<0.0069]	<0.0053
Chloroethane	<0.013	<0.013	<0.013	<0.031	<0.014	<0.012	<0.012	<0.016	<0.011	<0.018	<0.013 [<0.014]	<0.0050
Chloroform	<0.0067	<0.0067	<0.0067	<0.015	<0.0070	<0.0061	<0.0062	<0.0080	<0.0054	<0.0088	<0.0066 [<0.0069]	<0.0053
Chloromethane	<0.013	<0.013	<0.013	<0.031	<0.014	<0.012	<0.012	<0.016	<0.011	<0.018	<0.013 [<0.014]	<0.0050
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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SUMMARY OF VOLATILE ORGANIC COMPOUNDS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	Green Point Landfill SB-393 0 - 0.5 08/11/00	Green Point Landfill SB-394 0 - 0.5 08/11/00	Green Point Landfill SB-395 0 - 0.5 08/11/00	Green Point Landfill SB-396 0 - 0.5 08/11/00	Green Point Landfill SB-397 0 - 0.5 08/11/00	Green Point Landfill SB-398 0 - 0.5 08/11/00	Green Point Landfill SB-399 0 - 0.5 08/11/00	Green Point Landfill SB-400 0 - 0.5 08/11/00	Green Point Landfill SB-406 0 - 0.5 08/11/00	Green Point Landfill SB-412 0 - 0.5 08/11/00	Green Point Landfill SB-418 0 - 0.5 08/11/00	LNAPL Assessment Area SB-01A 1 - 3 08/23/01
Volatile Organics												
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	0.031	<0.0067	<0.0067	<0.015	<0.0070	<0.0061	<0.0062	<0.0080	<0.0054	<0.0088	<0.0066 [<0.0069]	<0.0053
cis-1,3-Dichloropropene	<0.0067	<0.0067	<0.0067	<0.015	<0.0070	<0.0061	<0.0062	<0.0080	<0.0054	<0.0088	<0.0066 [<0.0069]	<0.0053
trans-1,3-Dichloropropene	<0.0067	<0.0067	<0.0067	R	<0.0070	<0.0061	<0.0062	<0.0080	R	<0.0088	<0.0066 [<0.0069]	<0.0053
Total 1,3-Dichloropropenes	<0.0067	<0.0067	<0.0067	<0.015	<0.0070	<0.0061	<0.0062	<0.0080	<0.0054	<0.0088	<0.0066 [<0.0069]	<0.0053
Cyclohexane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	<0.0067	<0.0067	<0.0067	<0.015	<0.0070	<0.0061	<0.0062	<0.0080	<0.0054	<0.0088	<0.0066 [<0.0069]	<0.0053
Dibromomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	<0.0067	<0.0067	<0.0067	R	<0.0070	<0.0061	<0.0062	<0.0080	R	<0.0088	<0.0066 [<0.0069]	<0.0053
Iodomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isobutanol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	0.078	<0.0067	<0.0067	0.3	0.0047	0.022	0.0027	0.011	0.081	0.0036	<0.0066 [<0.0069]	<0.0053
Propionitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	<0.0067	<0.0067	<0.0067	R	<0.0070	<0.0061	<0.0062	<0.0080	R	<0.0088	<0.0066 [<0.0069]	<0.0053
Tetrachloroethene	<0.0067	<0.0067	<0.0067	R	<0.0070	<0.0061	<0.0062	<0.0080	R	<0.0088	<0.0066 [<0.0069]	<0.0053
Toluene	<0.0067	<0.0067	<0.0067	R	<0.0070	<0.0061	<0.0062	<0.0080	R	<0.0088	<0.0066 [<0.0069]	<0.0053
trans-1,4-Dichloro-2-butene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	0.0039	<0.0067	<0.0067	<0.015	<0.0070	<0.0061	<0.0062	<0.0080	<0.0054	<0.0088	<0.0066 [<0.0069]	<0.0053
Trichlorofluoromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	<0.013	<0.013	<0.013	<0.031	<0.014	<0.012	<0.012	<0.016	<0.011	<0.018	<0.013 [<0.014]	<0.0050
Total Xylenes	<0.0067	<0.0067	<0.0067	R	<0.0070	<0.0061	<0.0062	<0.0080	R	<0.0088	<0.0066 [<0.0069]	<0.0053

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TABLE I-1

SUMMARY OF VOLATILE ORGANIC COMPOUNDS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area
Location ID	SB-01A	SB-325	SB-362	SB-362	SB-362	SB-363	SB-363	SB-363	US-1	US-2	US-3	US-4
Sample Depth (ft bgs):	5 - 7	8 - 10	0 - 2	4 - 6	8 - 10	0 - 2	4 - 6	8 - 10	0 - 1	0 - 1	0 - 1	0 - 1
Date Collected:	08/23/01	06/14/95	09/28/95	09/28/95	09/28/95	09/28/95	09/28/95	09/28/95	06/12/95	06/12/95	06/12/95	06/12/95
Volatile Organics												
1,1,1,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	<0.0053	<0.0060	<0.0059	<0.011	<0.031	<0.0056	<0.0055	<0.0061	<0.0063	<0.0054	<0.0053	<0.0053
1,1,2,2-Tetrachloroethane	<0.0053	<0.0060	<0.0059	<0.011	<0.031	<0.0056	<0.0055	<0.0061	<0.0063	<0.0054	<0.0053	<0.0053
1,1,2-trichloro-1,2,2-trifluoroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	<0.0053	<0.0060	<0.0059	<0.011	<0.031	<0.0056	<0.0055	<0.0061	<0.0063	<0.0054	<0.0053	<0.0053
1,1-Dichloroethane	<0.0053	<0.0060	<0.0059	<0.011	<0.031	<0.0056	<0.0055	<0.0061	<0.0063	<0.0054	<0.0053	<0.0053
1,1-Dichloroethene	<0.0053	<0.0060	<0.0059	<0.011	<0.031	<0.0056	<0.0055	<0.0061	<0.0063	<0.0054	<0.0053	<0.0053
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	NA	<0.0060	<0.0059	<0.011	<0.031	<0.0056	<0.0055	<0.0061	<0.0063	<0.0054	<0.0053	<0.0053
1,2-Dichloroethane	<0.0053	<0.0060	<0.0059	<0.011	<0.031	<0.0056	<0.0055	<0.0061	<0.0063	<0.0054	<0.0053	<0.0053
1,2-Dichloropropane	<0.0053	<0.0060	<0.0059	<0.011	<0.031	<0.0056	<0.0055	<0.0061	<0.0063	<0.0054	<0.0053	<0.0053
1,3,5-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	<0.0060	<0.0059	<0.011	<0.031	<0.0056	<0.0055	<0.0061	<0.0063	<0.0054	<0.0053	<0.0053
1,4-Dichlorobenzene	NA	<0.0060	<0.0059	<0.011	<0.031	<0.0056	<0.0055	<0.0061	<0.0063	<0.0054	<0.0053	<0.0053
1,4-Dioxane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	<0.0050	0.013	<0.059	0.036	0.08	0.0034	<0.055	<0.061	0.0094	0.01	0.006	<0.053
2-Chloro-1,3-butadiene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	<0.0050	<0.060	0.0033	<0.11	<0.31	<0.056	<0.055	<0.061	<0.063	<0.054	<0.053	<0.053
3-Chloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	<0.0050	<0.060	<0.059	<0.11	<0.31	<0.056	<0.055	<0.061	<0.063	<0.054	<0.053	<0.053
Acetone	<0.011	0.073	<0.059	<0.11	0.3	0.1	0.038	<0.061	0.052	0.066	0.039	<0.053
Acetonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	<0.0053	0.067	<0.0059	<0.011	<0.031	0.0026	<0.0055	0.0075	<0.0063	<0.0054	<0.0053	<0.0053
Bromodichloromethane	<0.0053	<0.0060	<0.0059	<0.011	<0.031	<0.0056	<0.0055	<0.0061	<0.0063	<0.0054	<0.0053	<0.0053
Bromoform	<0.0053	<0.0060	<0.0059	<0.011	<0.031	<0.0056	<0.0055	<0.0061	<0.0063	<0.0054	<0.0053	<0.0053
Bromomethane	<0.0050	<0.0060	<0.0059	<0.011	<0.031	<0.0056	<0.0055	<0.0061	<0.0063	<0.0054	<0.0053	<0.0053
Carbon Disulfide	<0.0053	<0.0060	<0.0059	0.0056	<0.031	0.0043	<0.0055	<0.0061	<0.0063	<0.0054	<0.0053	<0.0053
Carbon Tetrachloride	<0.0053	<0.0060	<0.0059	<0.011	<0.031	<0.0056	<0.0055	<0.0061	<0.0063	<0.0054	<0.0053	<0.0053
Chlorobenzene	<0.0053	<0.0060	<0.0059	<0.011	<0.031	<0.0056	<0.0055	<0.0061	<0.0063	<0.0054	<0.0053	<0.0053
Chloroethane	<0.0050	<0.0060	<0.0059	<0.011	<0.031	<0.0056	<0.0055	<0.0061	<0.0063	<0.0054	<0.0053	<0.0053
Chloroform	<0.0053	<0.0060	<0.0059	<0.011	<0.031	<0.0056	<0.0055	<0.0061	<0.0063	<0.0054	<0.0053	<0.0053
Chloromethane	<0.0050	<0.0060	<0.0059	<0.011	<0.031	<0.0056	<0.0055	<0.0061	<0.0063	<0.0054	<0.0053	<0.0053
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE I-1

SUMMARY OF VOLATILE ORGANIC COMPOUNDS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area
Location ID	SB-01A	SB-325	SB-362	SB-362	SB-362	SB-363	SB-363	SB-363	US-1	US-2	US-3	US-4
Sample Depth (ft bgs):	5 - 7	8 - 10	0 - 2	4 - 6	8 - 10	0 - 2	4 - 6	8 - 10	0 - 1	0 - 1	0 - 1	0 - 1
Date Collected:	08/23/01	06/14/95	09/28/95	09/28/95	09/28/95	09/28/95	09/28/95	09/28/95	06/12/95	06/12/95	06/12/95	06/12/95
Volatile Organics												
trans-1,2-Dichloroethene	NA	<0.0060	<0.0059	<0.011	<0.031	<0.0056	<0.0055	<0.0061	<0.0063	<0.0054	<0.0053	<0.0053
1,2-Dichloroethene (total)	<0.0053	<0.0060	<0.0059	<0.011	<0.031	0.073	0.0049	<0.0061	<0.0063	<0.0054	<0.0053	<0.0053
cis-1,3-Dichloropropene	<0.0053	<0.0060	<0.0059	<0.011	<0.031	<0.0056	<0.0055	<0.0061	<0.0063	<0.0054	<0.0053	<0.0053
trans-1,3-Dichloropropene	<0.0053	<0.0060	<0.0059	<0.011	<0.031	<0.0056	<0.0055	<0.0061	<0.0063	<0.0054	<0.0053	<0.0053
Total 1,3-Dichloropropenes	<0.0053	<0.0060	<0.0059	<0.011	<0.031	<0.0056	<0.0055	<0.0061	<0.0063	<0.0054	<0.0053	<0.0053
Cyclohexane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	<0.0053	<0.0060	<0.0059	<0.011	<0.031	<0.0056	<0.0055	<0.0061	<0.0063	<0.0054	<0.0053	<0.0053
Dibromomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	<0.0053	0.027	<0.0059	<0.011	<0.031	0.0047	0.0045	0.014	<0.0063	<0.0054	<0.0053	<0.0053
Iodomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isobutanol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	<0.0053	<0.0060	0.0031	<0.011	<0.031	<0.0056	<0.0055	<0.0061	<0.0039	<0.0050	<0.0054	<0.014
Propionitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	<0.0053	0.063	<0.0059	<0.011	<0.031	<0.0056	<0.0055	0.0093	<0.0063	<0.0054	<0.0053	<0.0053
Tetrachloroethene	<0.0053	<0.0060	<0.0059	<0.011	<0.031	<0.0056	<0.0055	<0.0061	<0.0063	<0.0054	<0.0053	<0.0053
Toluene	<0.0053	0.1	<0.0059	0.019	0.017	0.074	0.083	0.042	0.017	0.018	<0.011	<0.0064
trans-1,4-Dichloro-2-butene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	<0.0053	<0.0060	<0.0059	<0.011	<0.031	0.009	<0.0055	<0.0061	<0.0063	<0.0054	<0.0053	<0.0053
Trichlorofluoromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	<0.0050	<0.0060	<0.0059	<0.011	<0.031	<0.0056	<0.0055	<0.0061	<0.0063	<0.0054	<0.0053	<0.0053
Total Xylenes	<0.0053	0.072	<0.0059	0.024	0.097	0.017	0.02	0.033	<0.0063	<0.0054	<0.0053	<0.0053

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SUMMARY OF VOLATILE ORGANIC COMPOUNDS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	LNAPL Assessment Area US-6 0 - 1 06/12/95	LNAPL Assessment Area US-7 0 - 1 06/12/95	LNAPL Assessment Area US-8 0 - 1 06/12/95	Parking Lot Area/Buffer Basin BH9 1 - 2 03/06/07	Parking Lot Area/Buffer Basin BH9 2 - 4 03/06/07	Parking Lot Area/Buffer Basin BH10 1 - 2 03/06/07	Parking Lot Area/Buffer Basin BH10 2 - 4 03/06/07	Parking Lot Area/Buffer Basin SB-354 0 - 2 06/28/95	Previous Metal Feedstock FS-1 0 - 1 06/12/95	Previous Metal Feedstock FS-2 0 - 1 06/12/95	Previous Metal Feedstock FS-3 0 - 1 06/12/95
Volatile Organics											
1,1,1,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	<0.0052	<0.0051	<0.0051	<0.046	<0.049	<0.041	<0.038	<0.0053	<0.0054	<0.0054	<0.0056
1,1,2,2-Tetrachloroethane	<0.0052	<0.0051	<0.0051	<0.046	<0.049	<0.041	<0.038	<0.0053	<0.0054	<0.0054	<0.0056
1,1,2-trichloro-1,2,2-trifluoroethane	NA	NA	NA	<0.23	<0.25	<0.21	<0.19	NA	NA	NA	NA
1,1,2-Trichloroethane	<0.0052	<0.0051	<0.0051	<0.046	<0.049	<0.041	<0.038	<0.0053	<0.0054	<0.0054	<0.0056
1,1-Dichloroethane	<0.0052	<0.0051	<0.0051	<0.046	<0.049	<0.041	<0.038	<0.0053	<0.0054	<0.0054	<0.0056
1,1-Dichloroethene	<0.0052	<0.0051	<0.0051	<0.046	<0.049	<0.041	<0.038	<0.0053	<0.0054	<0.0054	<0.0056
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	NA	NA	NA	<0.23	<0.25	<0.21	<0.19	NA	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	<0.23	<0.25	<0.21	<0.19	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	<0.23	<0.25	<0.21	<0.19	NA	NA	NA	NA
1,2-Dichlorobenzene	<0.0052	<0.0051	<0.0051	<0.092	<0.098	<0.082	<0.076	<0.0053	<0.0054	<0.0054	<0.0056
1,2-Dichloroethane	<0.0052	<0.0051	<0.0051	<0.046	<0.049	<0.041	<0.038	<0.0053	<0.0054	<0.0054	<0.0056
1,2-Dichloropropane	<0.0052	<0.0051	<0.0051	<0.046	<0.049	<0.041	<0.038	<0.0053	<0.0054	<0.0054	<0.0056
1,3,5-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	<0.0052	<0.0051	<0.0051	<0.092	<0.098	<0.082	<0.076	<0.0053	<0.0054	<0.0054	<0.0056
1,4-Dichlorobenzene	<0.0052	<0.0051	<0.0051	<0.092	<0.098	<0.082	<0.076	<0.0053	<0.0054	<0.0054	<0.0056
1,4-Dioxane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	<0.052	<0.051	<0.051	<0.69	<0.74	<0.62	<0.57	0.0037	<0.054	<0.054	<0.056
2-Chloro-1,3-butadiene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	<0.052	<0.051	<0.051	<2.3	<2.5	<2.1	<1.9	<0.053	<0.054	<0.054	<0.056
3-Chloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	<0.052	<0.051	<0.051	<2.3	<2.5	<2.1	<1.9	<0.053	<0.054	<0.054	<0.056
Acetone	<0.052	<0.051	<0.051	0.93	0.92	0.67	0.63	0.013	<0.054	<0.054	<0.056
Acetonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	<0.0052	<0.0051	<0.0051	<0.046	<0.049	<0.041	0.012	0.0064	<0.0054	<0.0054	<0.0056
Bromodichloromethane	<0.0052	<0.0051	<0.0051	<0.092	<0.098	<0.082	<0.076	<0.0053	<0.0054	<0.0054	<0.0056
Bromoform	<0.0052	<0.0051	<0.0051	<0.092	<0.098	<0.082	<0.076	<0.0053	<0.0054	<0.0054	<0.0056
Bromomethane	<0.0052	<0.0051	<0.0051	<0.18	<0.20	<0.16	<0.15	<0.0053	<0.0054	<0.0054	<0.0056
Carbon Disulfide	<0.0052	<0.0051	<0.0051	<0.23	<0.25	<0.21	<0.19	<0.0053	<0.0054	<0.0054	<0.0056
Carbon Tetrachloride	<0.0052	<0.0051	<0.0051	<0.046	<0.049	<0.041	<0.038	<0.0053	<0.0054	<0.0054	<0.0056
Chlorobenzene	<0.0052	<0.0051	<0.0051	<0.046	<0.049	<0.041	<0.038	<0.0053	<0.0054	<0.0054	<0.0056
Chloroethane	<0.0052	<0.0051	<0.0051	<0.23	<0.25	<0.21	<0.19	<0.0053	<0.0054	<0.0054	<0.0056
Chloroform	<0.0052	<0.0051	<0.0051	<0.046	<0.049	<0.041	<0.038	<0.0053	<0.0054	<0.0054	<0.0056
Chloromethane	<0.0052	<0.0051	<0.0051	<0.23	<0.25	<0.21	<0.19	<0.0053	<0.0054	<0.0054	<0.0056
cis-1,2-Dichloroethene	NA	NA	NA	<0.046	<0.049	<0.041	<0.038	NA	NA	NA	NA

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TABLE I-1
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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	LNAPL Assessment Area US-6 0 - 1 06/12/95	LNAPL Assessment Area US-7 0 - 1 06/12/95	LNAPL Assessment Area US-8 0 - 1 06/12/95	Parking Lot Area/Buffer Basin BH9 1 - 2 03/06/07	Parking Lot Area/Buffer Basin BH9 2 - 4 03/06/07	Parking Lot Area/Buffer Basin BH10 1 - 2 03/06/07	Parking Lot Area/Buffer Basin BH10 2 - 4 03/06/07	Parking Lot Area/Buffer Basin SB-354 0 - 2 06/28/95	Previous Metal Feedstock FS-1 0 - 1 06/12/95	Previous Metal Feedstock FS-2 0 - 1 06/12/95	Previous Metal Feedstock FS-3 0 - 1 06/12/95
Volatile Organics											
trans-1,2-Dichloroethene	<0.0052	<0.0051	<0.0051	<0.046	<0.049	<0.041	<0.038	<0.0053	<0.0054	<0.0054	<0.0056
1,2-Dichloroethene (total)	<0.0052	<0.0051	<0.0051	NA	NA	NA	NA	<0.0053	<0.0054	<0.0054	<0.0056
cis-1,3-Dichloropropene	<0.0052	<0.0051	<0.0051	<0.046	<0.049	<0.041	<0.038	<0.0053	<0.0054	<0.0054	<0.0056
trans-1,3-Dichloropropene	<0.0052	<0.0051	<0.0051	<0.046	<0.049	<0.041	<0.038	<0.0053	<0.0054	<0.0054	<0.0056
Total 1,3-Dichloropropenes	<0.0052	<0.0051	<0.0051	<0.046	<0.049	<0.041	<0.038	<0.0053	<0.0054	<0.0054	<0.0056
Cyclohexane	NA	NA	NA	<1.1	<1.2	<0.99	<0.92	NA	NA	NA	NA
Dibromochloromethane	<0.0052	<0.0051	<0.0051	<0.046	<0.049	<0.041	<0.038	<0.0053	<0.0054	<0.0054	<0.0056
Dibromomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA	<0.092	<0.098	<0.082	<0.076	NA	NA	NA	NA
Ethyl Methacrylate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	<0.0052	<0.0051	<0.0051	<0.046	<0.049	<0.041	0.01	0.0037	<0.0054	<0.0054	<0.0056
Iodomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isobutanol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	NA	NA	NA	<0.23	<0.25	<0.21	<0.19	NA	NA	NA	NA
Methacrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	NA	NA	NA	<1.1	<1.2	<0.99	<0.92	NA	NA	NA	NA
Methyl cyclohexane	NA	NA	NA	0.077	<1.2	0.06	<0.92	NA	NA	NA	NA
Methyl Methacrylate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	NA	NA	NA	<0.23	<0.25	<0.21	<0.19	NA	NA	NA	NA
Methylene Chloride	<0.010	<0.015	<0.0095	<0.23	<0.25	<0.21	<0.19	0.0017	<0.0050	<0.0067	<0.0090
Propionitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	<0.0052	<0.0051	<0.0051	<0.046	<0.049	<0.041	<0.038	<0.0053	<0.0054	<0.0054	<0.0056
Tetrachloroethene	<0.0052	<0.0051	<0.0051	<0.046	<0.049	0.012	<0.038	<0.0053	<0.0054	<0.0054	<0.0056
Toluene	<0.0029	<0.0090	0.016	0.011	<0.098	0.0096	0.019	0.29	<0.0054	0.013	<0.0052
trans-1,4-Dichloro-2-butene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	<0.0052	<0.0051	<0.0051	<0.046	<0.049	<0.041	<0.038	<0.0053	<0.0054	<0.0054	<0.0056
Trichlorofluoromethane	NA	NA	NA	<0.092	<0.098	<0.082	<0.076	NA	NA	NA	NA
Vinyl Acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	<0.0052	<0.0051	<0.0051	<0.037	<0.039	<0.033	<0.031	<0.0053	<0.0054	<0.0054	<0.0056
Total Xylenes	<0.0052	<0.0051	<0.0051	0.056	0.033	0.047	0.056	0.013	<0.0054	<0.0054	<0.0056

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TABLE I-1

SUMMARY OF VOLATILE ORGANIC COMPOUNDS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	Previous Metal Feedstock FS-4 0 - 1 06/12/95	Previous Metal Feedstock FS-5 0 - 1 06/12/95	Previous Metal Feedstock FS-6 0 - 1 06/12/95	Previous Metal Feedstock FS-7 0 - 1 06/12/95	Previous Metal Feedstock FS-8 0 - 1 06/12/95	Previous Metal Feedstock SB-304 0 - 1 02/08/95	Previous Metal Feedstock SB-304 2 - 4 02/08/95	Previous Metal Feedstock SB-304 6 - 8 02/08/95	Previous Metal Feedstock SB-305 0 - 1 02/08/95	Previous Metal Feedstock SB-305 2 - 4 02/08/95
Volatile Organics										
1,1,1,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	<0.0056	<0.0054	<0.0051 [<0.0051]	<0.0054	<0.0052	<0.0054	<0.0053	<0.0063	<0.0056	<0.0054
1,1,2,2-Tetrachloroethane	<0.0056	<0.0054	<0.0051 [<0.0051]	<0.0054	<0.0052	<0.0054	<0.0053	<0.0063	<0.0056	<0.0054
1,1,2-trichloro-1,2,2-trifluoroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	<0.0056	<0.0054	<0.0051 [<0.0051]	<0.0054	<0.0052	<0.0054	<0.0053	<0.0063	<0.0056	<0.0054
1,1-Dichloroethane	<0.0056	<0.0054	<0.0051 [<0.0051]	<0.0054	<0.0052	<0.0054	<0.0053	<0.0063	<0.0056	<0.0054
1,1-Dichloroethene	<0.0056	<0.0054	<0.0051 [<0.0051]	<0.0054	<0.0052	<0.0054	<0.0053	<0.0063	<0.0056	<0.0054
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	<0.0056	<0.0054	<0.0051 [<0.0051]	<0.0054	<0.0052	<0.0054	<0.0053	<0.0063	<0.0056	<0.0054
1,2-Dichloroethane	<0.0056	<0.0054	<0.0051 [<0.0051]	<0.0054	<0.0052	<0.0054	<0.0053	<0.0063	<0.0056	<0.0054
1,2-Dichloropropane	<0.0056	<0.0054	<0.0051 [<0.0051]	<0.0054	<0.0052	<0.0054	<0.0053	<0.0063	<0.0056	<0.0054
1,3,5-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	<0.0056	<0.0054	<0.0051 [<0.0051]	<0.0054	<0.0052	<0.0054	<0.0053	<0.0063	<0.0056	<0.0054
1,4-Dichlorobenzene	<0.0056	<0.0054	<0.0051 [<0.0051]	<0.0054	<0.0052	<0.0054	<0.0053	<0.0063	<0.0056	<0.0054
1,4-Dioxane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	<0.056	<0.054	<0.051 [<0.051]	<0.054	<0.052	<0.054	<0.053	<0.063	<0.056	<0.054
2-Chloro-1,3-butadiene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	<0.056	<0.054	<0.051 [<0.051]	<0.054	<0.052	<0.054	<0.053	<0.063	<0.056	<0.054
3-Chloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	<0.056	<0.054	<0.051 [<0.051]	<0.054	<0.052	<0.054	<0.053	<0.063	<0.056	<0.054
Acetone	<0.056	<0.054	<0.051 [<0.0096]	<0.054	<0.052	<0.054	<0.0053	<0.0092	<0.056	<0.054
Acetonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	<0.0056	<0.0054	<0.0051 [<0.0051]	<0.0054	<0.0052	<0.0054	<0.0053	<0.0063	<0.0056	<0.0054
Bromodichloromethane	<0.0056	<0.0054	<0.0051 [<0.0051]	<0.0054	<0.0052	<0.0054	<0.0053	<0.0063	<0.0056	<0.0054
Bromoform	<0.0056	<0.0054	<0.0051 [<0.0051]	<0.0054	<0.0052	<0.0054	<0.0053	<0.0063	<0.0056	<0.0054
Bromomethane	<0.0056	<0.0054	<0.0051 [<0.0051]	<0.0054	<0.0052	<0.0054	<0.0053	<0.0063	<0.0056	<0.0054
Carbon Disulfide	<0.0056	<0.0054	<0.0051 [<0.0051]	<0.0054	<0.0052	<0.0054	<0.0053	<0.0063	<0.0056	<0.0054
Carbon Tetrachloride	<0.0056	<0.0054	<0.0051 [<0.0051]	<0.0054	<0.0052	<0.0054	<0.0053	<0.0063	<0.0056	<0.0054
Chlorobenzene	<0.0056	<0.0054	<0.0051 [<0.0051]	<0.0054	<0.0052	<0.0054	<0.0053	<0.0063	<0.0056	<0.0054
Chloroethane	<0.0056	<0.0054	<0.0051 [<0.0051]	<0.0054	<0.0052	<0.0054	<0.0053	<0.0063	<0.0056	<0.0054
Chloroform	<0.0056	<0.0054	<0.0051 [<0.0051]	<0.0054	<0.0052	<0.0054	<0.0053	<0.0063	<0.0056	<0.0054
Chloromethane	<0.0056	<0.0054	<0.0051 [<0.0051]	<0.0054	<0.0052	<0.0054	<0.0053	<0.0063	<0.0056	<0.0054
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE I-1

SUMMARY OF VOLATILE ORGANIC COMPOUNDS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	Previous Metal Feedstock FS-4 0 - 1 06/12/95	Previous Metal Feedstock FS-5 0 - 1 06/12/95	Previous Metal Feedstock FS-6 0 - 1 06/12/95	Previous Metal Feedstock FS-7 0 - 1 06/12/95	Previous Metal Feedstock FS-8 0 - 1 06/12/95	Previous Metal Feedstock SB-304 0 - 1 02/08/95	Previous Metal Feedstock SB-304 2 - 4 02/08/95	Previous Metal Feedstock SB-304 6 - 8 02/08/95	Previous Metal Feedstock SB-305 0 - 1 02/08/95	Previous Metal Feedstock SB-305 2 - 4 02/08/95
Volatile Organics										
trans-1,2-Dichloroethene	<0.0056	<0.0054	<0.0051 [<0.0051]	<0.0054	<0.0052	<0.0054	<0.0053	<0.0063	<0.0056	<0.0054
1,2-Dichloroethene (total)	<0.0056	<0.0054	<0.0051 [<0.0051]	<0.0054	<0.0052	<0.0054	<0.0053	<0.0063	<0.0056	<0.0054
cis-1,3-Dichloropropene	<0.0056	<0.0054	<0.0051 [<0.0051]	<0.0054	<0.0052	<0.0054	<0.0053	<0.0063	<0.0056	<0.0054
trans-1,3-Dichloropropene	<0.0056	<0.0054	<0.0051 [<0.0051]	<0.0054	<0.0052	<0.0054	<0.0053	<0.0063	<0.0056	<0.0054
Total 1,3-Dichloropropenes	<0.0056	<0.0054	<0.0051 [<0.0051]	<0.0054	<0.0052	<0.0054	<0.0053	<0.0063	<0.0056	<0.0054
Cyclohexane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	<0.0056	<0.0054	<0.0051 [<0.0051]	<0.0054	<0.0052	<0.0054	<0.0053	<0.0063	<0.0056	<0.0054
Dibromomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	<0.0056	<0.0054	<0.0051 [<0.0051]	<0.0054	<0.0052	<0.0054	<0.0053	<0.0063	<0.0056	<0.0054
Iodomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isobutanol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	<0.0040	<0.0067	<0.014 [<0.0095]	<0.012	<0.0081	<0.0086	<0.0080	<0.0064	0.032	<0.019
Propionitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	<0.0056	<0.0054	<0.0051 [<0.0051]	<0.0054	<0.0052	<0.0054	<0.0053	<0.0063	<0.0056	<0.0054
Tetrachloroethene	<0.0056	<0.0054	<0.0051 [<0.0051]	<0.0054	<0.0052	<0.0054	<0.0053	<0.0063	<0.0056	<0.0054
Toluene	<0.0023	<0.0086	0.025 [0.026]	<0.0080	0.026	<0.0054	<0.0053	<0.0063	<0.0056	<0.0054
trans-1,4-Dichloro-2-butene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	<0.0056	<0.0054	<0.0051 [<0.0051]	<0.0054	<0.0052	<0.0054	<0.0053	<0.0063	<0.0056	<0.0054
Trichlorofluoromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	<0.0056	<0.0054	<0.0051 [<0.0051]	<0.0054	<0.0052	<0.0054	<0.0053	<0.0063	<0.0056	<0.0054
Total Xylenes	<0.0056	<0.0054	<0.0051 [<0.0051]	<0.0054	<0.0052	<0.0054	<0.0053	<0.0063	<0.0056	<0.0054

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TABLE I-1

SUMMARY OF VOLATILE ORGANIC COMPOUNDS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	Previous Metal Feedstock SB-305 6 - 8 02/08/95	Previous Metal Feedstock SB-305 10 - 12 02/08/95	Previous Metal Feedstock SB-352 0 - 2 06/28/95	Previously Proposed Type III Landfill Area TP1 0 - 4 05/22/98	Previously Proposed Type III Landfill Area TP1 4 - 8 05/22/98	Previously Proposed Type III Landfill Area TP2 0 - 4 05/22/98	Previously Proposed Type III Landfill Area TP2 4 - 8 05/22/98	Previously Proposed Type III Landfill Area TP3 0 - 4 05/22/98	Previously Proposed Type III Landfill Area TP3 4 - 8 05/22/98
Volatile Organics									
1,1,1,2-Tetrachloroethane	NA	<0.0069	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	<0.0056	<0.0069	<0.0056	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
1,1,2,2-Tetrachloroethane	<0.0056	<0.0069	<0.0056	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
1,1,2-trichloro-1,2,2-trifluoroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	<0.0056	<0.0069	<0.0056	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
1,1-Dichloroethane	<0.0056	<0.0069	<0.0056	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
1,1-Dichloroethene	<0.0056	<0.0069	<0.0056	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
1,2,3-Trichloropropane	NA	<0.0069	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	<0.014	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	<0.0069	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	<0.0056	<0.0069	<0.0056	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	<0.0056	<0.0069	<0.0056	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
1,2-Dichloropropane	<0.0056	<0.0069	<0.0056	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
1,3,5-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	<0.0056	<0.0069	<0.0056	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	<0.0056	<0.0069	<0.0056	NA	NA	NA	NA	NA	NA
1,4-Dioxane	NA	<1.4	NA	NA	NA	NA	NA	NA	NA
2-Butanone	<0.056	0.012	0.0036	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
2-Chloro-1,3-butadiene	NA	<0.0069	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	<0.056	<0.069	<0.056	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
3-Chloropropene	NA	<0.0070	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	<0.056	<0.069	<0.056	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Acetone	0.034	0.063	0.017	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Acetonitrile	NA	<0.069	NA	NA	NA	NA	NA	NA	NA
Acrolein	NA	<0.069	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	<0.069	NA	NA	NA	NA	NA	NA	NA
Benzene	<0.0056	<0.0069	0.0017	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Bromodichloromethane	<0.0056	<0.0069	<0.0056	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Bromoform	<0.0056	<0.0069	<0.0056	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Bromomethane	<0.0056	<0.0069	<0.0056	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Carbon Disulfide	<0.0056	<0.0069	0.0015	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Carbon Tetrachloride	<0.0056	<0.0069	<0.0056	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Chlorobenzene	<0.0056	<0.0069	<0.0056	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Chloroethane	<0.0056	<0.0069	<0.0056	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Chloroform	<0.0056	<0.0069	<0.0056	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Chloromethane	<0.0056	<0.0069	<0.0056	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
cis-1,2-Dichloroethene	NA	<0.0069	NA	NA	NA	NA	NA	NA	NA

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TABLE I-1
SUMMARY OF VOLATILE ORGANIC COMPOUNDS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	Previous Metal Feedstock SB-305 6 - 8 02/08/95	Previous Metal Feedstock SB-305 10 - 12 02/08/95	Previous Metal Feedstock SB-352 0 - 2 06/28/95	Previously Proposed Type III Landfill Area TP1 0 - 4 05/22/98	Previously Proposed Type III Landfill Area TP1 4 - 8 05/22/98	Previously Proposed Type III Landfill Area TP2 0 - 4 05/22/98	Previously Proposed Type III Landfill Area TP2 4 - 8 05/22/98	Previously Proposed Type III Landfill Area TP3 0 - 4 05/22/98	Previously Proposed Type III Landfill Area TP3 4 - 8 05/22/98
Volatile Organics									
trans-1,2-Dichloroethene	<0.0056	<0.0069	<0.0056	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	<0.0056	<0.0069	<0.0056	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
cis-1,3-Dichloropropene	<0.0056	<0.0069	<0.0056	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
trans-1,3-Dichloropropene	<0.0056	<0.0069	<0.0056	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Total 1,3-Dichloropropenes	<0.0056	<0.0069	<0.0056	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cyclohexane	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	<0.0056	<0.0069	<0.0056	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Dibromomethane	NA	<0.0069	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NA	<0.0069	NA	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	<0.0056	<0.0069	<0.0056	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Iodomethane	NA	<0.014	NA	NA	NA	NA	NA	NA	NA
Isobutanol	NA	<0.69	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	NA	<0.027	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	NA	<0.0069	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	<0.013	<0.0069	0.0019	0.019	0.026	0.031	0.027	0.0077	0.028
Propionitrile	NA	<0.027	NA	NA	NA	NA	NA	NA	NA
Styrene	<0.0056	<0.0069	<0.0056	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Tetrachloroethene	<0.0056	<0.0069	0.0016	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Toluene	0.025	0.017	0.048	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
trans-1,4-Dichloro-2-butene	NA	<0.0069	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	<0.0056	<0.0069	<0.0056	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Trichlorofluoromethane	NA	<0.0070	NA	NA	NA	NA	NA	NA	NA
Vinyl Acetate	NA	<0.069	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	<0.0056	<0.0069	<0.0056	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Total Xylenes	<0.0056	<0.0069	0.002	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050

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TABLE I-1

SUMMARY OF VOLATILE ORGANIC COMPOUNDS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area	Previously Proposed Type III Landfill Area	Previously Proposed Type III Landfill Area	Previously Proposed Type III Landfill Area	Previously Proposed Type III Landfill Area	Previously Proposed Type III Landfill Area	Previously Proposed Type III Landfill Area	Previously Proposed Type III Landfill Area	Primary Settling Pond	Primary Settling Pond
Location ID	TP4	TP4	TP5	TP5	TP6	TP6	TP7	BH7	BH7
Sample Depth (ft bgs):	0 - 4	4 - 8	0 - 4	4 - 8	0 - 4	4 - 8	0 - 4	0 - 2	2 - 4
Date Collected:	05/22/98	05/22/98	05/22/98	05/22/98	05/22/98	05/22/98	05/22/98	03/06/07	03/06/07
Volatile Organics									
1,1,1,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.045	<0.051
1,1,2,2-Tetrachloroethane	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.045	<0.051
1,1,2-trichloro-1,2,2-trifluoroethane	NA	NA	NA	NA	NA	NA	NA	<0.23	<0.25
1,1,2-Trichloroethane	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.045	<0.051
1,1-Dichloroethane	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.045	<0.051
1,1-Dichloroethene	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.045	<0.051
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	<0.23	<0.25
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA	NA	<0.23	<0.25
1,2-Dibromoethane	NA	NA	NA	NA	NA	NA	NA	<0.23	<0.25
1,2-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	<0.090	<0.10
1,2-Dichloroethane	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.045	<0.051
1,2-Dichloropropane	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.045	<0.051
1,3,5-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	<0.090	<0.10
1,4-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	<0.090	<0.10
1,4-Dioxane	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.68	<0.76
2-Chloro-1,3-butadiene	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<2.3	<2.5
3-Chloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<2.3	<2.5
Acetone	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.73	0.81
Acetonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.045	<0.051
Bromodichloromethane	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.090	<0.10
Bromoform	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.090	<0.10
Bromomethane	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.18	<0.20
Carbon Disulfide	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.23	<0.25
Carbon Tetrachloride	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.045	<0.051
Chlorobenzene	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.045	<0.051
Chloroethane	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.23	<0.25
Chloroform	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.045	<0.051
Chloromethane	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.23	<0.25
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	<0.045	<0.051

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TABLE I-1

SUMMARY OF VOLATILE ORGANIC COMPOUNDS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	Previously Proposed Type III Landfill Area TP4 0 - 4 05/22/98	Previously Proposed Type III Landfill Area TP4 4 - 8 05/22/98	Previously Proposed Type III Landfill Area TP5 0 - 4 05/22/98	Previously Proposed Type III Landfill Area TP5 4 - 8 05/22/98	Previously Proposed Type III Landfill Area TP6 0 - 4 05/22/98	Previously Proposed Type III Landfill Area TP6 4 - 8 05/22/98	Previously Proposed Type III Landfill Area TP7 0 - 4 05/22/98	Primary Settling Pond BH7 0 - 2 03/06/07	Primary Settling Pond BH7 2 - 4 03/06/07
Volatile Organics									
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	<0.045	<0.051
1,2-Dichloroethene (total)	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	NA	NA
cis-1,3-Dichloropropene	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.045	<0.051
trans-1,3-Dichloropropene	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.045	<0.051
Total 1,3-Dichloropropenes	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.045	<0.051
Cyclohexane	NA	NA	NA	NA	NA	NA	NA	0.051	0.062
Dibromochloromethane	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.045	<0.051
Dibromomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA	NA	<0.090	<0.10
Ethyl Methacrylate	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.045	<0.051
Iodomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isobutanol	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	<0.23	<0.25
Methacrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	NA	NA	NA	NA	NA	NA	NA	<1.1	<1.2
Methyl cyclohexane	NA	NA	NA	NA	NA	NA	NA	0.082	0.1
Methyl Methacrylate	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	NA	NA	NA	NA	NA	NA	NA	<0.23	<0.25
Methylene Chloride	0.024	0.049	0.054	0.022	0.069	0.02	0.015	<0.23	<0.25
Propionitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.045	<0.051
Tetrachloroethene	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.045	<0.051
Toluene	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.016	0.025
trans-1,4-Dichloro-2-butene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.045	<0.051
Trichlorofluoromethane	NA	NA	NA	NA	NA	NA	NA	<0.090	<0.10
Vinyl Acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.036	<0.040
Total Xylenes	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.065	0.088

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TABLE I-1
SUMMARY OF VOLATILE ORGANIC COMPOUNDS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area	Primary Settling Pond	Primary Settling Pond	Primary Settling Pond	Railyard Area	Railyard Area	Railyard Area	Railyard Area	Railyard Area	Railyard Area	Railyard Area	Railyard Area
Location ID	BH8	BH8	NS-1	BH11	BH11	BH12	BH12	NS-RS-4	RS-1	RS-2	RS-3
Sample Depth (ft bgs):	0 - 2	2 - 4	0 - 14	0 - 2	2 - 4	0 - 2	2 - 4	2.5 - 3	0 - 1	0 - 1	0 - 1
Date Collected:	03/06/07	03/06/07	06/23/95	03/06/07	03/06/07	03/06/07	03/06/07	06/13/95	06/13/95	06/13/95	06/13/95
Volatile Organics											
1,1,1,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	<0.0063	NA	NA	NA
1,1,1-Trichloroethane	<0.046	<0.049	<0.0074	<0.052	<0.048	<0.045 [<0.046]	<0.044	<0.0063	<0.0053	<0.0054	<0.0054
1,1,2,2-Tetrachloroethane	<0.046	<0.049	<0.0074	<0.052	<0.048	<0.045 [<0.046]	<0.044	<0.0063	<0.0053	<0.0054	<0.0054
1,1,2-trichloro-1,2,2-trifluoroethane	<0.23	<0.24	NA	<0.26	<0.24	<0.23 [<0.23]	<0.22	NA	NA	NA	NA
1,1,2-Trichloroethane	<0.046	<0.049	<0.0074	<0.052	<0.048	<0.045 [<0.046]	<0.044	<0.0063	<0.0053	<0.0054	<0.0054
1,1-Dichloroethane	<0.046	<0.049	<0.0074	<0.052	<0.048	<0.045 [<0.046]	<0.044	<0.0063	<0.0053	<0.0054	<0.0054
1,1-Dichloroethene	<0.046	<0.049	<0.0074	<0.052	<0.048	<0.045 [<0.046]	<0.044	<0.0063	<0.0053	<0.0054	<0.0054
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA	NA	<0.0063	NA	NA	NA
1,2,4-Trichlorobenzene	<0.23	<0.24	NA	<0.26	<0.24	0.061 [0.063]	<0.22	NA	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	<0.23	<0.24	NA	<0.26	<0.24	<0.23 [<0.23]	<0.22	<0.013	NA	NA	NA
1,2-Dibromoethane	<0.23	<0.24	NA	<0.26	<0.24	<0.23 [<0.23]	<0.22	<0.0063	NA	NA	NA
1,2-Dichlorobenzene	<0.092	<0.097	<0.0074	<0.10	<0.095	<0.090 [<0.091]	<0.089	<0.0063	<0.0053	<0.0054	<0.0054
1,2-Dichloroethane	<0.046	<0.049	<0.0074	<0.052	<0.048	<0.045 [<0.046]	<0.044	<0.0063	<0.0053	<0.0054	<0.0054
1,2-Dichloropropane	<0.046	<0.049	<0.0074	<0.052	<0.048	<0.045 [<0.046]	<0.044	<0.0063	<0.0053	<0.0054	<0.0054
1,3,5-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	<0.092	<0.097	<0.0074	<0.10	<0.095	<0.090 [<0.091]	<0.089	<0.0063	<0.0053	<0.0054	<0.0054
1,4-Dichlorobenzene	<0.092	<0.097	<0.0074	<0.10	<0.095	0.010 [<0.091]	<0.089	<0.0063	<0.0053	<0.0054	<0.0054
1,4-Dioxane	NA	NA	NA	NA	NA	NA	NA	R	NA	NA	NA
2-Butanone	<0.69	<0.73	0.018	<0.78	<0.72	<0.68 [<0.68]	<0.67	0.007	<0.053	<0.054	<0.054
2-Chloro-1,3-butadiene	NA	NA	NA	NA	NA	NA	NA	<0.0063	NA	NA	NA
2-Hexanone	<2.3	<2.4	<0.074	<2.6	<2.4	<2.3 [<2.3]	<2.2	<0.063	<0.053	<0.054	<0.054
3-Chloropropene	NA	NA	NA	NA	NA	NA	NA	<0.0063	NA	NA	NA
4-Methyl-2-pentanone	<2.3	<2.4	<0.074	<2.6	<2.4	<2.3 [<2.3]	<2.2	<0.063	<0.053	<0.054	<0.054
Acetone	0.8	0.75	0.065	1.3	0.59	0.71 [0.58]	0.51	<0.067	<0.053	<0.054	<0.054
Acetonitrile	NA	NA	NA	NA	NA	NA	NA	<0.063	NA	NA	NA
Acrolein	NA	NA	NA	NA	NA	NA	NA	<0.063	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA	NA	<0.063	NA	NA	NA
Benzene	<0.046	0.029	<0.0074	0.088	0.016	<0.045 [<0.046]	0.0076	<0.0063	<0.0053	<0.0054	<0.0054
Bromodichloromethane	<0.092	<0.097	<0.0074	<0.10	<0.095	<0.090 [<0.091]	<0.089	<0.0063	<0.0053	<0.0054	<0.0054
Bromoform	<0.092	<0.097	<0.0074	<0.10	<0.095	<0.090 [<0.091]	<0.089	<0.0063	<0.0053	<0.0054	<0.0054
Bromomethane	<0.18	<0.19	<0.0074	<0.21	<0.19	<0.18 [<0.18]	<0.18	<0.0063	<0.0053	<0.0054	<0.0054
Carbon Disulfide	<0.23	<0.24	<0.0074	<0.26	<0.24	<0.23 [<0.23]	<0.22	<0.0063	<0.0053	<0.0054	<0.0054
Carbon Tetrachloride	<0.046	<0.049	<0.0074	<0.052	<0.048	<0.045 [<0.046]	<0.044	<0.0063	<0.0053	<0.0054	<0.0054
Chlorobenzene	<0.046	<0.049	<0.0074	<0.052	<0.048	<0.045 [<0.046]	<0.044	<0.0063	<0.0053	<0.0054	<0.0054
Chloroethane	<0.23	<0.24	<0.0074	<0.26	<0.24	<0.23 [<0.23]	<0.22	<0.0063	<0.0053	<0.0054	<0.0054
Chloroform	<0.046	<0.049	<0.0074	<0.052	<0.048	<0.045 [<0.046]	<0.044	<0.0063	<0.0053	<0.0054	<0.0054
Chloromethane	<0.23	<0.24	<0.0074	<0.26	<0.24	<0.23 [<0.23]	<0.22	<0.0063	<0.0053	<0.0054	<0.0054
cis-1,2-Dichloroethene	<0.046	<0.049	NA	<0.052	<0.048	<0.045 [<0.046]	<0.044	<0.0063	NA	NA	NA

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area	Primary Settling Pond	Primary Settling Pond	Primary Settling Pond	Railyard Area	Railyard Area	Railyard Area	Railyard Area	Railyard Area	Railyard Area	Railyard Area	Railyard Area
Location ID	BH8	BH8	NS-1	BH11	BH11	BH12	BH12	NS-RS-4	RS-1	RS-2	RS-3
Sample Depth (ft bgs):	0 - 2	2 - 4	0 - 14	0 - 2	2 - 4	0 - 2	2 - 4	2.5 - 3	0 - 1	0 - 1	0 - 1
Date Collected:	03/06/07	03/06/07	06/23/95	03/06/07	03/06/07	03/06/07	03/06/07	06/13/95	06/13/95	06/13/95	06/13/95
Volatile Organics											
trans-1,2-Dichloroethene	<0.046	<0.049	<0.0074	<0.052	<0.048	<0.045 [<0.046]	<0.044	<0.0063	<0.0053	<0.0054	<0.0054
1,2-Dichloroethene (total)	NA	NA	<0.0074	NA	NA	NA	NA	NA	<0.0053	<0.0054	<0.0054
cis-1,3-Dichloropropene	<0.046	<0.049	<0.0074	<0.052	<0.048	<0.045 [<0.046]	<0.044	<0.0063	<0.0053	<0.0054	<0.0054
trans-1,3-Dichloropropene	<0.046	<0.049	<0.0074	<0.052	<0.048	<0.045 [<0.046]	<0.044	<0.0063	<0.0053	<0.0054	<0.0054
Total 1,3-Dichloropropenes	<0.046	<0.049	<0.0074	<0.052	<0.048	<0.045 [<0.046]	<0.044	<0.0063	<0.0053	<0.0054	<0.0054
Cyclohexane	0.063	0.09	NA	0.41	0.23	<1.1 [<1.1]	<1.1	NA	NA	NA	NA
Dibromochloromethane	<0.046	<0.049	<0.0074	<0.052	<0.048	<0.045 [<0.046]	<0.044	<0.0063	<0.0053	<0.0054	<0.0054
Dibromomethane	NA	NA	NA	NA	NA	NA	NA	<0.0063	NA	NA	NA
Dichlorodifluoromethane	<0.092	<0.097	NA	<0.10	<0.095	<0.090 [<0.091]	<0.089	<0.0063	NA	NA	NA
Ethyl Methacrylate	NA	NA	NA	NA	NA	NA	NA	<0.0063	NA	NA	NA
Ethylbenzene	0.011	0.027	<0.0074	0.17	0.33	<0.045 [<0.046]	0.0077	<0.0063	<0.0053	<0.0054	<0.0054
Iodomethane	NA	NA	NA	NA	NA	NA	NA	<0.013	NA	NA	NA
Isobutanol	NA	NA	NA	NA	NA	NA	NA	R	NA	NA	NA
Isopropylbenzene	<0.23	0.06	NA	0.1	0.097	<0.23 [<0.23]	0.051	NA	NA	NA	NA
Methacrylonitrile	NA	NA	NA	NA	NA	NA	NA	<0.025	NA	NA	NA
Methyl acetate	<1.1	<1.2	NA	<1.2	<1.1	<1.1 [<1.1]	<1.1	NA	NA	NA	NA
Methyl cyclohexane	0.14	0.19	NA	0.98	0.78	<1.1 [<1.1]	<1.1	NA	NA	NA	NA
Methyl Methacrylate	NA	NA	NA	NA	NA	NA	NA	<0.0063	NA	NA	NA
Methyl tert-butyl ether	<0.23	<0.24	NA	<0.26	<0.24	<0.23 [<0.23]	<0.22	NA	NA	NA	NA
Methylene Chloride	<0.23	<0.24	<0.0070	<0.26	<0.24	<0.23 [<0.23]	<0.22	<0.0063	<0.019	<0.0068	<0.0078
Propionitrile	NA	NA	NA	NA	NA	NA	NA	<0.025	NA	NA	NA
Styrene	<0.046	<0.049	<0.0074	<0.052	<0.048	<0.045 [<0.046]	<0.044	<0.0063	<0.0053	<0.0054	<0.0054
Tetrachloroethene	<0.046	<0.049	<0.0074	<0.052	<0.048	<0.045 [<0.046]	0.011	<0.0063	<0.0053	<0.0054	<0.0054
Toluene	0.043	0.088	0.018	0.62	<0.095	<0.090 [<0.091]	<0.089	<0.0059	<0.0053	<0.0054	<0.0054
trans-1,4-Dichloro-2-butene	NA	NA	NA	NA	NA	NA	NA	<0.0063	NA	NA	NA
Trichloroethene	<0.046	<0.049	<0.0074	<0.052	<0.048	<0.045 [<0.046]	<0.044	<0.0063	<0.0053	<0.0054	<0.0054
Trichlorofluoromethane	<0.092	<0.097	NA	<0.10	<0.095	<0.090 [<0.091]	<0.089	<0.0063	NA	NA	NA
Vinyl Acetate	NA	NA	NA	NA	NA	NA	NA	<0.063	NA	NA	NA
Vinyl Chloride	<0.037	<0.039	<0.0074	<0.042	<0.038	<0.036 [<0.036]	<0.036	<0.0063	<0.0053	<0.0054	<0.0054
Total Xylenes	0.12	0.21	<0.0074	1.2	0.36	0.050 [<0.14]	0.055	<0.0063	<0.0053	<0.0054	<0.0054

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TABLE I-1

SUMMARY OF VOLATILE ORGANIC COMPOUNDS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	Railyard Area RS-4 0 - 1 06/13/95	Railyard Area RS-6 0 - 1 06/13/95	Railyard Area RS-7 0 - 1 06/13/95	Railyard Area RS-8 0 - 1 06/13/95	Stormwater Pond NS-7 0 - 4.5 06/21/95	Stormwater Pond NS-8 0 - 10 06/21/95	Stormwater Pond NS-9 0 - 4.5 06/21/95	Stormwater Pond NS-10 0 - 10 06/21/95	UST 7 BBL-M1 4 - 6 05/02/96	UST 7 BBL-M2 4 - 6 05/02/96	UST 7 BBL-M3 6 - 8 05/02/96	UST 7 BBL-M4 4 - 6 05/03/96	UST 7 BBL-M5 4 - 6 05/03/96
Volatile Organics													
1,1,1,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	<0.0053 [<0.0053]	<0.0052	<0.0054	<0.0052	<0.0063	<0.0072	<0.0065	<0.0067	<0.013	<0.0058	<1.0	<0.0055	<0.0056
1,1,2,2-Tetrachloroethane	<0.0053 [<0.0053]	<0.0052	<0.0054	<0.0052	<0.0063	<0.0072	<0.0065	<0.0067	<0.013	<0.0058	<1.0	<0.0055	<0.0056
1,1,2-trichloro-1,2,2-trifluoroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	<0.0053 [<0.0053]	<0.0052	<0.0054	<0.0052	<0.0063	<0.0072	<0.0065	<0.0067	<0.013	<0.0058	<1.0	<0.0055	<0.0056
1,1-Dichloroethane	<0.0053 [<0.0053]	<0.0052	<0.0054	<0.0052	<0.0063	<0.0072	<0.0065	<0.0067	<0.013	<0.0058	<1.0	<0.0055	<0.0056
1,1-Dichloroethene	<0.0053 [<0.0053]	<0.0052	<0.0054	<0.0052	<0.0063	<0.0072	<0.0065	<0.0067	<0.013	<0.0058	<1.0	<0.0055	<0.0056
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	0.023	R	38	R	R
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	<0.0053 [<0.0053]	<0.0052	<0.0054	<0.0052	<0.0063	<0.0072	<0.0065	<0.0067	NA	NA	NA	NA	NA
1,2-Dichloroethane	<0.0053 [<0.0053]	<0.0052	<0.0054	<0.0052	<0.0063	<0.0072	<0.0065	<0.0067	<0.013	<0.0058	<1.0	<0.0055	<0.0056
1,2-Dichloropropane	<0.0053 [<0.0053]	<0.0052	<0.0054	<0.0052	<0.0063	<0.0072	<0.0065	<0.0067	<0.013	<0.0058	<1.0	<0.0055	<0.0056
1,3,5-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	0.027	R	7.7	R	R
1,3-Dichlorobenzene	<0.0053 [<0.0053]	<0.0052	<0.0054	<0.0052	<0.0063	<0.0072	<0.0065	<0.0067	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	<0.0053 [<0.0053]	<0.0052	<0.0054	<0.0052	<0.0063	<0.0072	<0.0065	<0.0067	NA	NA	NA	NA	NA
1,4-Dioxane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	<0.053 [<0.053]	<0.052	<0.054	<0.052	0.0044	0.0091	0.0063	0.0031	<0.13	<0.058	<10	0.0034	0.0038
2-Chloro-1,3-butadiene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	<0.053 [<0.053]	<0.052	<0.054	<0.052	<0.063	<0.072	<0.065	<0.067	<0.13	<0.058	<10	<0.055	<0.056
3-Chloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	<0.053 [<0.053]	<0.052	<0.054	<0.052	<0.063	<0.072	<0.065	<0.067	<0.13	<0.058	<10	<0.055	<0.056
Acetone	<0.053 [<0.053]	<0.052	<0.015	<0.052	0.019	0.028	0.027	<0.067	<0.13	<0.058	<10	0.0041	0.039
Acetonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	<0.0053 [<0.0053]	<0.0052	<0.0054	<0.0052	<0.0063	<0.0072	<0.0065	<0.0067	<0.013	0.003	7.3	<0.0055	<0.0056
Bromodichloromethane	<0.0053 [<0.0053]	<0.0052	<0.0054	<0.0052	<0.0063	<0.0072	<0.0065	<0.0067	<0.013	<0.0058	<1.0	<0.0055	<0.0056
Bromoform	<0.0053 [<0.0053]	<0.0052	<0.0054	<0.0052	<0.0063	<0.0072	<0.0065	<0.0067	<0.013	<0.0058	<1.0	<0.0055	<0.0056
Bromomethane	<0.0053 [<0.0053]	<0.0052	<0.0054	<0.0052	<0.0063	<0.0072	<0.0065	<0.0067	<0.013	<0.0058	<1.0	<0.0055	<0.0056
Carbon Disulfide	<0.0053 [<0.0053]	<0.0052	<0.0054	<0.0052	<0.0063	<0.0072	<0.0065	<0.0067	<0.013	<0.0058	<1.0	<0.0055	<0.0056
Carbon Tetrachloride	<0.0053 [<0.0053]	<0.0052	<0.0054	<0.0052	<0.0063	<0.0072	<0.0065	<0.0067	<0.013	<0.0058	<1.0	<0.0055	<0.0056
Chlorobenzene	<0.0053 [<0.0053]	<0.0052	<0.0054	<0.0052	<0.0063	<0.0072	<0.0065	<0.0067	<0.013	<0.0058	<1.0	<0.0055	<0.0056
Chloroethane	<0.0053 [<0.0053]	<0.0052	<0.0054	<0.0052	<0.0063	<0.0072	<0.0065	<0.0067	<0.013	<0.0058	<1.0	<0.0055	<0.0056
Chloroform	<0.0053 [<0.0053]	<0.0052	<0.0054	<0.0052	<0.0063	<0.0072	<0.0065	<0.0067	<0.013	<0.0058	<1.0	<0.0055	<0.0056
Chloromethane	<0.0053 [<0.0053]	<0.0052	<0.0054	<0.0052	<0.0063	<0.0072	<0.0065	<0.0067	<0.013	<0.0058	<1.0	<0.0055	<0.0056
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	<0.013	<0.0058	<1.0	<0.0055	<0.0056

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	Railyard Area RS-4 0 - 1 06/13/95	Railyard Area RS-6 0 - 1 06/13/95	Railyard Area RS-7 0 - 1 06/13/95	Railyard Area RS-8 0 - 1 06/13/95	Stormwater Pond NS-7 0 - 4.5 06/21/95	Stormwater Pond NS-8 0 - 10 06/21/95	Stormwater Pond NS-9 0 - 4.5 06/21/95	Stormwater Pond NS-10 0 - 10 06/21/95	UST 7 BBL-M1 4 - 6 05/02/96	UST 7 BBL-M2 4 - 6 05/02/96	UST 7 BBL-M3 6 - 8 05/02/96	UST 7 BBL-M4 4 - 6 05/03/96	UST 7 BBL-M5 4 - 6 05/03/96
Volatile Organics													
trans-1,2-Dichloroethene	<0.0053 [<0.0053]	<0.0052	<0.0054	<0.0052	<0.0063	<0.0072	<0.0065	<0.0067	<0.013	<0.0058	<1.0	<0.0055	<0.0056
1,2-Dichloroethene (total)	<0.0053 [<0.0053]	<0.0052	<0.0054	<0.0052	<0.0063	<0.0072	<0.0065	<0.0067	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	<0.0053 [<0.0053]	<0.0052	<0.0054	<0.0052	<0.0063	<0.0072	<0.0065	<0.0067	<0.013	<0.0058	<1.0	<0.0055	<0.0056
trans-1,3-Dichloropropene	<0.0053 [<0.0053]	<0.0052	<0.0054	<0.0052	<0.0063	<0.0072	<0.0065	<0.0067	<0.013	<0.0058	<1.0	<0.0055	<0.0056
Total 1,3-Dichloropropenes	<0.0053 [<0.0053]	<0.0052	<0.0054	<0.0052	<0.0063	<0.0072	<0.0065	<0.0067	<0.013	<0.0058	<1.0	<0.0055	<0.0056
Cyclohexane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	<0.0053 [<0.0053]	<0.0052	<0.0054	<0.0052	<0.0063	<0.0072	<0.0065	<0.0067	<0.013	<0.0058	<1.0	<0.0055	<0.0056
Dibromomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	<0.0053 [<0.0053]	<0.0052	<0.0054	<0.0052	<0.0063	<0.0072	<0.0065	<0.0067	<0.013	0.0036	14	<0.0055	<0.0056
Iodomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isobutanol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	NA	NA	NA	NA	NA	NA	NA	NA	<0.053	<0.023	<4.2	<0.022	<0.022
Methylene Chloride	<0.0052 [<0.0050]	<0.0061	<0.021	<0.010	<0.039	<0.0087	<0.0060	<0.0070	<0.013	0.0072	<1.0	0.0043	<0.0056
Propionitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	<0.0053 [<0.0053]	<0.0052	<0.0054	<0.0052	<0.0063	<0.0072	<0.0065	<0.0067	<0.013	<0.0058	<1.0	<0.0055	<0.0056
Tetrachloroethene	<0.0053 [<0.0053]	<0.0052	<0.0054	<0.0052	<0.0063	<0.0072	<0.0065	<0.0067	<0.013	<0.0058	<1.0	<0.0055	<0.0056
Toluene	<0.0053 [<0.0053]	<0.0052	<0.0071	<0.0052	<0.0063	0.01	0.011	<0.0067	<0.013	0.0091	6.4	0.012	<0.0056
trans-1,4-Dichloro-2-butene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	<0.0053 [<0.0053]	<0.0052	<0.0054	<0.0052	<0.0063	<0.0072	<0.0065	<0.0067	<0.013	<0.0058	<1.0	<0.0055	<0.0056
Trichlorofluoromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	<0.0053 [<0.0053]	<0.0052	<0.0054	<0.0052	<0.0063	<0.0072	<0.0065	<0.0067	<0.013	<0.0058	<1.0	<0.0055	<0.0056
Total Xylenes	<0.0053 [<0.0053]	<0.0052	0.0033	<0.0052	<0.0063	<0.0072	<0.0065	<0.0067	0.0078	<0.0058	39	<0.0055	<0.0056

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	USTs #1 through #4	USTs #1 through #4	USTs #1 through #4	USTs #1 through #4	USTs #1 through #4
Location ID	BBL-SB1	BBL-SB1	BBL-SB2	BBL-SB2	BBL-SB3	BBL-SB3	BBL-SB4	BBL-SB4	BBL-SB5	BBL-SB5	SB-351	SB-02	SB-02	SB-03	SB-03	SB-04
Sample Depth (ft bgs):	4 - 6	8 - 10	0 - 2	8 - 10	6 - 8	8 - 10	0 - 2	8 - 10	0 - 2	20 - 22	0 - 2	6 - 8	10 - 12	8 - 10	14 - 16	6 - 8
Date Collected:	05/06/96	05/06/96	05/07/96	05/07/96	05/07/96	05/07/96	05/07/96	05/07/96	05/06/96	05/06/96	06/27/95	08/08/91	08/08/91	08/08/91	08/08/91	08/31/91
Volatile Organics																
1,1,1,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	<0.0057	<3.5	<0.0054	<0.0057	<0.0059	<3.7	<3.4	<1.6	<0.0060	<0.0061	<0.0056	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	<0.0057	<3.5	<0.0054	<0.0057	<0.0059	<3.7	<3.4	<1.6	<0.0060	<0.0061	<0.0056	NA	NA	NA	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	<0.0057	<3.5	<0.0054	<0.0057	<0.0059	<3.7	<3.4	<1.6	<0.0060	<0.0061	<0.0056	NA	NA	NA	NA	NA
1,1-Dichloroethane	<0.0057	<3.5	<0.0054	<0.0057	<0.0059	<3.7	<3.4	<1.6	<0.0060	<0.0061	<0.0056	NA	NA	NA	NA	NA
1,1-Dichloroethene	<0.0057	<3.5	<0.0054	<0.0057	<0.0059	<3.7	<3.4	<1.6	<0.0060	<0.0061	<0.0056	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	R	62	R	0.0055	0.11	84	R	R	R	R	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.0056	NA	NA	NA	NA	NA
1,2-Dichloroethane	<0.0057	<3.5	<0.0054	<0.0057	<0.0059	<3.7	<3.4	<1.6	<0.0060	<0.0061	<0.0056	NA	NA	NA	NA	NA
1,2-Dichloropropane	<0.0057	<3.5	<0.0054	<0.0057	<0.0059	<3.7	<3.4	<1.6	<0.0060	<0.0061	<0.0056	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	R	18	R	R	0.019	7.1	R	R	R	R	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.0056	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.0056	NA	NA	NA	NA	NA
1,4-Dioxane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	0.0036	<35	0.013	<0.057	<0.059	<37	<34	<16	<0.060	<0.061	<0.056	NA	NA	NA	NA	NA
2-Chloro-1,3-butadiene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	<0.057	<35	<0.054	<0.057	<0.059	<37	<34	<16	<0.060	<0.061	<0.056	NA	NA	NA	NA	NA
3-Chloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	<0.057	<35	<0.054	<0.057	<0.059	<37	<34	<16	<0.060	<0.061	<0.056	NA	NA	NA	NA	NA
Acetone	0.04	<35	0.043	0.033	0.0083	5	<34	<16	<0.060	0.011	0.005	NA	NA	NA	NA	NA
Acetonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	<0.0057	<3.5	0.0025	0.01	0.043	21	2.7	3	<0.0060	<0.0061	<0.0056	<0.0010	<0.0010	<0.20	<0.0010	<1.0
Bromodichloromethane	<0.0057	<3.5	<0.0054	<0.0057	<0.0059	<3.7	<3.4	<1.6	<0.0060	<0.0061	0.0038	NA	NA	NA	NA	NA
Bromoform	<0.0057	<3.5	<0.0054	<0.0057	<0.0059	<3.7	<3.4	<1.6	<0.0060	<0.0061	<0.0056	NA	NA	NA	NA	NA
Bromomethane	<0.0057	<3.5	<0.0054	<0.0057	<0.0059	<3.7	<3.4	<1.6	<0.0060	<0.0061	<0.0056	NA	NA	NA	NA	NA
Carbon Disulfide	<0.0057	<3.5	<0.0054	0.0047	0.0047	<3.7	<3.4	<1.6	<0.0060	<0.0061	<0.0056	NA	NA	NA	NA	NA
Carbon Tetrachloride	<0.0057	<3.5	<0.0054	<0.0057	<0.0059	<3.7	<3.4	<1.6	<0.0060	<0.0061	<0.0056	NA	NA	NA	NA	NA
Chlorobenzene	<0.0057	<3.5	<0.0054	<0.0057	<0.0059	<3.7	<3.4	<1.6	<0.0060	<0.0061	<0.0056	<0.0010	<0.0010	<0.20	<0.0010	<1.0
Chloroethane	<0.0057	<3.5	<0.0054	<0.0057	<0.0059	<3.7	<3.4	<1.6	<0.0060	<0.0061	<0.0056	NA	NA	NA	NA	NA
Chloroform	<0.0057	<3.5	<0.0054	<0.0057	<0.0059	<3.7	<3.4	<1.6	<0.0060	<0.0061	0.0075	NA	NA	NA	NA	NA
Chloromethane	<0.0057	<3.5	<0.0054	<0.0057	<0.0059	2.5	<3.4	<1.6	<0.0060	<0.0061	<0.0056	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	<0.0057	<3.5	<0.0054	<0.0057	<0.0059	<3.7	<3.4	<1.6	<0.0060	<0.0061	NA	NA	NA	NA	NA	NA

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SUMMARY OF VOLATILE ORGANIC COMPOUNDS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	USTs #1 through #4	USTs #1 through #4	USTs #1 through #4	USTs #1 through #4	USTs #1 through #4
Location ID	BBL-SB1	BBL-SB1	BBL-SB2	BBL-SB2	BBL-SB3	BBL-SB3	BBL-SB4	BBL-SB4	BBL-SB5	BBL-SB5	SB-351	SB-02	SB-02	SB-03	SB-03	SB-04
Sample Depth (ft bgs):	4 - 6	8 - 10	0 - 2	8 - 10	6 - 8	8 - 10	0 - 2	8 - 10	0 - 2	20 - 22	0 - 2	6 - 8	10 - 12	8 - 10	14 - 16	6 - 8
Date Collected:	05/06/96	05/06/96	05/07/96	05/07/96	05/07/96	05/07/96	05/07/96	05/07/96	05/06/96	05/06/96	06/27/95	08/08/91	08/08/91	08/08/91	08/08/91	08/31/91
Volatile Organics																
trans-1,2-Dichloroethene	<0.0057	<3.5	<0.0054	<0.0057	<0.0059	<3.7	<3.4	<1.6	<0.0060	<0.0061	<0.0056	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.0056	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	<0.0057	<3.5	<0.0054	<0.0057	<0.0059	<3.7	<3.4	<1.6	<0.0060	<0.0061	<0.0056	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	<0.0057	<3.5	<0.0054	<0.0057	<0.0059	<3.7	<3.4	<1.6	<0.0060	<0.0061	<0.0056	NA	NA	NA	NA	NA
Total 1,3-Dichloropropenes	<0.0057	<3.5	<0.0054	<0.0057	<0.0059	<3.7	<3.4	<1.6	<0.0060	<0.0061	<0.0056	NA	NA	NA	NA	NA
Cyclohexane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	<0.0057	<3.5	<0.0054	<0.0057	<0.0059	<3.7	<3.4	<1.6	<0.0060	<0.0061	0.0011	NA	NA	NA	NA	NA
Dibromomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	<0.0057	5.4	<0.0054	0.0028	0.015	29	28	23	<0.0060	<0.0061	<0.0056	<0.0010	<0.0010	<0.20	<0.0010	<1.0
Iodomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isobutanol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methacrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	<0.0057	<14	<0.022	<0.022	<0.024	<15	<13	<6.4	<0.024	<0.024	NA	NA	NA	NA	NA	NA
Methylene Chloride	<0.0057	<3.5	<0.0054	<0.0057	<0.0059	<3.7	<3.4	<1.6	<0.0060	<0.0061	0.0012	NA	NA	NA	NA	NA
Propionitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	<0.0057	<3.5	<0.0054	<0.0057	<0.0059	<3.7	<3.4	<1.6	<0.0060	<0.0061	<0.0056	NA	NA	NA	NA	NA
Tetrachloroethene	<0.0057	<3.5	<0.0054	<0.0057	<0.0059	<3.7	<3.4	<1.6	<0.0060	<0.0061	0.01	NA	NA	NA	NA	NA
Toluene	0.03	<3.5	0.095	0.031	0.0055	2.9	3.8	4.3	<0.0060	0.0024	0.018	<0.0010	<0.0010	<0.20	<0.0010	<1.0
trans-1,4-Dichloro-2-butene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	<0.0057	<3.5	<0.0054	<0.0057	<0.0059	<3.7	<3.4	<1.6	<0.0060	<0.0061	0.055	NA	NA	NA	NA	NA
Trichlorofluoromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	<0.0057	<3.5	<0.0054	<0.0057	<0.0059	<3.7	<3.4	<1.6	<0.0060	<0.0061	<0.0056	NA	NA	NA	NA	NA
Total Xylenes	<0.0057	29	0.0027	0.01	0.09	45	120	90	<0.0060	<0.0061	0.0018	<0.0010	<0.0010	1	0.007	6.3

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SUMMARY OF VOLATILE ORGANIC COMPOUNDS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	USTs #1 through #4 SB-04 14 - 16 08/31/91	P1-B42 4 - 6 09/07/90	P1-B43 2- 4 09/07/90	P1-B44 2- 4 09/07/90	P1-B45 4 - 6 09/07/90	P1-B46 2- 4 09/07/90
Volatile Organics						
1,1,1,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	NA	NA	NA	NA
1,4-Dioxane	NA	NA	NA	NA	NA	NA
2-Butanone	NA	NA	NA	NA	NA	NA
2-Chloro-1,3-butadiene	NA	NA	NA	NA	NA	NA
2-Hexanone	NA	NA	NA	NA	NA	NA
3-Chloropropene	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA
Acetonitrile	NA	NA	NA	NA	NA	NA
Acrolein	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA
Benzene	<0.0010	< 0.010	< 0.010	0.025	0.13	< 0.010
Bromodichloromethane	NA	NA	NA	NA	NA	NA
Bromoform	NA	NA	NA	NA	NA	NA
Bromomethane	NA	NA	NA	NA	NA	NA
Carbon Disulfide	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	NA	NA	NA	NA	NA	NA
Chlorobenzene	<0.0010	NA	NA	NA	NA	NA
Chloroethane	NA	NA	NA	NA	NA	NA
Chloroform	NA	NA	NA	NA	NA	NA
Chloromethane	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA

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SUMMARY OF VOLATILE ORGANIC COMPOUNDS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	USTs #1 through #4 SB-04 14 - 16 08/31/91	P1-B42 4 - 6 09/07/90	P1-B43 2- 4 09/07/90	P1-B44 2- 4 09/07/90	P1-B45 4 - 6 09/07/90	P1-B46 2- 4 09/07/90
Volatile Organics						
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA
Total 1,3-Dichloropropenes	NA	NA	NA	NA	NA	NA
Cyclohexane	NA	NA	NA	NA	NA	NA
Dibromochloromethane	NA	NA	NA	NA	NA	NA
Dibromomethane	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	NA	NA	NA	NA	NA	NA
Ethylbenzene	<0.0010	< 0.010	< 0.010	< 0.010	0.045	< 0.010
Iodomethane	NA	NA	NA	NA	NA	NA
Isobutanol	NA	NA	NA	NA	NA	NA
Isopropylbenzene	NA	NA	NA	NA	NA	NA
Methacrylonitrile	NA	NA	NA	NA	NA	NA
Methyl acetate	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	NA	NA	NA	NA	NA	NA
Methylene Chloride	NA	NA	NA	NA	NA	NA
Propionitrile	NA	NA	NA	NA	NA	NA
Styrene	NA	NA	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA	NA	NA
Toluene	<0.0010	< 0.010	< 0.010	0.03	0.14	< 0.010
trans-1,4-Dichloro-2-butene	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	NA	NA	NA	NA	NA	NA
Vinyl Acetate	NA	NA	NA	NA	NA	NA
Vinyl Chloride	NA	NA	NA	NA	NA	NA
Total Xylenes	<0.0010	0.011	< 0.010	0.045	0.26	< 0.010

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TABLE I-2

SUMMARY OF SEMIVOLATILE ORGANIC COMPOUNDS SOIL ANALYTICAL RESULTS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	Units	Soil Saturation Concentration Screening Levels CSAT	Groundwater Contact Protection GCCP	Groundwater Surface Water Interface Protection GSIP	Industrial Direct Contact IDC	Industrial Drinking Water Protection IDWP	Industrial Particulate Soil Inhalation Criteria IPSIC	Industrial Soil Volatilization to Indoor Air Inhalation ISVIA	Finite VSIC for 2 Meter Source Thickness IVSIC2	Finite VSIC for 5 Meter Source Thickness IVSIC5	Infinite Source Volatile Soil Inhalation Criteria IVSICI	Residential Drinking Water Protection RDWP
Semivolatile Organics												
1,2,3,4-Tetrachlorobenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
1,2,3,5-Tetrachlorobenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
1,2,3-Trichlorobenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
1,2,4,5-Tetrachlorobenzene	mg/kg		1500	3.4	250000	1500						1500
1,2,4-Trichlorobenzene	mg/kg	1100	1100	1.8	1100	4.2	11000000	1100	34000	34000	34000	4.2
1,2-Dichlorobenzene	mg/kg	210	210	0.36	210	14	44000000	210	55000	46000	46000	14
1,2-Dinitrobenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
1,3,5-Trichlorobenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
1,3,5-Trinitrobenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
1,3-Dichlorobenzene	mg/kg	170	51	1.1	170	0.48						0.17
1,3-Dinitrobenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
1,4-Dichlorobenzene	mg/kg		140	0.29	1900	1.7	570000	100	340	260	260	1.7
1,4-Dinitrobenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
1,4-Naphthoquinone	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
1-Naphthylamine	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
2,3,4,6-Tetrachlorophenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
2,3,5,6-Tetrachlorophenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
2,4,5-Trichlorophenol	mg/kg		9100		73000	110	10000000					39
2,4,6-Trichlorophenol	mg/kg		200	0.33	3300	9.4	1300000					2.4
2,4-Diaminotoluene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
2,4-Dichlorophenol	mg/kg	1800	960	0.38	1800	4.2	2300000					1.5
2,4-Dimethylphenol	mg/kg		10000	7.6	36000	20	2100000					7.4
2,4-Dinitrophenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
2,4-Dinitrotoluene	mg/kg		170		220	0.64	20000					0.43
2,6-Dichlorophenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
2,6-Dinitrotoluene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
2-Acetylaminofluorene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
2-Chloronaphthalene	mg/kg		2300		180000	1800						620
2-Chlorophenol	mg/kg	19000	1900	0.44	4500	2.6						0.9
2-Methylnaphthalene	mg/kg		5500		26000	170						57
2-Methylphenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
2-Naphthylamine	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
2-Nitroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
2-Nitrophenol	mg/kg		1600		2000	1.2						0.4
2-Picoline	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
3,3'-Dichlorobenzidine	mg/kg		4.6	2	30	2	8200					2
3,3'-Dimethylbenzidine	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -

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SUMMARY OF SEMIVOLATILE ORGANIC COMPOUNDS SOIL ANALYTICAL RESULTS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	Units	Soil Saturation Concentration Screening Levels CSAT	Groundwater Contact Protection GCCP	Groundwater Surface Water Interface Protection GSIP	Industrial Direct Contact IDC	Industrial Drinking Water Protection IDWP	Industrial Particulate Soil Inhalation Criteria IPSIC	Industrial Soil Volatilization to Indoor Air Inhalation ISVIA	Finite VSIC for 2 Meter Source Thickness IVSIC2	Finite VSIC for 5 Meter Source Thickness IVSIC5	Infinite Source Volatile Soil Inhalation Criteria IVSICI	Residential Drinking Water Protection RDWP
Semivolatile Organics												
3-Methylcholanthrene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
3-Methylphenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
3-Nitroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
4,4'-Methylene-bis(2-chloroaniline)	mg/kg				32		110000					
4,6-Dinitro-2-methylphenol	mg/kg		190		260	0.83						0.83
4-Aminobiphenyl	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
4-Bromophenyl-phenylether	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
4-Chloro-3-Methylphenol	mg/kg		3000	0.28	15000	16						5.8
4-Chloroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
4-Chlorobenzilate	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
4-Chlorophenyl-phenylether	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
4-Methylphenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
4-Nitroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
4-Nitrophenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
4-Nitroquinoline-1-oxide	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
4-Phenylenediamine	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
5-Nitro-o-toluidine	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
7,12-Dimethylbenz(a)anthracene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
a,a'-Dimethylphenethylamine	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Acenaphthene	mg/kg		970	4.4	130000	880	6200000	350000	97000	97000	97000	300
Acenaphthylene	mg/kg		440		5200	17	1000000	3000	2700	2700	2700	5.9
Acetophenone	mg/kg	1100	1100		1100	88	14000000	1100	52000	52000	52000	30
Aniline	mg/kg	4500	2800	0.33	1500	4.4	29000					1.1
Anthracene	mg/kg		41		730000	41	29000000	1000000	1600000	1600000	1600000	41
Aramite	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Atrazine	mg/kg		110	0.15	330	0.06						0.06
Benzaldehyde	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Benzidine	mg/kg		1		1	1	59					1
Benzo(a)anthracene	mg/kg				80							
Benzo(a)pyrene	mg/kg				8		1900					
Benzo(b)fluoranthene	mg/kg				80							
Benzo(g,h,i)perylene	mg/kg				7000		350000					
Benzo(k)fluoranthene	mg/kg				800							
Benzoic Acid	mg/kg		70000		1000000	1800						640
Benzyl Alcohol	mg/kg	5800	5800		5800	580	150000000					200
Biphenyl	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
bis(2-Chloroethoxy)methane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
bis(2-Chloroethyl)ether	mg/kg	2200	110	0.3	58	0.17	12000	44	13	13	13	0.1
bis(2-Chloroisopropyl)ether	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -

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SUMMARY OF SEMIVOLATILE ORGANIC COMPOUNDS SOIL ANALYTICAL RESULTS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	Units	Soil Saturation Concentration Screening Levels CSAT	Groundwater Contact Protection GCCP	Groundwater Surface Water Interface Protection GSIP	Industrial Direct Contact IDC	Industrial Drinking Water Protection IDWP	Industrial Particulate Soil Inhalation Criteria IPSIC	Industrial Soil Volatilization to Indoor Air Inhalation ISVIA	Finite VSIC for 2 Meter Source Thickness IVSIC2	Finite VSIC for 5 Meter Source Thickness IVSIC5	Infinite Source Volatile Soil Inhalation Criteria IVSICI	Residential Drinking Water Protection RDWP
Semivolatile Organics												
bis(2-Ethylhexyl)phthalate	mg/kg	10000			10000		890000					
Butylbenzylphthalate	mg/kg	310	310	26	310	310	21000000					310
Caprolactam	mg/kg		1000000		310000	340	290000					120
Carbazole	mg/kg		820	1.1	2400	39						9.4
Chrysene	mg/kg				8000							
Diallate	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Dibenzo(a,h)anthracene	mg/kg				8							
Dibenzofuran	mg/kg			1.7								
Diethylphthalate	mg/kg	740	740	2.2	740	320	1500000					110
Dimethylphthalate	mg/kg	790	790		790	790	1500000					790
Di-n-Butylphthalate	mg/kg	760	760	11	760	760	1500000					760
Di-n-Octylphthalate	mg/kg	140000	140000		20000	140000						100000
Diphenylamine	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Ethyl Methacrylate	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Ethyl Methanesulfonate	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Fluoranthene	mg/kg		730	5.5	130000	730	4100000	1000000	880000	880000	890000	730
Fluorene	mg/kg		890	5.3	87000	890	4100000	1000000	150000	150000	150000	390
Hexachlorobenzene	mg/kg		8.2	0.35	37	1.8	8500	220	56	56	56	1.8
Hexachlorobutadiene	mg/kg	350	350	0.091	350	72	180000	350	460	460	460	26
Hexachlorocyclopentadiene	mg/kg	720	720		720	320	5900	56	60	60	60	320
Hexachloroethane	mg/kg		110	1.8	730	1.2	100000	79	1400	1400	660	0.43
Hexachlorophene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Hexachloropropene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Indeno(1,2,3-cd)pyrene	mg/kg				80							
Isophorone	mg/kg	2400	2400	11	2400	62	8200000					15
Isosafrole	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Methapyrilene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Methyl Methanesulfonate	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Naphthalene	mg/kg		2100	0.87	52000	100	88000	470	350	350	350	35
Nitrobenzene	mg/kg	490	220	3.6	340	0.33	21000	170	64	64	64	0.33
N-Nitrosodiethylamine	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
N-Nitrosodimethylamine	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
N-Nitroso-di-n-butylamine	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
N-Nitroso-di-n-propylamine	mg/kg	1500	7.2		5.4	0.33	2000					0.33
N-Nitrosodiphenylamine	mg/kg		700		7800	22						5.4
N-Nitrosomethylethylamine	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
N-Nitrosomorpholine	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
N-Nitrosopiperidine	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
N-Nitrosopyrrolidine	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -

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Semivolatile Organics												
o-Toluidine	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
p-Dimethylaminoazobenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Pentachlorobenzene	mg/kg	190	190	9.5	190	81						29
Pentachloroethane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Pentachloronitrobenzene	mg/kg		37		5500	37	150000	220	280	280	280	37
Pentachlorophenol	mg/kg		4.3	27 G	320	0.022	130000					0.022
Phenacetin	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Phenanthrene	mg/kg		1100	5.3	5200	160	2900	5100	190	190	190	56
Phenol	mg/kg	12000	12000	4.2	12000	260	18000000					88
Pronamide	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Pyrene	mg/kg		480		84000	480	2900000	1000000	780000	780000	780000	480
Pyridine	mg/kg	37	37		37	0.42	100000	2	97	40	9.8	0.4
Safrole	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Sulfotep	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Total Methylphenols	mg/kg		16000	1.4	36000	20	2900000					7.4

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Semivolatile Organics												
1,2,3,4-Tetrachlorobenzene	NA	NA	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,5-Tetrachlorobenzene	NA	NA	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	NA	NA	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4,5-Tetrachlorobenzene	3.40	3.40	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	1.80	1.80	ND	No/ND	<0.22	<26	<0.20	NA	<0.36	NA	NA	NA
1,2-Dichlorobenzene	0.36	0.36	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dinitrobenzene	NA	NA	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	NA	NA	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	NA	NA	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	0.17	0.17	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	NA	NA	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	0.29	0.29	ND	No/ND	NA	NA	NA	NA	<0.36	NA	NA	NA
1,4-Dinitrobenzene	NA	NA	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	NA	NA	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	NA	NA	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	NA	NA	ND	No/ND	<0.22	<26	<0.20	<0.42	<0.36 [<0.41]	<0.37	<0.36	<0.40
2,3,4,6-Tetrachlorophenol	NA	NA	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA
2,3,5,6-Tetrachlorophenol	NA	NA	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	39.00	39.00	ND	No/ND	<0.22	<26	<0.20	<0.42	<0.36 [<0.41]	<0.37	<0.36	<0.40
2,4,6-Trichlorophenol	0.33	0.33	ND	No/ND	<0.22	<26	<0.20	<0.42	<0.36 [<0.41]	<0.37	<0.36	<0.40
2,4-Diaminotoluene	NA	NA	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	0.38	0.38	ND	No/ND	<0.22	<26	<0.20	<0.42	<0.36 [<0.41]	<0.37	<0.36	<0.40
2,4-Dimethylphenol	7.40	7.40	0.110	No	<0.22	<26	<0.20	<0.42	<0.36 [<0.41]	<0.37	<0.36	<0.40
2,4-Dinitrophenol	NA	NA	ND	No/ND	<1.1	<130	<0.99	<0.84	<0.72 [<0.82]	<0.74	<0.71	<0.80
2,4-Dinitrotoluene	0.43	0.43	ND	No/ND	<0.22	<26	<0.20	<0.42	<0.36 [<0.41]	<0.37	<0.36	<0.40
2,6-Dichlorophenol	NA	NA	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	NA	NA	ND	No/ND	<0.22	<26	<0.20	<0.42	<0.36 [<0.41]	<0.37	<0.36	<0.40
2-Acetylaminofluorene	NA	NA	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	620.00	620.00	ND	No/ND	<0.22	<26	<0.20	<0.42	<0.36 [<0.41]	<0.37	<0.36	<0.40
2-Chlorophenol	0.44	0.44	ND	No/ND	<0.22	<26	<0.20	<0.42	<0.36 [<0.41]	<0.37	<0.36	<0.40
2-Methylnaphthalene	57.00	57.00	1.8	No	0.03	<26	0.39	<0.42	0.056 [<0.41]	<0.37	0.24	<0.40
2-Methylphenol	NA	NA	0.077	Yes/NA	<0.22	<26	<0.20	<0.42	<0.36 [<0.41]	<0.37	<0.36	<0.40
2-Naphthylamine	NA	NA	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	NA	NA	ND	No/ND	<1.1	<130	<0.99	<0.42	<0.36 [<0.41]	<0.37	<0.36	<0.40
2-Nitrophenol	0.40	0.40	ND	No/ND	<0.22	<26	<0.20	R	<0.36 [<0.41]	<0.37	<0.36	<0.40
2-Picoline	NA	NA	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	2.00	2.00	ND	No/ND	<0.44	<52	<0.41	<0.42	<0.36 [<0.41]	<0.37	<0.36	<0.40
3,3'-Dimethylbenzidine	NA	NA	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA

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Semivolatile Organics												
3-Methylcholanthrene	NA	NA	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	NA	NA	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	NA	NA	ND	No/ND	<1.1	<130	<0.99	<0.42	<0.36 [<0.41]	<0.37	<0.36	<0.40
4,4'-Methylene-bis(2-chloroaniline)	32.00	32.00	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	0.83	0.83	ND	No/ND	<1.1	<130	<0.99	<0.84	<0.72 [<0.82]	<0.74	<0.71	<0.80
4-Aminobiphenyl	NA	NA	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	NA	NA	ND	No/ND	<0.22	<26	<0.20	<0.42	<0.36 [<0.41]	<0.37	<0.36	<0.40
4-Chloro-3-Methylphenol	0.28	0.28	ND	No/ND	<0.22	<26	<0.20	<0.42	<0.36 [<0.41]	<0.37	<0.36	<0.40
4-Chloroaniline	NA	NA	0.053	Yes/NA	<0.22	<26	<0.20	<0.42	<0.36 [<0.41]	<0.37	<0.36	<0.40
4-Chlorobenzilate	NA	NA	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	NA	NA	ND	No/ND	<0.22	<26	<0.20	<0.42	<0.36 [<0.41]	<0.37	<0.36	<0.40
4-Methylphenol	NA	NA	0.25	Yes/NA	<0.22	<26	<0.20	<0.42	<0.36 [<0.41]	<0.37	<0.36	<0.40
4-Nitroaniline	NA	NA	ND	No/ND	<1.1	<130	<0.99	<0.42	<0.36 [<0.41]	<0.37	<0.36	<0.40
4-Nitrophenol	NA	NA	ND	No/ND	<1.1	<130	<0.99	<0.42	R [R]	R	R	R
4-Nitroquinoline-1-oxide	NA	NA	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	NA	NA	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	NA	NA	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	NA	NA	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	NA	NA	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	4.40	4.40	3.30	No	0.12	<26	0.038	<0.42	<0.36 [<0.41]	<0.37	<0.36	<0.40
Acenaphthylene	5.90	5.90	0.33	No	<0.22	<26	<0.20	<0.42	<0.36 [<0.41]	<0.37	<0.36	<0.40
Acetophenone	30.00	30.00	ND	No/ND	NA	NA	NA	<0.42	<0.36 [<0.41]	<0.37	<0.36	<0.40
Aniline	0.33	0.33	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	41.00	41.00	8.50	No	0.35	<26	0.052	<0.42	<0.36 [<0.41]	<0.37	<0.36	<0.40
Aramite	NA	NA	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	0.06	0.06	ND	No/ND	NA	NA	NA	<0.42	<0.36 [<0.41]	<0.37	<0.36	<0.40
Benzaldehyde	NA	NA	ND	No/ND	NA	NA	NA	<0.42	<0.36 [<0.41]	<0.37	<0.36	<0.40
Benzidine	1.00	1.00	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	80.00	80.00	8.10	No	0.6	<26	0.06	<0.42	<0.36 [0.070]	<0.37	0.044	<0.40
Benzo(a)pyrene	8.00	8.00	6.60	No	0.41	<26	0.049	<0.42	<0.36 [0.074]	<0.37	<0.36	<0.40
Benzo(b)fluoranthene	80.00	80.00	6.7	No	0.59	<26	0.08	<0.42	<0.36 [0.078]	<0.37	0.046	<0.40
Benzo(g,h,i)perylene	7000.00	7000.00	2.60	No	0.12	<26	0.038	<0.42	<0.36 [0.045]	<0.37	<0.36	<0.40
Benzo(k)fluoranthene	800.00	800.00	2.80	No	<0.22	<26	0.037	<0.42	0.042 [0.044]	<0.37	<0.36	<0.40
Benzoic Acid	640.00	640.00	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	200.00	200.00	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	NA	NA	0.12	Yes/NA	NA	NA	NA	<0.42	<0.36 [<0.41]	<0.37	<0.36	<0.40
bis(2-Chloroethoxy)methane	NA	NA	ND	No/ND	<0.22	<26	<0.20	<0.42	<0.36 [<0.41]	<0.37	<0.36	<0.40
bis(2-Chloroethyl)ether	0.10	0.10	0.01	No	<0.22	<26	<0.20	<0.42	<0.36 [<0.41]	<0.37	<0.36	<0.40
bis(2-Chloroisopropyl)ether	NA	NA	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE I-2

SUMMARY OF SEMIVOLATILE ORGANIC COMPOUNDS SOIL ANALYTICAL RESULTS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	Minimum Criteria	Screening Level	Maximum Concentration	Maximum Concentration Exceeds Screening Level?	Center Street Area MW-145WT 7 - 17 06/08/95	Center Street Area SB-319 14 - 16 06/13/95	Central Type III Landfill SB-312 8 - 10 06/06/95	CTC Parking Lot PL-1 0.75 - 1.21 08/10/01	CTC Parking Lot PL-2 0.75 - 1.67 08/10/01	CTC Parking Lot PL-3 0.67 - 1.67 08/10/01	CTC Parking Lot PL-4 0.75 - 1.5 08/10/01	CTC Parking Lot VE-1 0.75 - 1.58 08/10/01
Semivolatile Organics												
bis(2-Ethylhexyl)phthalate	10000.00	10000.00	4.3	No	<0.22	<26	<0.20	<0.42	<0.36 [<0.41]	<0.37	<0.36	<0.40
Butylbenzylphthalate	26.00	26.00	9.2	No	<0.22	<26	<0.20	<0.42	<0.36 [<0.41]	<0.37	<0.36	<0.40
Caprolactam	120.00	120.00	ND	No/ND	NA	NA	NA	<0.42	<0.36 [<0.41]	<0.37	<0.36	<0.40
Carbazole	1.10	1.10	3.6	Yes	0.12	<26	0.066	<0.42	<0.36 [<0.41]	<0.37	<0.36	<0.40
Chrysene	8000.00	8000.00	7.6	No	0.72	<26	0.085	<0.42	0.058 [0.093]	<0.37	0.11	<0.40
Diallate	NA	NA	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	8.00	8.00	0.11	No	0.049	<26	<0.20	<0.42	<0.36 [<0.41]	<0.37	<0.36	<0.40
Dibenzofuran	1.70	1.70	2.4	Yes	0.054	<26	0.084	<0.42	<0.36 [<0.41]	<0.37	0.043	<0.40
Diethylphthalate	2.20	2.20	ND	No/ND	<0.22	<26	<0.20	<0.42	<0.36 [<0.41]	<0.37	<0.36	<0.40
Dimethylphthalate	790.00	790.00	ND	No/ND	<0.22	<26	<0.20	<0.42	<0.36 [<0.41]	<0.37	<0.36	<0.40
Di-n-Butylphthalate	11.00	11.00	3.8	No	2.8	<26	1	<0.42	<0.36 [<0.41]	<0.37	<0.36	<0.40
Di-n-Octylphthalate	20000.00	20000.00	ND	No/ND	<0.22	<26	<0.20	<0.42	<0.36 [<0.41]	<0.37	<0.36	<0.40
Diphenylamine	NA	NA	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	NA	NA	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	NA	NA	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	5.50	5.50	21	Yes	1.5	<26	0.23	<0.42	0.060 [0.18]	<0.37	<0.36	<0.40
Fluorene	5.30	5.30	4.0	No	0.13	<26	0.074	<0.42	<0.36 [<0.41]	<0.37	0.099	<0.40
Hexachlorobenzene	0.35	0.35	0.11	No	<0.22	<26	<0.20	<0.42	<0.36 [<0.41]	<0.37	<0.36	<0.40
Hexachlorobutadiene	0.09	0.09	ND	No/ND	<0.22	<26	<0.20	<0.42	<0.36 [<0.41]	<0.37	<0.36	<0.40
Hexachlorocyclopentadiene	56.00	56.00	ND	No/ND	<0.22	<26	<0.20	<0.42	<0.36 [<0.41]	<0.37	<0.36	<0.40
Hexachloroethane	0.43	0.43	ND	No/ND	<0.22	<26	<0.20	<0.42	<0.36 [<0.41]	<0.37	<0.36	<0.40
Hexachlorophene	NA	NA	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloropropene	NA	NA	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	80.00	80.00	2.9	No	0.13	<26	0.023	<0.42	<0.36 [<0.41]	<0.37	<0.36	<0.40
Isophorone	11.00	11.00	0.96	No	<0.22	<26	0.12	<0.42	<0.36 [<0.41]	<0.37	<0.36	<0.40
Isosafrole	NA	NA	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	NA	NA	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	NA	NA	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	0.87	0.87	1.1	Yes	<0.22	<26	0.31	<0.42	0.055 [<0.41]	<0.37	0.15	0.049
Nitrobenzene	0.33	0.33	ND	No/ND	<0.22	<26	<0.20	<0.42	<0.36 [<0.41]	<0.37	<0.36	<0.40
N-Nitrosodiethylamine	NA	NA	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	NA	NA	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	NA	NA	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	0.33	0.33	ND	No/ND	<0.22	<26	<0.20	<0.42	<0.36 [<0.41]	<0.37	<0.36	<0.40
N-Nitrosodiphenylamine	5.40	5.40	ND	No/ND	<0.22	<26	<0.20	<0.42	<0.36 [<0.41]	<0.37	<0.36	<0.40
N-Nitrosomethylethylamine	NA	NA	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	NA	NA	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	NA	NA	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	NA	NA	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA

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SUMMARY OF SEMIVOLATILE ORGANIC COMPOUNDS SOIL ANALYTICAL RESULTS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	Minimum Criteria	Screening Level	Maximum Concentration	Maximum Concentration Exceeds Screening Level?	Center Street Area MW-145WT 7 - 17 06/08/95	Center Street Area SB-319 14 - 16 06/13/95	Central Type III Landfill SB-312 8 - 10 06/06/95	CTC Parking Lot PL-1 0.75 - 1.21 08/10/01	CTC Parking Lot PL-2 0.75 - 1.67 08/10/01	CTC Parking Lot PL-3 0.67 - 1.67 08/10/01	CTC Parking Lot PL-4 0.75 - 1.5 08/10/01	CTC Parking Lot VE-1 0.75 - 1.58 08/10/01
Semivolatile Organics												
o-Toluidine	NA	NA	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	NA	NA	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	9.50	9.50	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	NA	NA	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	37.00	37.00	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	0.02	0.02	ND	No/ND	<1.1	<130	<0.99	<0.42	<0.36 [<0.41]	<0.37	<0.36	<0.40
Phenacetin	NA	NA	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	5.30	5.30	23	Yes	1	7.7	0.35	<0.42	0.11 [0.14]	<0.37	0.28	<0.40
Phenol	4.20	4.20	1.6	No	<0.22	<26	0.051	<0.42	<0.36 [<0.41]	<0.37	<0.36	<0.40
Pronamide	NA	NA	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	480.00	480.00	17	No	0.96	<26	0.17	<0.42	0.054 [0.13]	<0.37	0.12	<0.40
Pyridine	0.40	0.40	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	NA	NA	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	NA	NA	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	1.40	1.40	0.077	No	<0.22	<26	<0.20	<0.42	<0.36 [<0.41]	<0.37	<0.36	<0.40

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SUMMARY OF SEMIVOLATILE ORGANIC COMPOUNDS SOIL ANALYTICAL RESULTS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area	CTC	Drum Remediation/ Wetland Area	Drum Remediation/ Wetland Area	Drum Remediation/ Wetland Area	Drum Remediation/ Wetland Area	Drum Remediation/ Wetland Area	Drum Remediation/ Wetland Area	Drum Remediation/ Wetland Area	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill
Location ID	Parking Lot	MW-126WT	WMB-1	WMB-2	WMB-3	WMB-4	WMB-5	WMB-6	SB-313	SB-389	SB-390	SB-391
Sample Depth (ft bgs):	VE-2	14 - 16	3 - 3.5	3 - 3.5	5 - 5.5	0.5 - 1	0.5 - 1	4 - 4.5	4 - 6	0 - 0.5	0 - 0.5	0 - 0.5
Date Collected:	0.92 - 1.67 08/10/01	02/08/95	01/22/97	01/22/97	01/22/97	01/22/97	01/22/97	01/22/97	06/07/95	08/11/00	08/11/00	08/11/00
Semivolatile Organics												
1,2,3,4-Tetrachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,5-Tetrachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4,5-Tetrachlorobenzene	NA	<0.19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	NA	<0.19	<0.19	<0.23	<0.20	<0.24	<0.23	<0.22	<0.74	<0.39	<0.58	<0.47
1,2-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.39	<0.58	<0.47
1,2-Dinitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	NA	R	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.39	<0.58	<0.47
1,3-Dinitrobenzene	NA	<0.19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.39	<0.58	<0.47
1,4-Dinitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	NA	<3.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	NA	<0.19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	<0.37	<0.19	<0.19	<0.23	<0.20	<0.24	<0.23	<0.22	<0.74	<0.39	<0.58	<0.47
2,3,4,6-Tetrachlorophenol	NA	<0.91	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,5,6-Tetrachlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	<0.37	<0.19	<0.19	<0.23	<0.20	<0.24	<0.23	<0.22	<0.74	<0.39	<0.58	<0.47
2,4,6-Trichlorophenol	<0.37	<0.19	<0.19	<0.23	<0.20	<0.24	<0.23	<0.22	<0.74	<0.39	<0.58	<0.47
2,4-Diaminotoluene	NA	<0.19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	<0.37	<0.19	<0.19	<0.23	<0.20	<0.24	<0.23	<0.22	<0.74	<0.39	<0.58	<0.47
2,4-Dimethylphenol	<0.37	<0.19	<0.19	<0.23	<0.20	<0.24	<0.23	<0.22	<0.74	<0.39	<0.58	<0.47
2,4-Dinitrophenol	<0.74	<0.91	<0.94	<1.1	<0.97	<1.1	<1.1	<1.1	<3.6	<1.9	<2.8	<2.3
2,4-Dinitrotoluene	<0.37	<0.19	<0.19	<0.23	<0.20	<0.24	<0.23	<0.22	<0.74	<0.39	<0.58	<0.47
2,6-Dichlorophenol	NA	<0.19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	<0.37	<0.19	<0.19	<0.23	<0.20	<0.24	<0.23	<0.22	<0.74	<0.39	<0.58	<0.47
2-Acetylaminofluorene	NA	<0.38	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	<0.37	<0.19	<0.19	<0.23	<0.20	<0.24	<0.23	<0.22	<0.74	<0.39	<0.58	<0.47
2-Chlorophenol	<0.37	<0.19	<0.19	<0.23	<0.20	<0.24	<0.23	<0.22	<0.74	<0.39	<0.58	<0.47
2-Methylnaphthalene	0.054	<0.19	<0.19	<0.23	0.075	<0.24	<0.23	<0.22	0.34	0.3	<0.58	<0.47
2-Methylphenol	<0.37	<0.19	<0.19	<0.23	<0.20	<0.24	<0.23	<0.22	<0.74	<0.39	<0.58	<0.47
2-Naphthylamine	NA	<0.19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	<0.37	<0.91	<0.94	<1.1	<0.97	<1.1	<1.1	<1.1	<3.6	<1.9	<2.8	<2.3
2-Nitrophenol	<0.37	<0.19	<0.19	<0.23	<0.20	<0.24	<0.23	<0.22	<0.74	<0.39	<0.58	<0.47
2-Picoline	NA	<0.38	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	<0.37	<0.38	<0.39	<0.47	<0.40	<0.47	<0.46	<0.45	<1.5	<1.9	<2.8	<2.3
3,3'-Dimethylbenzidine	NA	<0.91	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE I-2

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area	CTC	Drum Remediation/ Wetland Area	Drum Remediation/ Wetland Area	Drum Remediation/ Wetland Area	Drum Remediation/ Wetland Area	Drum Remediation/ Wetland Area	Drum Remediation/ Wetland Area	Drum Remediation/ Wetland Area	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill
Location ID	Parking Lot	MW-126WT	WMB-1	WMB-2	WMB-3	WMB-4	WMB-5	WMB-6	SB-313	SB-389	SB-390	SB-391
Sample Depth (ft bgs):	VE-2	14 - 16	3 - 3.5	3 - 3.5	5 - 5.5	0.5 - 1	0.5 - 1	4 - 4.5	4 - 6	0 - 0.5	0 - 0.5	0 - 0.5
Date Collected:	08/10/01	02/08/95	01/22/97	01/22/97	01/22/97	01/22/97	01/22/97	01/22/97	06/07/95	08/11/00	08/11/00	08/11/00
Semivolatile Organics												
3-Methylcholanthrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	NA	<0.19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	<0.37	<0.91	<0.94	<1.1	<0.97	<1.1	<1.1	<1.1	<3.6	<1.9	<2.8	<2.3
4,4'-Methylene-bis(2-chloroaniline)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	<0.74	<0.91	<0.94	<1.1	<0.97	<1.1	<1.1	<1.1	<3.6	<1.9	<2.8	<2.3
4-Aminobiphenyl	NA	<0.91	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	<0.37	<0.19	<0.19	<0.23	<0.20	<0.24	<0.23	<0.22	<0.74	<0.39	<0.58	<0.47
4-Chloro-3-Methylphenol	<0.37	<0.19	<0.19	<0.23	<0.20	<0.24	<0.23	<0.22	<0.74	<0.39	<0.58	<0.47
4-Chloroaniline	<0.37	<0.19	<0.19	<0.23	<0.20	<0.24	<0.23	<0.22	<0.74	<0.39	<0.58	<0.47
4-Chlorobenzilate	NA	<0.19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	<0.37	<0.19	<0.19	<0.23	<0.20	<0.24	<0.23	<0.22	<0.74	<0.39	<0.58	<0.47
4-Methylphenol	<0.37	<0.19	<0.19	<0.23	<0.20	<0.24	<0.23	<0.22	0.25	<0.39	<0.58	<0.47
4-Nitroaniline	<0.37	<0.91	<0.94	<1.1	<0.97	<1.1	<1.1	<1.1	<3.6	<1.9	<2.8	<2.3
4-Nitrophenol	R	<0.91	<0.94	<1.1	<0.97	<1.1	<1.1	<1.1	<3.6	<1.9	<2.8	<2.3
4-Nitroquinoline-1-oxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	NA	<0.91	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	NA	<0.19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	NA	<1.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	NA	<1.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	<0.37	<0.19	<0.19	<0.23	<0.20	<0.24	<0.23	<0.22	<0.74	<0.39	<0.58	<0.47
Acenaphthylene	<0.37	<0.19	<0.19	<0.23	<0.20	<0.24	<0.23	<0.22	<0.74	<0.39	<0.58	<0.47
Acetophenone	<0.37	<0.19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	NA	<0.19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	<0.37	<0.19	<0.19	0.077	<0.20	<0.24	<0.23	<0.22	<0.74	<0.39	<0.58	<0.47
Aramite	NA	<0.91	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	<0.37	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	<0.37	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	NA	<0.19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	0.13	NA	0.14	0.25	<0.20	0.055	<0.23	<0.22	0.19	0.061	<0.58	<0.47
Benzo(a)pyrene	0.15	<0.19	0.21	0.27	<0.20	0.084	<0.23	<0.22	<0.74	0.043	<0.58	<0.47
Benzo(b)fluoranthene	0.16	<0.19	0.24	0.34	<0.20	0.096	<0.23	<0.22	<0.74	0.082	<0.58	<0.47
Benzo(g,h,i)perylene	0.14	<0.19	0.18	0.17	<0.20	0.053	<0.23	<0.22	0.078	<0.39	<0.58	<0.47
Benzo(k)fluoranthene	0.13	<0.19	0.09	0.15	<0.20	<0.24	<0.23	<0.22	<0.74	<0.39	<0.58	<0.47
Benzoic Acid	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	NA	<0.19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	<0.37	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	<0.37	<0.19	<0.19	<0.23	<0.20	<0.24	<0.23	<0.22	<0.74	<0.39	<0.58	<0.47
bis(2-Chloroethyl)ether	<0.37	<0.19	<0.19	<0.23	<0.20	<0.24	<0.23	<0.22	<0.74	<0.39	<0.58	<0.47
bis(2-Chloroisopropyl)ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE I-2

SUMMARY OF SEMIVOLATILE ORGANIC COMPOUNDS SOIL ANALYTICAL RESULTS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area	CTC	Drum Remediation/ Wetland Area	Drum Remediation/ Wetland Area	Drum Remediation/ Wetland Area	Drum Remediation/ Wetland Area	Drum Remediation/ Wetland Area	Drum Remediation/ Wetland Area	Drum Remediation/ Wetland Area	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill
Location ID	Parking Lot VE-2	MW-126WT	WMB-1	WMB-2	WMB-3	WMB-4	WMB-5	WMB-6	SB-313	SB-389	SB-390	SB-391
Sample Depth (ft bgs):	0.92 - 1.67	14 - 16	3 - 3.5	3 - 3.5	5 - 5.5	0.5 - 1	0.5 - 1	4 - 4.5	4 - 6	0 - 0.5	0 - 0.5	0 - 0.5
Date Collected:	08/10/01	02/08/95	01/22/97	01/22/97	01/22/97	01/22/97	01/22/97	01/22/97	06/07/95	08/11/00	08/11/00	08/11/00
Semivolatile Organics												
bis(2-Ethylhexyl)phthalate	<0.37	<0.19	<0.19	0.11	<0.20	<0.24	<0.23	<0.22	0.5	<0.39	<0.58	<0.47
Butylbenzylphthalate	<0.37	<0.19	<0.19	<0.23	<0.20	<0.24	<0.23	<0.22	<0.74	<0.39	<0.58	<0.47
Caprolactam	<0.37	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	<0.37	<0.19	<0.19	<0.23	<0.20	<0.24	<0.23	<0.22	<0.74	<0.39	<0.58	<0.47
Chrysene	0.17	<0.19	0.18	0.21	<0.20	0.072	<0.23	<0.22	0.29	0.13	<0.58	<0.47
Diallate	NA	<0.19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	<0.37	<0.19	<0.19	<0.23	<0.20	<0.24	<0.23	<0.22	<0.74	<0.39	<0.58	<0.47
Dibenzofuran	<0.37	<0.19	<0.19	<0.23	<0.20	<0.24	<0.23	<0.22	<0.74	0.075	<0.58	<0.47
Diethylphthalate	<0.37	<0.19	<0.19	<0.23	<0.20	<0.24	<0.23	<0.22	<0.74	<0.39	<0.58	<0.47
Dimethylphthalate	<0.37	<0.19	<0.19	<0.23	<0.20	<0.24	<0.23	<0.22	<0.74	<0.39	<0.58	<0.47
Di-n-Butylphthalate	<0.37	<0.20	<0.19	<0.23	<0.20	<0.24	<0.23	<0.22	<0.74	<0.39	<0.58	<0.47
Di-n-Octylphthalate	<0.37	<0.19	<0.19	<0.23	<0.20	<0.24	<0.23	<0.22	<0.74	<0.39	<0.58	<0.47
Diphenylamine	NA	<0.19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	NA	<0.0057	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	NA	<0.19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	0.21	<0.19	0.29	0.38	<0.20	<0.24	<0.23	<0.22	<0.74	0.13	<0.58	<0.47
Fluorene	<0.37	<0.19	<0.19	<0.23	<0.20	<0.24	<0.23	<0.22	<0.74	<0.39	<0.58	<0.47
Hexachlorobenzene	<0.37	<0.19	<0.19	<0.23	<0.20	<0.24	<0.23	<0.22	<0.74	<0.39	<0.58	<0.47
Hexachlorobutadiene	<0.37	<0.19	<0.19	<0.23	<0.20	<0.24	<0.23	<0.22	<0.74	<0.39	<0.58	<0.47
Hexachlorocyclopentadiene	<0.37	<0.19	<0.19	<0.23	<0.20	<0.24	<0.23	<0.22	<0.74	<1.9	<2.8	<2.3
Hexachloroethane	<0.37	<0.19	<0.19	<0.23	<0.20	<0.24	<0.23	<0.22	<0.74	<0.39	<0.58	<0.47
Hexachlorophene	NA	<0.19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloropropene	NA	<1.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.11	<0.19	0.32	0.35	<0.20	<0.24	<0.23	<0.22	<0.74	<0.39	<0.58	<0.47
Isophorone	<0.37	<0.19	<0.19	<0.23	<0.20	<0.24	<0.23	<0.22	<0.74	<0.39	<0.58	<0.47
Isosafrole	NA	<0.19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	NA	<1.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	NA	<0.19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	0.037	<0.19	<0.19	<0.23	<0.20	<0.24	<0.23	<0.22	<0.74	0.27	<0.58	<0.47
Nitrobenzene	<0.37	<0.19	<0.19	<0.23	<0.20	<0.24	<0.23	<0.22	<0.74	<0.39	<0.58	<0.47
N-Nitrosodiethylamine	NA	<0.19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	NA	<0.19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	NA	<0.19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	<0.37	<0.19	<0.19	<0.23	<0.20	<0.24	<0.23	<0.22	<0.74	<0.39	<0.58	<0.47
N-Nitrosodiphenylamine	<0.37	<0.19	<0.19	<0.23	<0.20	<0.24	<0.23	<0.22	<0.74	<0.39	<0.58	<0.47
N-Nitrosomethylethylamine	NA	<0.19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	NA	<0.19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	NA	<0.19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	NA	<0.19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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SUMMARY OF SEMIVOLATILE ORGANIC COMPOUNDS SOIL ANALYTICAL RESULTS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area	CTC	Drum Remediation/ Wetland Area	Drum Remediation/ Wetland Area	Drum Remediation/ Wetland Area	Drum Remediation/ Wetland Area	Drum Remediation/ Wetland Area	Drum Remediation/ Wetland Area	Drum Remediation/ Wetland Area	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill
Location ID	Parking Lot VE-2	MW-126WT	WMB-1	WMB-2	WMB-3	WMB-4	WMB-5	WMB-6	SB-313	SB-389	SB-390	SB-391
Sample Depth (ft bgs):	0.92 - 1.67	14 - 16	3 - 3.5	3 - 3.5	5 - 5.5	0.5 - 1	0.5 - 1	4 - 4.5	4 - 6	0 - 0.5	0 - 0.5	0 - 0.5
Date Collected:	08/10/01	02/08/95	01/22/97	01/22/97	01/22/97	01/22/97	01/22/97	01/22/97	06/07/95	08/11/00	08/11/00	08/11/00
Semivolatile Organics												
o-Toluidine	NA	<0.19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	NA	<0.38	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	NA	<0.19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	NA	<0.91	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	NA	<0.91	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	<0.37	<0.91	<0.94	<1.1	<0.97	<1.1	<1.1	<1.1	<3.6	<0.39	<0.58	<0.47
Phenacetin	NA	<0.91	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	0.11	<0.19	0.16	0.3	<0.20	<0.24	<0.23	<0.22	<0.74	0.41	<0.58	<0.47
Phenol	<0.37	<0.19	<0.19	<0.23	<0.20	<0.24	<0.23	<0.22	<0.74	<0.39	<0.58	<0.47
Pronamide	NA	<0.38	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	0.18	<0.19	0.26	0.34	<0.20	0.1	<0.23	<0.22	0.41	0.12	<0.58	<0.47
Pyridine	NA	<0.19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	NA	<0.19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	NA	<0.91	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	<0.37	<0.19	<0.19	<0.23	<0.20	<0.24	<0.23	<0.22	<0.74	<0.39	<0.58	<0.47

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SUMMARY OF SEMIVOLATILE ORGANIC COMPOUNDS SOIL ANALYTICAL RESULTS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	LNAPL Assessment Area
Location ID	SB-392	SB-393	SB-394	SB-395	SB-396	SB-397	SB-398	SB-399	SB-400	SB-406	SB-412	SB-418	SB-01A
Sample Depth (ft bgs):	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	1 - 3
Date Collected:	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/23/01
Semivolatile Organics													
1,2,3,4-Tetrachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,5-Tetrachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4,5-Tetrachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	<0.45	<0.44	<0.44	<0.44	<0.60	<0.46	<0.40	<0.41	<0.53	<0.36	<0.58	<0.43 [<0.46]	<0.35
1,2-Dichlorobenzene	<0.45	<0.44	<0.44	<0.44	<0.60	<0.46	<0.40	<0.41	<0.53	<0.36	<0.58	<0.43 [<0.46]	<0.35
1,2-Dinitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	<0.45	<0.44	<0.44	<0.44	<0.60	<0.46	<0.40	<0.41	<0.53	<0.36	<0.58	<0.43 [<0.46]	<0.35
1,3-Dinitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	<0.45	<0.44	<0.44	<0.44	<0.60	<0.46	<0.40	<0.41	<0.53	<0.36	<0.58	<0.43 [<0.46]	<0.35
1,4-Dinitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	<0.45	<0.44	<0.44	<0.44	<0.60	<0.46	<0.40	<0.41	<0.53	<0.36	<0.58	<0.43 [<0.46]	<0.35
2,3,4,6-Tetrachlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,5,6-Tetrachlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	<0.45	<0.44	<0.44	<0.44	<0.60	<0.46	<0.40	<0.41	<0.53	<0.36	<0.58	<0.43 [<0.46]	<0.35
2,4,6-Trichlorophenol	<0.45	<0.44	<0.44	<0.44	<0.60	<0.46	<0.40	<0.41	<0.53	<0.36	<0.58	<0.43 [<0.46]	<0.35
2,4-Diaminotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	<0.45	<0.44	<0.44	<0.44	<0.60	<0.46	<0.40	<0.41	<0.53	<0.36	<0.58	<0.43 [<0.46]	<0.35
2,4-Dimethylphenol	<0.45	<0.44	<0.44	<0.44	<0.60	<0.46	<0.40	<0.41	<0.53	<0.36	<0.58	<0.43 [<0.46]	<0.35
2,4-Dinitrophenol	<2.2	<2.1	<2.2	<2.1	<2.9	<2.3	<1.9	<2.0	<2.6	<1.7	<2.8	<2.1 [<2.2]	<0.70
2,4-Dinitrotoluene	<0.45	<0.44	<0.44	<0.44	<0.60	<0.46	<0.40	<0.41	<0.53	<0.36	<0.58	<0.43 [<0.46]	<0.35
2,6-Dichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	<0.45	<0.44	<0.44	<0.44	<0.60	<0.46	<0.40	<0.41	<0.53	<0.36	<0.58	<0.43 [<0.46]	<0.35
2-Acetylaminofluorene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	<0.45	<0.44	<0.44	<0.44	<0.60	<0.46	<0.40	<0.41	<0.53	<0.36	<0.58	<0.43 [<0.46]	<0.35
2-Chlorophenol	<0.45	<0.44	<0.44	<0.44	<0.60	<0.46	<0.40	<0.41	<0.53	<0.36	<0.58	<0.43 [<0.46]	<0.35
2-Methylnaphthalene	<0.45	<0.44	<0.44	<0.44	1.5	0.26	<0.40	<0.41	<0.53	0.73	0.24	<0.43 [<0.46]	0.057
2-Methylphenol	<0.45	<0.44	<0.44	<0.44	0.077	<0.46	<0.40	<0.41	<0.53	0.04	<0.58	<0.43 [<0.46]	<0.35
2-Naphthylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	<2.2	<2.1	<2.2	<2.1	<2.9	<2.3	<1.9	<2.0	<2.6	<1.7	<2.8	<2.1 [<2.2]	<0.35
2-Nitrophenol	<0.45	<0.44	<0.44	<0.44	<0.60	<0.46	<0.40	<0.41	<0.53	<0.36	<0.58	<0.43 [<0.46]	<0.35
2-Picoline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	<2.2	<2.1	<2.2	<2.1	<2.9	<2.3	<1.9	<2.0	<2.6	<1.7	<2.8	<2.1 [<2.2]	<0.35
3,3'-Dimethylbenzidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	LNAPL Assessment Area
Location ID	SB-392	SB-393	SB-394	SB-395	SB-396	SB-397	SB-398	SB-399	SB-400	SB-406	SB-412	SB-418	SB-01A
Sample Depth (ft bgs):	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	1 - 3
Date Collected:	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/23/01
Semivolatile Organics													
3-Methylcholanthrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	<2.2	<2.1	<2.2	<2.1	<2.9	<2.3	<1.9	<2.0	<2.6	<1.7	<2.8	<2.1 [<2.2]	<0.35
4,4'-Methylene-bis(2-chloroaniline)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	<2.2	<2.1	<2.2	<2.1	<2.9	<2.3	<1.9	<2.0	<2.6	<1.7	<2.8	<2.1 [<2.2]	<0.70
4-Aminobiphenyl	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	<0.45	<0.44	<0.44	<0.44	<0.60	<0.46	<0.40	<0.41	<0.53	<0.36	<0.58	<0.43 [<0.46]	<0.35
4-Chloro-3-Methylphenol	<0.45	<0.44	<0.44	<0.44	<0.60	<0.46	<0.40	<0.41	<0.53	<0.36	<0.58	<0.43 [<0.46]	<0.35
4-Chloroaniline	<0.45	<0.44	<0.44	<0.44	<0.60	<0.46	<0.40	<0.41	<0.53	<0.36	<0.58	<0.43 [<0.46]	<0.35
4-Chlorobenzilate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	<0.45	<0.44	<0.44	<0.44	<0.60	<0.46	<0.40	<0.41	<0.53	<0.36	<0.58	<0.43 [<0.46]	<0.35
4-Methylphenol	<0.45	<0.44	<0.44	<0.44	<0.60	<0.46	<0.40	<0.41	<0.53	<0.36	<0.58	<0.43 [<0.46]	<0.35
4-Nitroaniline	<2.2	<2.1	<2.2	<2.1	<2.9	<2.3	<1.9	<2.0	<2.6	<1.7	<2.8	<2.1 [<2.2]	<0.35
4-Nitrophenol	<2.2	<2.1	<2.2	<2.1	<2.9	<2.3	<1.9	<2.0	<2.6	<1.7	<2.8	<2.1 [<2.2]	<0.70
4-Nitroquinoline-1-oxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	<0.45	<0.44	<0.44	<0.44	<0.60	<0.46	<0.40	<0.41	<0.53	<0.36	<0.58	<0.43 [<0.46]	<0.35
Acenaphthylene	<0.45	<0.44	<0.44	<0.44	<0.60	<0.46	<0.40	<0.41	<0.53	<0.36	<0.58	<0.43 [<0.46]	<0.35
Acetophenone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	<0.45	0.11	<0.44	<0.44	<0.60	<0.46	<0.40	<0.41	<0.53	<0.36	<0.58	<0.43 [<0.46]	<0.35
Aramite	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	<0.45	0.55	<0.44	<0.44	0.079	<0.46	0.096	<0.41	<0.53	0.04	<0.58	<0.43 [<0.46]	<0.35
Benzo(a)pyrene	<0.45	0.69	<0.44	<0.44	<0.60	<0.46	0.13	0.049	<0.53	<0.36	<0.58	<0.43 [<0.46]	<0.35
Benzo(b)fluoranthene	<0.45	1.1	0.053	<0.44	0.099	<0.46	0.17	0.066	<0.53	0.047	<0.58	<0.43 [<0.46]	<0.35
Benzo(g,h,i)perylene	<0.45	0.4	<0.44	<0.44	<0.60	<0.46	0.079	<0.41	<0.53	<0.36	<0.58	<0.43 [<0.46]	<0.35
Benzo(k)fluoranthene	<0.45	0.37	<0.44	<0.44	<0.60	<0.46	0.064	<0.41	<0.53	<0.36	<0.58	<0.43 [<0.46]	<0.35
Benzoic Acid	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	<0.45	<0.44	<0.44	<0.44	<0.60	<0.46	<0.40	<0.41	<0.53	<0.36	<0.58	<0.43 [<0.46]	<0.35
bis(2-Chloroethyl)ether	<0.45	<0.44	<0.44	<0.44	<0.60	<0.46	<0.40	<0.41	<0.53	<0.36	<0.58	<0.43 [<0.46]	<0.35
bis(2-Chloroisopropyl)ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE I-2

SUMMARY OF SEMIVOLATILE ORGANIC COMPOUNDS SOIL ANALYTICAL RESULTS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	LNAPL Assessment Area
Location ID	SB-392	SB-393	SB-394	SB-395	SB-396	SB-397	SB-398	SB-399	SB-400	SB-406	SB-412	SB-418	SB-01A
Sample Depth (ft bgs):	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	1 - 3
Date Collected:	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/23/01
Semivolatile Organics													
bis(2-Ethylhexyl)phthalate	<0.45	<0.44	<0.44	<0.44	0.16	<0.46	<0.40	<0.41	<0.53	<0.36	<0.58	<0.43 [<0.46]	<0.35
Butylbenzylphthalate	<0.45	<0.44	<0.44	<0.44	<0.60	<0.46	<0.40	<0.41	<0.53	<0.36	<0.58	<0.43 [<0.46]	<0.35
Caprolactam	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	<0.45	0.079	<0.44	<0.44	0.22	<0.46	<0.40	<0.41	<0.53	<0.36	<0.58	<0.43 [<0.46]	<0.35
Chrysene	<0.45	0.76	<0.44	<0.44	0.12	<0.46	0.11	<0.41	<0.53	0.063	<0.58	<0.43 [<0.46]	<0.35
Diallate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	<0.45	0.11	<0.44	<0.44	<0.60	<0.46	<0.40	<0.41	<0.53	<0.36	<0.58	<0.43 [<0.46]	<0.35
Dibenzofuran	<0.45	<0.44	<0.44	<0.44	0.23	0.061	<0.40	<0.41	<0.53	0.13	<0.58	<0.43 [<0.46]	<0.35
Diethylphthalate	<0.45	<0.44	<0.44	<0.44	<0.60	<0.46	<0.40	<0.70	<0.53	<0.36	<0.58	<0.43 [<0.46]	<0.35
Dimethylphthalate	<0.45	<0.44	<0.44	<0.44	<0.60	<0.46	<0.40	<0.41	<0.53	<0.36	<0.58	<0.43 [<0.46]	<0.35
Di-n-Butylphthalate	<0.45	<0.44	<0.44	<0.44	<0.60	<0.46	<0.40	<0.41	<0.53	<0.36	<0.58	<0.43 [<0.46]	<0.35
Di-n-Octylphthalate	<0.45	<0.44	<0.44	<0.44	<0.60	<0.46	<0.40	<0.41	<0.53	<0.36	<0.58	<0.43 [<0.46]	<0.35
Diphenylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	0.064	1.5	0.059	<0.44	0.16	<0.46	0.18	0.085	<0.53	0.085	<0.58	<0.43 [<0.46]	<0.35
Fluorene	<0.45	<0.44	<0.44	<0.44	0.074	<0.46	<0.40	<0.41	<0.53	<0.36	<0.58	<0.43 [<0.46]	<0.35
Hexachlorobenzene	<0.45	<0.44	<0.44	<0.44	<0.60	<0.46	<0.40	<0.41	<0.53	<0.36	<0.58	<0.43 [<0.46]	<0.35
Hexachlorobutadiene	<0.45	<0.44	<0.44	<0.44	<0.60	<0.46	<0.40	<0.41	<0.53	<0.36	<0.58	<0.43 [<0.46]	<0.35
Hexachlorocyclopentadiene	<2.2	<2.1	<2.2	<2.1	<2.9	<2.3	<1.9	<2.0	<2.6	<1.7	<2.8	<2.1 [<2.2]	<0.35
Hexachloroethane	<0.45	<0.44	<0.44	<0.44	<0.60	<0.46	<0.40	<0.41	<0.53	<0.36	<0.58	<0.43 [<0.46]	<0.35
Hexachlorophene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	<0.45	0.42	<0.44	<0.44	<0.60	<0.46	0.081	<0.41	<0.53	<0.36	<0.58	<0.43 [<0.46]	<0.35
Isophorone	<0.45	<0.44	<0.44	<0.44	<0.60	<0.46	<0.40	<0.41	<0.53	<0.36	<0.58	<0.43 [<0.46]	<0.35
Isosafrole	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	<0.45	<0.44	<0.44	<0.44	0.88	0.19	<0.40	<0.41	<0.53	0.47	0.16	<0.43 [<0.46]	0.045
Nitrobenzene	<0.45	<0.44	<0.44	<0.44	<0.60	<0.46	<0.40	<0.41	<0.53	<0.36	<0.58	<0.43 [<0.46]	<0.35
N-Nitrosodiethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	<0.45	<0.44	<0.44	<0.44	<0.60	<0.46	<0.40	<0.41	<0.53	<0.36	<0.58	<0.43 [<0.46]	<0.35
N-Nitrosodiphenylamine	<0.45	<0.44	<0.44	<0.44	<0.60	<0.46	<0.40	<0.41	<0.53	<0.36	<0.58	<0.43 [<0.46]	<0.35
N-Nitrosomethylethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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SUMMARY OF SEMIVOLATILE ORGANIC COMPOUNDS SOIL ANALYTICAL RESULTS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	LNAPL Assessment Area
Location ID	SB-392	SB-393	SB-394	SB-395	SB-396	SB-397	SB-398	SB-399	SB-400	SB-406	SB-412	SB-418	SB-01A
Sample Depth (ft bgs):	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	1 - 3
Date Collected:	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/23/01
Semivolatile Organics													
o-Toluidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	<0.45	<0.44	<0.44	<0.44	<0.60	<0.46	<0.40	<0.41	<0.53	<0.36	<0.58	<0.43 [<0.46]	<0.35
Phenacetin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	<0.45	0.55	<0.44	<0.44	0.64	0.19	0.093	<0.41	<0.53	0.36	0.12	<0.43 [<0.46]	0.05
Phenol	<0.45	<0.44	<0.44	<0.44	1.6	<0.46	<0.40	<0.41	<0.53	0.14	<0.58	<0.43 [<0.46]	<0.35
Pronamide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	<0.45	1.2	<0.44	<0.44	0.15	<0.46	0.14	<0.41	<0.53	0.079	<0.58	<0.43 [<0.46]	<0.35
Pyridine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	<0.45	<0.44	<0.44	<0.44	0.077	<0.46	<0.40	<0.41	<0.53	0.04	<0.58	<0.43 [<0.46]	<0.35

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SUMMARY OF SEMIVOLATILE ORGANIC COMPOUNDS SOIL ANALYTICAL RESULTS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area
Location ID	SB-01A	SB-325	SB-362	SB-362	SB-362	SB-363	SB-363	SB-363	US-1	US-2	US-3	US-4
Sample Depth (ft bgs):	5 - 7	8 - 10	0 - 2	4 - 6	8 - 10	0 - 2	4 - 6	8 - 10	0 - 1	0 - 1	0 - 1	0 - 1
Date Collected:	08/23/01	06/14/95	09/28/95	09/28/95	09/28/95	09/28/95	09/28/95	09/28/95	06/12/95	06/12/95	06/12/95	06/12/95
Semivolatile Organics												
1,2,3,4-Tetrachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,5-Tetrachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4,5-Tetrachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	<0.35	<16	<0.77	<0.72	<0.21	<1.8	<1.8	<2.0	<0.83	<0.44	<0.17	<0.17
1,2-Dichlorobenzene	<0.35	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dinitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	<0.35	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	<0.35	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	<0.35	<16	<0.77	<0.72	<0.21	<1.8	<1.8	<2.0	<0.83	<0.44	<0.17	<0.17
2,3,4,6-Tetrachlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,5,6-Tetrachlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	<0.35	<16	<0.77	<0.72	<0.21	<1.8	<1.8	<2.0	R	R	R	<0.17
2,4,6-Trichlorophenol	<0.35	<16	<0.77	<0.72	<0.21	<1.8	<1.8	<2.0	R	R	R	<0.17
2,4-Diaminotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	<0.35	<16	<0.77	<0.72	<0.21	<1.8	<1.8	<2.0	R	<0.44	R	<0.17
2,4-Dimethylphenol	<0.35	<16	<0.77	<0.72	<0.21	<1.8	<1.8	<2.0	R	R	R	<0.17
2,4-Dinitrophenol	<0.71	<79	<3.8	<3.5	<1.0	<8.9	<8.8	<9.8	R	R	R	<0.84
2,4-Dinitrotoluene	<0.35	<16	<0.77	<0.72	<0.21	<1.8	<1.8	<2.0	<0.83	<0.44	<0.17	<0.17
2,6-Dichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	<0.35	<16	<0.77	<0.72	<0.21	<1.8	<1.8	<2.0	<0.83	<0.44	<0.17	<0.17
2-Acetylaminofluorene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	<0.35	<16	<0.77	<0.72	<0.21	<1.8	<1.8	<2.0	<0.83	<0.44	<0.17	<0.17
2-Chlorophenol	<0.35	<16	<0.77	<0.72	<0.21	<1.8	<1.8	<2.0	R	R	R	<0.17
2-Methylnaphthalene	0.15	<16	<0.77	<0.72	0.1	<1.8	<1.8	0.35	0.12	0.082	0.16	0.1
2-Methylphenol	<0.35	<16	<0.77	<0.72	<0.21	<1.8	<1.8	<2.0	R	R	R	<0.17
2-Naphthylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	<0.35	<79	<3.8	<3.5	<1.0	<8.9	<8.8	<9.8	<4.0	<2.2	<0.84	<0.84
2-Nitrophenol	<0.35	<16	<0.77	<0.72	<0.21	<1.8	<1.8	<2.0	R	R	R	<0.17
2-Picoline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	<0.35	<32	R	<1.4	<0.41	<3.7	<3.6	<4.0	<1.7	<0.89	<0.35	<0.35
3,3'-Dimethylbenzidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE I-2

SUMMARY OF SEMIVOLATILE ORGANIC COMPOUNDS SOIL ANALYTICAL RESULTS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area
Location ID	SB-01A	SB-325	SB-362	SB-362	SB-362	SB-363	SB-363	SB-363	US-1	US-2	US-3	US-4
Sample Depth (ft bgs):	5 - 7	8 - 10	0 - 2	4 - 6	8 - 10	0 - 2	4 - 6	8 - 10	0 - 1	0 - 1	0 - 1	0 - 1
Date Collected:	08/23/01	06/14/95	09/28/95	09/28/95	09/28/95	09/28/95	09/28/95	09/28/95	06/12/95	06/12/95	06/12/95	06/12/95
Semivolatile Organics												
3-Methylcholanthrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	<0.35	<79	<3.8	<3.5	<1.0	<8.9	<8.8	<9.8	<4.0	<2.2	<0.84	<0.84
4,4'-Methylene-bis(2-chloroaniline)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	<0.71	<79	<3.8	<3.5	<1.0	<8.9	<8.8	<9.8	R	R	R	<0.84
4-Aminobiphenyl	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	<0.35	<16	<0.77	<0.72	<0.21	<1.8	<1.8	<2.0	<0.83	<0.44	<0.17	<0.17
4-Chloro-3-Methylphenol	<0.35	<16	<0.77	<0.72	<0.21	<1.8	<1.8	<2.0	R	R	R	<0.17
4-Chloroaniline	<0.35	<16	<0.77	<0.72	<0.21	<1.8	<1.8	<2.0	<0.83	<0.44	<0.17	<0.17
4-Chlorobenzilate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	<0.35	<16	<0.77	<0.72	<0.21	<1.8	<1.8	<2.0	<0.83	<0.44	<0.17	<0.17
4-Methylphenol	<0.35	<16	<0.77	<0.72	<0.21	<1.8	<1.8	<2.0	<0.83	R	R	<0.17
4-Nitroaniline	<0.35	<79	<3.8	<3.5	<1.0	<8.9	<8.8	<9.8	<4.0	<2.2	<0.84	<0.84
4-Nitrophenol	<0.71	<79	<3.8	<3.5	<1.0	<8.9	<8.8	<9.8	R	R	R	<0.84
4-Nitroquinoline-1-oxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	<0.35	<16	<0.77	<0.72	<0.21	<1.8	<1.8	<2.0	0.13	<0.44	0.078	<0.17
Acenaphthylene	<0.35	<16	<0.77	<0.72	<0.21	<1.8	<1.8	0.33	<0.83	<0.44	<0.17	<0.17
Acetophenone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	<0.35	<16	<0.77	<0.72	<0.21	<1.8	<1.8	<2.0	0.11	0.045	0.14	<0.17
Aramite	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	<0.35	<16	<0.77	0.18	<0.21	<1.8	<1.8	<2.0	0.4	0.22	0.24	<0.17
Benzo(a)pyrene	<0.35	<16	<0.77	0.17	<0.21	<1.8	<1.8	<2.0	<0.83	<0.44	0.17	<0.17
Benzo(b)fluoranthene	<0.35	<16	<0.77	0.22	<0.21	<1.8	<1.8	<2.0	0.56	<0.44	0.33	<0.17
Benzo(g,h,i)perylene	<0.35	<16	<0.77	0.13	<0.21	<1.8	<1.8	<2.0	<0.83	<0.44	0.094	<0.17
Benzo(k)fluoranthene	<0.35	<16	<0.77	0.11	<0.21	<1.8	<1.8	<2.0	<0.83	<0.44	<0.17	<0.17
Benzoic Acid	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	<0.35	<16	<0.77	<0.72	<0.21	<1.8	<1.8	<2.0	<0.83	<0.44	<0.17	<0.17
bis(2-Chloroethyl)ether	<0.35	<16	<0.77	<0.72	<0.21	<1.8	<1.8	<2.0	<0.83	<0.44	<0.17	<0.17
bis(2-Chloroisopropyl)ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE I-2

SUMMARY OF SEMIVOLATILE ORGANIC COMPOUNDS SOIL ANALYTICAL RESULTS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area
Location ID	SB-01A	SB-325	SB-362	SB-362	SB-362	SB-363	SB-363	SB-363	US-1	US-2	US-3	US-4
Sample Depth (ft bgs):	5 - 7	8 - 10	0 - 2	4 - 6	8 - 10	0 - 2	4 - 6	8 - 10	0 - 1	0 - 1	0 - 1	0 - 1
Date Collected:	08/23/01	06/14/95	09/28/95	09/28/95	09/28/95	09/28/95	09/28/95	09/28/95	06/12/95	06/12/95	06/12/95	06/12/95
Semivolatile Organics												
bis(2-Ethylhexyl)phthalate	<0.35	<16	R	<0.72	<0.21	<1.8	<1.8	<2.0	<0.83	<0.44	0.1	<0.17
Butylbenzylphthalate	<0.35	<16	R	<0.72	<0.21	<1.8	<1.8	<2.0	<0.83	<0.44	<0.17	<0.17
Caprolactam	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	<0.35	<16	<0.77	<0.72	<0.21	<1.8	<1.8	<2.0	<0.83	<0.44	0.076	<0.17
Chrysene	<0.35	<16	R	0.27	<0.21	<1.8	<1.8	<2.0	0.44	0.27	0.23	<0.17
Diallate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	<0.35	<16	<0.77	<0.72	<0.21	<1.8	<1.8	<2.0	<0.83	<0.44	<0.17	<0.17
Dibenzofuran	<0.35	<16	<0.77	<0.72	<0.21	<1.8	<1.8	<2.0	0.15	<0.44	0.096	0.019
Diethylphthalate	<0.35	<16	<0.77	<0.72	<0.21	<1.8	<1.8	<2.0	<0.83	<0.44	<0.17	<0.17
Dimethylphthalate	<0.35	<16	<0.77	<0.72	<0.21	<1.8	<1.8	<2.0	<0.83	<0.44	<0.17	<0.17
Di-n-Butylphthalate	<0.35	<16	<0.77	<0.72	<0.21	<1.8	<1.8	<2.0	<0.83	<0.44	<0.17	<0.17
Di-n-Octylphthalate	<0.35	<16	<0.77	<0.72	<0.21	<1.8	<1.8	<2.0	<0.83	<0.44	<0.17	<0.17
Diphenylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	<0.35	<16	<0.77	0.42	0.027	0.51	<1.8	<2.0	1.1	0.4	0.58	0.065
Fluorene	<0.35	<16	<0.77	<0.72	<0.21	<1.8	<1.8	<2.0	0.18	<0.44	0.097	<0.17
Hexachlorobenzene	<0.35	<16	<0.77	<0.72	<0.21	<1.8	<1.8	<2.0	<0.83	<0.44	<0.17	<0.17
Hexachlorobutadiene	<0.35	<16	<0.77	<0.72	<0.21	<1.8	<1.8	<2.0	<0.83	<0.44	<0.17	<0.17
Hexachlorocyclopentadiene	<0.35	<16	<0.77	<0.72	<0.21	<1.8	<1.8	<2.0	<0.83	<0.44	<0.17	<0.17
Hexachloroethane	<0.35	<16	<0.77	<0.72	<0.21	<1.8	<1.8	<2.0	<0.83	<0.44	<0.17	<0.17
Hexachlorophene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	<0.35	<16	<0.77	0.098	<0.21	<1.8	<1.8	<2.0	<0.83	<0.44	0.074	<0.17
Isophorone	<0.35	<16	<0.77	<0.72	<0.21	<1.8	<1.8	<2.0	<0.83	<0.44	<0.17	<0.17
Isosafrole	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	0.11	<16	<0.77	0.39	0.39	<1.8	<1.8	0.4	<0.83	<0.44	0.11	0.075
Nitrobenzene	<0.35	<16	<0.77	<0.72	<0.21	<1.8	<1.8	<2.0	<0.83	<0.44	<0.17	<0.17
N-Nitrosodiethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	<0.35	<16	<0.77	<0.72	<0.21	<1.8	<1.8	<2.0	<0.83	<0.44	<0.17	<0.17
N-Nitrosodiphenylamine	<0.35	<16	<0.77	<0.72	<0.21	<1.8	<1.8	<2.0	<0.83	<0.44	<0.17	<0.17
N-Nitrosomethylethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE I-2

SUMMARY OF SEMIVOLATILE ORGANIC COMPOUNDS SOIL ANALYTICAL RESULTS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area
Location ID	SB-01A	SB-325	SB-362	SB-362	SB-362	SB-363	SB-363	SB-363	US-1	US-2	US-3	US-4
Sample Depth (ft bgs):	5 - 7	8 - 10	0 - 2	4 - 6	8 - 10	0 - 2	4 - 6	8 - 10	0 - 1	0 - 1	0 - 1	0 - 1
Date Collected:	08/23/01	06/14/95	09/28/95	09/28/95	09/28/95	09/28/95	09/28/95	09/28/95	06/12/95	06/12/95	06/12/95	06/12/95
Semivolatile Organics												
o-Toluidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	<0.35	<79	<3.8	<3.5	<1.0	<8.9	<8.8	<9.8	R	R	R	<0.84
Phenacetin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	0.095	<16	<0.77	0.26	0.031	0.57	0.51	0.68	1.2	0.25	0.69	0.076
Phenol	<0.35	<16	<0.77	<0.72	<0.21	<1.8	<1.8	<2.0	R	R	R	0.078
Pronamide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	<0.35	<16	R	0.33	<0.21	0.44	0.55	<2.0	1.1	0.5	0.56	0.084
Pyridine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	<0.35	<16	<0.77	<0.72	<0.21	<1.8	<1.8	<2.0	R	R	R	<0.17

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TABLE I-2

SUMMARY OF SEMIVOLATILE ORGANIC COMPOUNDS SOIL ANALYTICAL RESULTS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	Parking Lot Area/Buffer Basin	Parking Lot Area/Buffer Basin	Parking Lot Area/Buffer Basin	Parking Lot Area/Buffer Basin	Parking Lot Area/Buffer Basin	Previous Metal Feedstock	Previous Metal Feedstock	Previous Metal Feedstock	Previous Metal Feedstock
Location ID	US-6	US-7	US-8	BH9	BH9	BH10	BH10	SB-354	FS-1	FS-2	FS-3	FS-4
Sample Depth (ft bgs):	0 - 1	0 - 1	0 - 1	1 - 2	2 - 4	1 - 2	2 - 4	0 - 2	0 - 1	0 - 1	0 - 1	0 - 1
Date Collected:	06/12/95	06/12/95	06/12/95	03/06/07	03/06/07	03/06/07	03/06/07	06/28/95	06/12/95	06/12/95	06/12/95	06/12/95
Semivolatile Organics												
1,2,3,4-Tetrachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,5-Tetrachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4,5-Tetrachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	<0.34	<0.17	<0.17	NA	NA	NA	NA	<0.18	<0.71	<0.18	<0.18	<0.18
1,2-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dinitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	<0.34	<0.17	<0.17	<5.6	<0.31	<0.30	<0.28	<0.18	<0.71	<0.18	<0.18	<0.18
2,3,4,6-Tetrachlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,5,6-Tetrachlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	<0.34	<0.17	<0.17	<5.6	<0.31	<0.30	<0.28	<0.18	<0.71	<0.18	<0.18	<0.18
2,4,6-Trichlorophenol	<0.34	<0.17	<0.17	<5.6	<0.31	<0.30	<0.28	<0.18	<0.71	<0.18	<0.18	<0.18
2,4-Diaminotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	<0.34	<0.17	<0.17	<5.6	<0.31	<0.30	<0.28	<0.18	<0.71	<0.18	<0.18	<0.18
2,4-Dimethylphenol	<0.34	<0.17	<0.17	<5.6	<0.31	<0.30	<0.28	<0.18	<0.71	<0.18	<0.18	<0.18
2,4-Dinitrophenol	<1.7	<0.82	<0.81	<3.2	<0.17	<0.17	<0.16	<0.86	<3.4	<0.87	<0.90	<0.89
2,4-Dinitrotoluene	<0.34	<0.17	<0.17	<5.6	<0.31	<0.30	<0.28	<0.18	<0.71	<0.18	<0.18	<0.18
2,6-Dichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	<0.34	<0.17	<0.17	<5.6	<0.31	<0.30	<0.28	<0.18	<0.71	<0.18	<0.18	<0.18
2-Acetylaminofluorene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	<0.34	<0.17	<0.17	<5.6	<0.31	<0.30	<0.28	<0.18	<0.71	<0.18	<0.18	<0.18
2-Chlorophenol	<0.34	<0.17	<0.17	<5.6	<0.31	<0.30	<0.28	<0.18	<0.71	<0.18	<0.18	<0.18
2-Methylnaphthalene	0.26	0.16	0.48	0.4	0.23	0.046	0.23	0.039	0.26	0.14	0.24	0.3
2-Methylphenol	<0.34	<0.17	<0.17	<5.6	<0.31	<0.30	<0.28	<0.18	<0.71	<0.18	<0.18	<0.18
2-Naphthylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	<1.7	<0.82	<0.81	<4.3	<0.23	<0.22	<0.21	<0.86	<3.4	<0.87	<0.90	<0.89
2-Nitrophenol	<0.34	<0.17	<0.17	<5.6	<0.31	<0.30	<0.28	<0.18	<0.71	<0.18	<0.18	<0.18
2-Picoline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	<0.68	<0.34	<0.33	<34	<1.9	<1.8	<1.7	<0.35	<1.4	<0.36	<0.37	<0.37
3,3'-Dimethylbenzidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE I-2

SUMMARY OF SEMIVOLATILE ORGANIC COMPOUNDS SOIL ANALYTICAL RESULTS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	Parking Lot Area/Buffer Basin	Parking Lot Area/Buffer Basin	Parking Lot Area/Buffer Basin	Parking Lot Area/Buffer Basin	Parking Lot Area/Buffer Basin	Previous Metal Feedstock	Previous Metal Feedstock	Previous Metal Feedstock	Previous Metal Feedstock
Location ID	US-6	US-7	US-8	BH9	BH9	BH10	BH10	SB-354	FS-1	FS-2	FS-3	FS-4
Sample Depth (ft bgs):	0 - 1	0 - 1	0 - 1	1 - 2	2 - 4	1 - 2	2 - 4	0 - 2	0 - 1	0 - 1	0 - 1	0 - 1
Date Collected:	06/12/95	06/12/95	06/12/95	03/06/07	03/06/07	03/06/07	03/06/07	06/28/95	06/12/95	06/12/95	06/12/95	06/12/95
Semivolatile Organics												
3-Methylcholanthrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	<1.7	<0.82	<0.81	<4.3	<0.23	<0.22	<0.21	<0.86	<3.4	<0.87	<0.90	<0.89
4,4'-Methylene-bis(2-chloroaniline)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	<1.7	<0.82	<0.81	<3.2	<0.17	<0.17	<0.16	<0.86	<3.4	<0.87	<0.90	<0.89
4-Aminobiphenyl	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	<0.34	<0.17	<0.17	<5.6	<0.31	<0.30	<0.28	<0.18	<0.71	<0.18	<0.18	<0.18
4-Chloro-3-Methylphenol	<0.34	<0.17	<0.17	<5.6	<0.31	<0.30	<0.28	<0.18	<0.71	<0.18	<0.18	<0.18
4-Chloroaniline	0.048	<0.17	<0.17	<3.2	<0.17	<0.17	<0.16	<0.18	<0.71	<0.18	<0.18	<0.18
4-Chlorobenzilate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	<0.34	<0.17	<0.17	<5.6	<0.31	<0.30	<0.28	<0.18	<0.71	<0.18	<0.18	<0.18
4-Methylphenol	<0.34	<0.17	<0.17	<5.6	<0.31	<0.30	<0.28	<0.18	<0.71	<0.18	<0.18	<0.18
4-Nitroaniline	<1.7	<0.82	<0.81	<4.3	<0.23	<0.22	<0.21	<0.86	<3.4	<0.87	<0.90	<0.89
4-Nitrophenol	<1.7	<0.82	<0.81	<7.0	<0.38	<0.37	<0.35	<0.86	<3.4	<0.87	<0.90	<0.89
4-Nitroquinoline-1-oxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	<0.34	<0.17	0.02	3.3	0.021	<0.30	0.012	<0.18	<0.71	<0.18	<0.18	<0.18
Acenaphthylene	<0.34	<0.17	<0.17	<5.6	0.0089	<0.30	<0.28	<0.18	<0.71	<0.18	<0.18	<0.18
Acetophenone	NA	NA	NA	<5.6	<0.31	<0.30	<0.28	NA	NA	NA	NA	NA
Aniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	0.23	<0.17	0.019	8.5	0.046	0.0079	0.02	<0.18	<0.71	<0.18	<0.18	<0.18
Aramite	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	NA	NA	NA	<0.85	<0.046	<0.045	<0.042	NA	NA	NA	NA	NA
Benzaldehyde	NA	NA	NA	<5.6	<0.31	<0.30	<0.28	NA	NA	NA	NA	NA
Benzidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	0.13	<0.17	0.1	8.1	0.06	0.017	0.021	<0.18	<0.71	<0.18	0.033	0.028
Benzo(a)pyrene	<0.34	<0.17	0.06	6.6	0.1	<0.30	<0.28	<0.18	0.17	<0.18	<0.18	<0.18
Benzo(b)fluoranthene	<0.34	<0.17	0.16	6.7	0.057	0.022	0.012	<0.18	0.47	<0.18	<0.18	<0.18
Benzo(g,h,i)perylene	<0.34	<0.17	0.039	2.6	<0.31	<0.30	<0.28	<0.18	<0.71	<0.18	<0.18	<0.18
Benzo(k)fluoranthene	<0.34	<0.17	0.047	2.8	0.028	0.011	<0.28	<0.18	<0.71	<0.18	<0.18	<0.18
Benzoic Acid	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	NA	NA	NA	<5.6	0.062	<0.30	<0.28	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	<0.34	<0.17	<0.17	<5.6	<0.31	<0.30	<0.28	<0.18	<0.71	<0.18	<0.18	<0.18
bis(2-Chloroethyl)ether	<0.34	<0.17	<0.17	<1.7	0.011	<0.089	<0.084	<0.18	<0.71	<0.18	<0.18	<0.18
bis(2-Chloroisopropyl)ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE I-2

SUMMARY OF SEMIVOLATILE ORGANIC COMPOUNDS SOIL ANALYTICAL RESULTS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	Parking Lot Area/Buffer Basin	Parking Lot Area/Buffer Basin	Parking Lot Area/Buffer Basin	Parking Lot Area/Buffer Basin	Parking Lot Area/Buffer Basin	Previous Metal Feedstock	Previous Metal Feedstock	Previous Metal Feedstock	Previous Metal Feedstock
Location ID	US-6	US-7	US-8	BH9	BH9	BH10	BH10	SB-354	FS-1	FS-2	FS-3	FS-4
Sample Depth (ft bgs):	0 - 1	0 - 1	0 - 1	1 - 2	2 - 4	1 - 2	2 - 4	0 - 2	0 - 1	0 - 1	0 - 1	0 - 1
Date Collected:	06/12/95	06/12/95	06/12/95	03/06/07	03/06/07	03/06/07	03/06/07	06/28/95	06/12/95	06/12/95	06/12/95	06/12/95
Semivolatile Organics												
bis(2-Ethylhexyl)phthalate	<0.34	<0.17	0.075	<5.6	<0.31	<0.30	<0.28	0.089	<0.71	<0.18	0.48	<0.18
Butylbenzylphthalate	<0.34	<0.17	0.027	<5.6	<0.31	<0.30	<0.28	<0.18	<0.71	<0.18	<0.18	<0.18
Caprolactam	NA	NA	NA	<5.6	<0.31	<0.30	<0.28	NA	NA	NA	NA	NA
Carbazole	<0.34	<0.17	<0.17	3.6	<0.31	<0.30	<0.28	<0.18	<0.71	<0.18	<0.18	<0.18
Chrysene	0.16	<0.17	0.16	7.6	0.14	0.038	0.031	0.046	0.26	<0.18	0.061	0.039
Diallate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	<0.34	<0.17	<0.17	0.055	<0.31	<0.30	<0.28	<0.18	<0.71	<0.18	<0.18	<0.18
Dibenzofuran	0.055	0.035	0.1	2.4	0.069	<0.30	0.022	<0.18	<0.71	<0.18	0.044	0.046
Diethylphthalate	<0.34	<0.17	<0.17	<5.6	<0.31	<0.30	<0.28	<0.18	<0.71	<0.18	<0.18	<0.18
Dimethylphthalate	<0.34	<0.17	<0.17	<5.6	<0.31	<0.30	<0.28	<0.18	<0.71	<0.18	<0.18	<0.18
Di-n-Butylphthalate	<0.34	<0.17	<0.17	<5.6	<0.31	<0.30	<0.28	2.7	<0.71	0.02	0.23	0.16
Di-n-Octylphthalate	<0.34	<0.17	<0.17	<5.6	<0.31	<0.30	<0.28	<0.18	<0.71	<0.18	<0.18	<0.18
Diphenylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	0.18	0.05	0.23	21	0.14	0.038	0.082	<0.18	0.21	<0.18	0.067	0.04
Fluorene	<0.34	<0.17	0.017	4	0.037	<0.30	0.024	<0.18	<0.71	<0.18	<0.18	<0.18
Hexachlorobenzene	<0.34	<0.17	<0.17	<5.6	<0.31	<0.30	<0.28	<0.18	<0.71	<0.18	<0.18	<0.18
Hexachlorobutadiene	<0.34	<0.17	<0.17	<0.85	<0.046	<0.045	<0.042	<0.18	<0.71	<0.18	<0.18	<0.18
Hexachlorocyclopentadiene	<0.34	<0.17	<0.17	<5.6	<0.31	<0.30	<0.28	<0.18	<0.71	<0.18	<0.18	<0.18
Hexachloroethane	<0.34	<0.17	<0.17	<5.6	<0.31	<0.30	<0.28	<0.18	<0.71	<0.18	<0.18	<0.18
Hexachlorophene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	<0.34	<0.17	0.028	2.9	<0.31	<0.30	<0.28	<0.18	<0.71	<0.18	<0.18	<0.18
Isophorone	<0.34	<0.17	<0.17	<5.6	<0.31	<0.30	<0.28	<0.18	0.39	0.65	0.68	0.093
Isosafrole	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	0.19	0.11	0.35	<5.6	0.17	0.035	0.17	0.039	0.2	0.093	0.15	0.17
Nitrobenzene	<0.34	<0.17	<0.17	<5.6	<0.31	<0.30	<0.28	<0.18	<0.71	<0.18	<0.18	<0.18
N-Nitrosodiethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	<0.34	<0.17	<0.17	<5.6	<0.31	<0.30	<0.28	<0.18	<0.71	<0.18	<0.18	<0.18
N-Nitrosodiphenylamine	<0.34	<0.17	<0.17	<5.6	<0.31	<0.30	<0.28	<0.18	<0.71	<0.18	<0.18	<0.18
N-Nitrosomethylethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE I-2

SUMMARY OF SEMIVOLATILE ORGANIC COMPOUNDS SOIL ANALYTICAL RESULTS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	Parking Lot Area/Buffer Basin	Parking Lot Area/Buffer Basin	Parking Lot Area/Buffer Basin	Parking Lot Area/Buffer Basin	Parking Lot Area/Buffer Basin	Previous Metal Feedstock	Previous Metal Feedstock	Previous Metal Feedstock	Previous Metal Feedstock
Location ID	US-6	US-7	US-8	BH9	BH9	BH10	BH10	SB-354	FS-1	FS-2	FS-3	FS-4
Sample Depth (ft bgs):	0 - 1	0 - 1	0 - 1	1 - 2	2 - 4	1 - 2	2 - 4	0 - 2	0 - 1	0 - 1	0 - 1	0 - 1
Date Collected:	06/12/95	06/12/95	06/12/95	03/06/07	03/06/07	03/06/07	03/06/07	06/28/95	06/12/95	06/12/95	06/12/95	06/12/95
Semivolatile Organics												
o-Toluidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	<1.7	<0.82	<0.81	<3.2	<0.17	<0.17	<0.16	<0.86	<3.4	<0.87	<0.90	<0.89
Phenacetin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	0.22	0.098	0.27	23	0.32	0.072	0.13	0.05	0.17	0.087	0.13	0.11
Phenol	0.045	0.025	0.044	<5.6	<0.31	<0.30	<0.28	<0.18	0.14	0.06	0.12	0.18
Pronamide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	0.31	0.078	0.25	17	0.15	0.033	0.056	<0.18	0.55	<0.18	0.088	0.047
Pyridine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	<0.34	<0.17	<0.17	<5.6	<0.31	<0.30	<0.28	<0.18	<0.71	<0.18	<0.18	<0.18

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TABLE I-2

SUMMARY OF SEMIVOLATILE ORGANIC COMPOUNDS SOIL ANALYTICAL RESULTS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	Previous Metal Feedstock FS-5 0 - 1 06/12/95	Previous Metal Feedstock FS-6 0 - 1 06/12/95	Previous Metal Feedstock FS-7 0 - 1 06/12/95	Previous Metal Feedstock FS-8 0 - 1 06/12/95	Previous Metal Feedstock SB-304 0 - 1 02/08/95	Previous Metal Feedstock SB-304 2 - 4 02/08/95	Previous Metal Feedstock SB-304 6 - 8 02/08/95	Previous Metal Feedstock SB-305 0 - 1 02/08/95	Previous Metal Feedstock SB-305 2 - 4 02/08/95	Previous Metal Feedstock SB-305 6 - 8 02/08/95
Semivolatile Organics										
1,2,3,4-Tetrachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,5-Tetrachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4,5-Tetrachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	<0.18	<0.17 [<0.17]	<0.18	<0.17	<0.18	<0.18	<0.21	<0.19	<0.18	<0.18
1,2-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dinitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	<0.18	<0.17 [<0.17]	<0.18	<0.17	<0.18	<0.18	<0.21	<0.19	<0.18	<0.18
2,3,4,6-Tetrachlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,5,6-Tetrachlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	<0.18	<0.17 [<0.17]	<0.18	<0.17	<0.18	<0.18	<0.21	<0.19	<0.18	<0.18
2,4,6-Trichlorophenol	<0.18	<0.17 [<0.17]	<0.18	<0.17	<0.18	<0.18	<0.21	<0.19	<0.18	<0.18
2,4-Diaminotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	<0.18	<0.17 [<0.17]	<0.18	<0.17	<0.18	<0.18	<0.21	<0.19	<0.18	<0.18
2,4-Dimethylphenol	<0.18	<0.17 [<0.17]	<0.18	<0.17	<0.18	<0.18	<0.21	<0.19	<0.18	<0.18
2,4-Dinitrophenol	<0.86	<0.82 [<0.82]	<0.86	<0.84	<0.86	<0.85	<1.0	<0.90	<0.86	<0.89
2,4-Dinitrotoluene	<0.18	<0.17 [<0.17]	<0.18	<0.17	<0.18	<0.18	<0.21	<0.19	<0.18	<0.18
2,6-Dichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	<0.18	<0.17 [<0.17]	<0.18	<0.17	<0.18	<0.18	<0.21	<0.19	<0.18	<0.18
2-Acetylaminofluorene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	<0.18	<0.17 [<0.17]	<0.18	<0.17	<0.18	<0.18	<0.21	<0.19	<0.18	<0.18
2-Chlorophenol	<0.18	<0.17 [<0.17]	<0.18	<0.17	<0.18	<0.18	<0.21	<0.19	<0.18	<0.18
2-Methylnaphthalene	0.13	0.11 [0.20]	0.24	0.22	0.07	<0.18	0.058	0.12	0.14	0.84
2-Methylphenol	<0.18	<0.17 [<0.17]	<0.18	<0.17	<0.18	<0.18	<0.21	<0.19	<0.18	<0.18
2-Naphthylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	<0.86	<0.82 [<0.82]	<0.86	<0.84	<0.86	<0.85	<1.0	<0.90	<0.86	<0.89
2-Nitrophenol	<0.18	<0.17 [<0.17]	<0.18	<0.17	<0.18	<0.18	<0.21	<0.19	<0.18	<0.18
2-Picoline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	<0.36	<0.34 [<0.34]	<0.35	<0.35	<0.36	<0.35	<0.41	<0.37	<0.35	<0.37
3,3'-Dimethylbenzidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE I-2

SUMMARY OF SEMIVOLATILE ORGANIC COMPOUNDS SOIL ANALYTICAL RESULTS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	Previous Metal Feedstock FS-5 0 - 1 06/12/95	Previous Metal Feedstock FS-6 0 - 1 06/12/95	Previous Metal Feedstock FS-7 0 - 1 06/12/95	Previous Metal Feedstock FS-8 0 - 1 06/12/95	Previous Metal Feedstock SB-304 0 - 1 02/08/95	Previous Metal Feedstock SB-304 2 - 4 02/08/95	Previous Metal Feedstock SB-304 6 - 8 02/08/95	Previous Metal Feedstock SB-305 0 - 1 02/08/95	Previous Metal Feedstock SB-305 2 - 4 02/08/95	Previous Metal Feedstock SB-305 6 - 8 02/08/95
Semivolatile Organics										
3-Methylcholanthrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	<0.86	<0.82 [<0.82]	<0.86	<0.84	<0.86	<0.85	<1.0	<0.90	<0.86	<0.89
4,4'-Methylene-bis(2-chloroaniline)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	<0.86	<0.82 [<0.82]	<0.86	<0.84	<0.86	<0.85	<1.0	<0.90	<0.86	<0.89
4-Aminobiphenyl	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	<0.18	<0.17 [<0.17]	<0.18	<0.17	<0.18	<0.18	<0.21	<0.19	<0.18	<0.18
4-Chloro-3-Methylphenol	<0.18	<0.17 [<0.17]	<0.18	<0.17	<0.18	<0.18	<0.21	<0.19	<0.18	<0.18
4-Chloroaniline	<0.18	<0.17 [<0.17]	0.053	<0.17	<0.18	<0.35	<0.21	<0.19	<0.18	<0.18
4-Chlorobenzilate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	<0.18	<0.17 [<0.17]	<0.18	<0.17	<0.18	<0.18	<0.21	<0.19	<0.18	<0.18
4-Methylphenol	<0.18	<0.17 [<0.17]	<0.18	<0.17	<0.18	<0.18	<0.21	<0.19	<0.18	0.042
4-Nitroaniline	<0.86	<0.82 [<0.82]	<0.86	<0.84	<0.86	<0.85	<1.0	<0.90	<0.86	<0.89
4-Nitrophenol	<0.86	<0.82 [<0.82]	<0.86	<0.84	<0.86	<0.85	<1.0	<0.90	<0.86	<0.89
4-Nitroquinoline-1-oxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	<0.18	<0.17 [<0.17]	<0.18	<0.17	<0.18	<0.18	<0.21	<0.19	<0.18	0.052
Acenaphthylene	<0.18	<0.17 [<0.17]	<0.18	<0.17	<0.18	<0.18	<0.21	<0.19	<0.18	<0.18
Acetophenone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	<0.18	<0.17 [<0.17]	0.11	<0.17	<0.18	<0.18	<0.21	<0.19	<0.18	0.041
Aramite	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	<0.18	<0.17 [<0.17]	<0.18	<0.17	0.04	0.053	<0.21	<0.19	<0.18	0.038
Benzo(a)pyrene	<0.18	<0.17 [<0.17]	<0.18	<0.17	0.032	0.055	<0.21	<0.19	<0.18	<0.18
Benzo(b)fluoranthene	<0.18	<0.17 [<0.17]	<0.18	<0.17	0.056	0.088	<0.21	<0.19	<0.18	0.042
Benzo(g,h,i)perylene	<0.18	<0.17 [<0.17]	<0.18	<0.17	0.022	0.031	<0.21	<0.19	<0.18	<0.18
Benzo(k)fluoranthene	<0.18	<0.17 [<0.17]	<0.18	<0.17	0.02	<0.18	<0.21	<0.19	<0.18	<0.18
Benzoic Acid	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	<0.18	<0.17 [<0.17]	<0.18	<0.17	<0.18	<0.18	<0.21	<0.19	<0.18	<0.18
bis(2-Chloroethyl)ether	<0.18	<0.17 [<0.17]	<0.18	<0.17	<0.18	<0.18	<0.21	<0.19	<0.18	<0.18
bis(2-Chloroisopropyl)ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE I-2

SUMMARY OF SEMIVOLATILE ORGANIC COMPOUNDS SOIL ANALYTICAL RESULTS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	Previous Metal Feedstock FS-5 0 - 1 06/12/95	Previous Metal Feedstock FS-6 0 - 1 06/12/95	Previous Metal Feedstock FS-7 0 - 1 06/12/95	Previous Metal Feedstock FS-8 0 - 1 06/12/95	Previous Metal Feedstock SB-304 0 - 1 02/08/95	Previous Metal Feedstock SB-304 2 - 4 02/08/95	Previous Metal Feedstock SB-304 6 - 8 02/08/95	Previous Metal Feedstock SB-305 0 - 1 02/08/95	Previous Metal Feedstock SB-305 2 - 4 02/08/95	Previous Metal Feedstock SB-305 6 - 8 02/08/95
Semivolatile Organics										
bis(2-Ethylhexyl)phthalate	<0.18	<0.17 [<0.17]	<0.18	<0.17	<0.18	4.3	<0.21	<0.19	<0.18	<0.18
Butylbenzylphthalate	<0.18	<0.17 [<0.17]	<0.18	<0.17	<0.18	<0.18	<0.21	<0.19	<0.18	<0.18
Caprolactam	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	<0.18	<0.17 [<0.17]	<0.18	<0.17	<0.18	<0.18	<0.21	<0.19	<0.18	<0.18
Chrysene	<0.18	<0.17 [<0.17]	<0.18	<0.17	0.064	0.077	<0.21	<0.19	0.026	0.068
Diallate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	<0.18	<0.17 [<0.17]	<0.18	<0.17	<0.18	<0.18	<0.21	<0.19	<0.18	<0.18
Dibenzofuran	<0.18	<0.17 [0.046]	0.047	0.04	0.019	<0.18	<0.21	0.027	<0.18	0.058
Diethylphthalate	<0.18	<0.17 [<0.17]	<0.18	<0.17	<0.18	<0.18	<0.21	<0.19	<0.18	<0.18
Dimethylphthalate	<0.18	<0.17 [<0.17]	<0.18	<0.17	<0.18	<0.18	<0.21	<0.19	<0.18	<0.18
Di-n-Butylphthalate	<0.18	<0.17 [<0.17]	<0.18	0.021	<0.18	<0.18	<0.21	<0.18	<0.18	<0.18
Di-n-Octylphthalate	<0.18	<0.17 [<0.17]	<0.18	<0.17	<0.18	<0.18	<0.21	<0.19	<0.18	<0.18
Diphenylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	<0.18	<0.17 [<0.17]	<0.18	<0.17	0.074	0.095	<0.21	<0.19	0.032	0.072
Fluorene	<0.18	<0.17 [<0.17]	<0.18	<0.17	<0.18	<0.18	<0.21	<0.19	<0.18	0.11
Hexachlorobenzene	<0.18	<0.17 [<0.17]	<0.18	<0.17	<0.18	0.11	<0.21	<0.19	<0.18	<0.18
Hexachlorobutadiene	<0.18	<0.17 [<0.17]	<0.18	<0.17	<0.18	<0.18	<0.21	<0.19	<0.18	<0.18
Hexachlorocyclopentadiene	<0.18	<0.17 [<0.17]	<0.18	<0.17	<0.18	<0.18	<0.21	<0.19	<0.18	<0.18
Hexachloroethane	<0.18	<0.17 [<0.17]	<0.18	<0.17	<0.18	<0.18	<0.21	<0.19	<0.18	<0.18
Hexachlorophene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	<0.18	<0.17 [<0.17]	<0.18	<0.17	0.021	0.028	<0.21	<0.19	<0.18	<0.18
Isophorone	<0.18	<0.17 [<0.17]	0.25	0.96	<0.18	<0.18	<0.21	0.21	0.38	<0.18
Isosafrole	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	0.097	0.086 [0.14]	0.17	0.16	0.048	<0.18	0.042	0.097	0.085	0.63
Nitrobenzene	<0.18	<0.17 [<0.17]	<0.18	<0.17	<0.18	<0.18	<0.21	<0.19	<0.18	<0.18
N-Nitrosodiethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	<0.18	<0.17 [<0.17]	<0.18	<0.17	<0.18	<0.18	<0.21	<0.19	<0.18	<0.18
N-Nitrosodiphenylamine	<0.18	<0.17 [<0.17]	<0.18	<0.17	<0.18	<0.18	<0.21	<0.19	<0.18	<0.18
N-Nitrosomethylethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE I-2

SUMMARY OF SEMIVOLATILE ORGANIC COMPOUNDS SOIL ANALYTICAL RESULTS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	Previous Metal Feedstock FS-5 0 - 1 06/12/95	Previous Metal Feedstock FS-6 0 - 1 06/12/95	Previous Metal Feedstock FS-7 0 - 1 06/12/95	Previous Metal Feedstock FS-8 0 - 1 06/12/95	Previous Metal Feedstock SB-304 0 - 1 02/08/95	Previous Metal Feedstock SB-304 2 - 4 02/08/95	Previous Metal Feedstock SB-304 6 - 8 02/08/95	Previous Metal Feedstock SB-305 0 - 1 02/08/95	Previous Metal Feedstock SB-305 2 - 4 02/08/95	Previous Metal Feedstock SB-305 6 - 8 02/08/95
Semivolatile Organics										
o-Toluidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	<0.86	<0.82 [<0.82]	<0.86	<0.84	<0.86	<0.85	<1.0	<0.90	<0.86	<0.89
Phenacetin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	0.061	0.060 [0.11]	0.1	0.11	0.092	0.056	0.047	0.078	0.076	0.28
Phenol	<0.18	<0.17 [<0.17]	0.024	0.072	<0.18	<0.18	<0.21	0.032	<0.18	<0.18
Pronamide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	<0.18	<0.17 [<0.17]	<0.18	<0.17	0.057	0.072	0.024	<0.19	0.027	0.09
Pyridine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	<0.18	<0.17 [<0.17]	<0.18	<0.17	<0.18	<0.18	<0.21	<0.19	<0.18	<0.18

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SUMMARY OF SEMIVOLATILE ORGANIC COMPOUNDS SOIL ANALYTICAL RESULTS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	Previous Metal Feedstock SB-305 10 - 12 02/08/95	Previous Metal Feedstock SB-352 0 - 2 06/28/95	Previously Proposed Type III Landfill Area TP1 0 - 4 05/22/98	Previously Proposed Type III Landfill Area TP1 4 - 8 05/22/98	Previously Proposed Type III Landfill Area TP2 0 - 4 05/22/98	Previously Proposed Type III Landfill Area TP2 4 - 8 05/22/98	Previously Proposed Type III Landfill Area TP3 0 - 4 05/22/98	Previously Proposed Type III Landfill Area TP3 4 - 8 05/22/98	Previously Proposed Type III Landfill Area TP4 0 - 4 05/22/98
Semivolatile Organics									
1,2,3,4-Tetrachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,5-Tetrachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4,5-Tetrachlorobenzene	<0.23	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	<0.23	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
1,2-Dichlorobenzene	NA	NA	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
1,2-Dinitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	R	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
1,3-Dinitrobenzene	<0.23	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
1,4-Dinitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	<4.5	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	<0.23	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	<0.23	<0.19	NA	NA	NA	NA	NA	NA	NA
2,3,4,6-Tetrachlorophenol	<1.1	NA	NA	NA	NA	NA	NA	NA	NA
2,3,5,6-Tetrachlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	<0.23	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
2,4,6-Trichlorophenol	<0.23	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
2,4-Diaminotoluene	<0.23	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	<0.23	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
2,4-Dimethylphenol	<0.23	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
2,4-Dinitrophenol	<1.1	<0.90	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6
2,4-Dinitrotoluene	<0.23	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
2,6-Dichlorophenol	<0.23	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	<0.23	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
2-Acetylaminofluorene	<0.45	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	<0.23	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
2-Chlorophenol	<0.23	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
2-Methylnaphthalene	<0.23	0.092	0.85	1.1	1	1.2	0.67	1.1	0.8
2-Methylphenol	<0.23	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
2-Naphthylamine	<0.23	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	<1.1	<0.90	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6
2-Nitrophenol	<0.23	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
2-Picoline	<0.45	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	<0.45	<0.37	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6
3,3'-Dimethylbenzidine	<1.1	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE I-2

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	Previous Metal Feedstock SB-305 10 - 12 02/08/95	Previous Metal Feedstock SB-352 0 - 2 06/28/95	Previously Proposed Type III Landfill Area TP1 0 - 4 05/22/98	Previously Proposed Type III Landfill Area TP1 4 - 8 05/22/98	Previously Proposed Type III Landfill Area TP2 0 - 4 05/22/98	Previously Proposed Type III Landfill Area TP2 4 - 8 05/22/98	Previously Proposed Type III Landfill Area TP3 0 - 4 05/22/98	Previously Proposed Type III Landfill Area TP3 4 - 8 05/22/98	Previously Proposed Type III Landfill Area TP4 0 - 4 05/22/98
Semivolatile Organics									
3-Methylcholanthrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	<0.23	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	<1.1	<0.90	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6
4,4'-Methylene-bis(2-chloroaniline)	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	<1.1	<0.90	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6
4-Aminobiphenyl	<1.1	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	<0.23	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
4-Chloro-3-Methylphenol	<0.23	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
4-Chloroaniline	<0.23	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
4-Chlorobenzilate	<0.23	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	<0.23	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
4-Methylphenol	<0.23	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
4-Nitroaniline	<1.1	<0.90	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6
4-Nitrophenol	<1.1	<0.90	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6
4-Nitroquinoline-1-oxide	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	<1.1	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	<0.23	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	<2.3	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	<2.2	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	<0.23	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Acenaphthylene	<0.23	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Acetophenone	<0.23	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	<0.23	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	<0.23	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Aramite	<1.1	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	<0.23	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	0.12	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Benzo(a)pyrene	<0.23	0.13	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Benzo(b)fluoranthene	<0.23	0.35	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Benzo(g,h,i)perylene	<0.23	0.12	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Benzo(k)fluoranthene	<0.23	0.064	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Benzoic Acid	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	<0.23	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	<0.23	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
bis(2-Chloroethyl)ether	<0.23	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
bis(2-Chloroisopropyl)ether	NA	NA	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33

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TABLE I-2

SUMMARY OF SEMIVOLATILE ORGANIC COMPOUNDS SOIL ANALYTICAL RESULTS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area	Previous Metal Feedstock	Previous Metal Feedstock	Previously Proposed Type III Landfill Area	Previously Proposed Type III Landfill Area	Previously Proposed Type III Landfill Area	Previously Proposed Type III Landfill Area	Previously Proposed Type III Landfill Area	Previously Proposed Type III Landfill Area	Previously Proposed Type III Landfill Area
Location ID	SB-305	SB-352	TP1	TP1	TP2	TP2	TP3	TP3	TP4
Sample Depth (ft bgs):	10 - 12	0 - 2	0 - 4	4 - 8	0 - 4	4 - 8	0 - 4	4 - 8	0 - 4
Date Collected:	02/08/95	06/28/95	05/22/98	05/22/98	05/22/98	05/22/98	05/22/98	05/22/98	05/22/98
Semivolatile Organics									
bis(2-Ethylhexyl)phthalate	<0.23	0.12	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Butylbenzylphthalate	<0.23	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Caprolactam	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	<0.23	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Chrysene	<0.23	0.25	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Diallate	<0.23	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	<0.23	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Dibenzofuran	<0.23	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Diethylphthalate	<0.23	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Dimethylphthalate	<0.23	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Di-n-Butylphthalate	<0.23	1.5	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Di-n-Octylphthalate	<0.23	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Diphenylamine	<0.23	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	<0.0069	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	<0.23	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	<0.23	0.35	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Fluorene	<0.23	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Hexachlorobenzene	<0.23	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Hexachlorobutadiene	<0.23	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Hexachlorocyclopentadiene	<0.23	<0.19	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6
Hexachloroethane	<0.23	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Hexachlorophene	<0.23	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloropropene	<2.3	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	<0.23	0.13	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Isophorone	<0.23	0.18	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Isosafrole	<0.23	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	<2.3	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	<0.23	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	<0.23	0.049	0.69	0.87	0.7	0.76	0.47	0.88	0.47
Nitrobenzene	<0.23	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
N-Nitrosodiethylamine	<0.23	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	<0.23	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	<0.23	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	<0.23	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
N-Nitrosodiphenylamine	<0.23	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
N-Nitrosomethylethylamine	<0.23	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	<0.23	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	<0.23	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	<0.23	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE I-2

SUMMARY OF SEMIVOLATILE ORGANIC COMPOUNDS SOIL ANALYTICAL RESULTS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area	Previous Metal Feedstock	Previous Metal Feedstock	Previously Proposed Type III Landfill Area	Previously Proposed Type III Landfill Area	Previously Proposed Type III Landfill Area	Previously Proposed Type III Landfill Area	Previously Proposed Type III Landfill Area	Previously Proposed Type III Landfill Area	Previously Proposed Type III Landfill Area
Location ID	SB-305	SB-352	TP1	TP1	TP2	TP2	TP3	TP3	TP4
Sample Depth (ft bgs):	10 - 12	0 - 2	0 - 4	4 - 8	0 - 4	4 - 8	0 - 4	4 - 8	0 - 4
Date Collected:	02/08/95	06/28/95	05/22/98	05/22/98	05/22/98	05/22/98	05/22/98	05/22/98	05/22/98
Semivolatile Organics									
o-Toluidine	<0.23	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	<0.45	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	<0.23	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	<1.1	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	<1.1	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	<1.1	<0.90	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Phenacetin	<1.1	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	<0.23	0.13	0.47	0.63	0.53	0.49	0.35	0.53	0.33
Phenol	<0.23	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Pronamide	<0.45	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	<0.23	0.36	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Pyridine	<0.23	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	<0.23	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	<1.1	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	<0.23	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33

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SUMMARY OF SEMIVOLATILE ORGANIC COMPOUNDS SOIL ANALYTICAL RESULTS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area	Previously Proposed Type III Landfill Area	Previously Proposed Type III Landfill Area	Previously Proposed Type III Landfill Area	Previously Proposed Type III Landfill Area	Previously Proposed Type III Landfill Area	Previously Proposed Type III Landfill Area	Primary Settling Pond	Primary Settling Pond	Primary Settling Pond	Primary Settling Pond
Location ID	TP4	TP5	TP5	TP6	TP6	TP7	BH7	BH7	BH8	BH8
Sample Depth (ft bgs):	4 - 8	0 - 4	4 - 8	0 - 4	4 - 8	0 - 4	0 - 2	2 - 4	0 - 2	2 - 4
Date Collected:	05/22/98	05/22/98	05/22/98	05/22/98	05/22/98	05/22/98	03/06/07	03/06/07	03/06/07	03/06/07
Semivolatile Organics										
1,2,3,4-Tetrachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,5-Tetrachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4,5-Tetrachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	NA	NA	NA	NA
1,2-Dichlorobenzene	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	NA	NA	NA	NA
1,2-Dinitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	NA	NA	NA	NA
1,3-Dinitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	NA	NA	NA	NA
1,4-Dinitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	NA	NA	NA	NA	NA	NA	<0.29	<0.35	<0.29	<0.31
2,3,4,6-Tetrachlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,5,6-Tetrachlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.29	<0.35	<0.29	<0.31
2,4,6-Trichlorophenol	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.29	<0.35	<0.29	<0.31
2,4-Diaminotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.29	<0.35	<0.29	<0.31
2,4-Dimethylphenol	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.29	0.11	<0.29	0.034
2,4-Dinitrophenol	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<0.17	<0.20	<0.16	<0.18
2,4-Dinitrotoluene	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.29	<0.35	<0.29	<0.31
2,6-Dichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.29	<0.35	<0.29	<0.31
2-Acetylaminofluorene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.29	<0.35	<0.29	<0.31
2-Chlorophenol	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.29	<0.35	<0.29	<0.31
2-Methylnaphthalene	1.5	0.71	1.1	1.6	1.6	0.58	0.22	1	0.4	0.74
2-Methylphenol	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.29	0.059	<0.29	<0.31
2-Naphthylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<0.22	<0.27	<0.22	<0.24
2-Nitrophenol	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.29	<0.35	<0.29	<0.31
2-Picoline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.8	<2.1	<1.7	<1.9
3,3'-Dimethylbenzidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE I-2

SUMMARY OF SEMIVOLATILE ORGANIC COMPOUNDS SOIL ANALYTICAL RESULTS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area	Previously Proposed Type III Landfill Area	Previously Proposed Type III Landfill Area	Previously Proposed Type III Landfill Area	Previously Proposed Type III Landfill Area	Previously Proposed Type III Landfill Area	Previously Proposed Type III Landfill Area	Primary Settling Pond	Primary Settling Pond	Primary Settling Pond	Primary Settling Pond
Location ID	TP4	TP5	TP5	TP6	TP6	TP7	BH7	BH7	BH8	BH8
Sample Depth (ft bgs):	4 - 8	0 - 4	4 - 8	0 - 4	4 - 8	0 - 4	0 - 2	2 - 4	0 - 2	2 - 4
Date Collected:	05/22/98	05/22/98	05/22/98	05/22/98	05/22/98	05/22/98	03/06/07	03/06/07	03/06/07	03/06/07
Semivolatile Organics										
3-Methylcholanthrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<0.22	<0.27	<0.22	<0.24
4,4'-Methylene-bis(2-chloroaniline)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<0.17	<0.20	<0.16	<0.18
4-Aminobiphenyl	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.29	<0.35	<0.29	<0.31
4-Chloro-3-Methylphenol	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.29	<0.35	<0.29	<0.31
4-Chloroaniline	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.17	<0.20	<0.16	<0.18
4-Chlorobenzilate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.29	<0.35	<0.29	<0.31
4-Methylphenol	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.29	0.057	<0.29	0.028
4-Nitroaniline	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<0.22	<0.27	<0.22	<0.24
4-Nitrophenol	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<0.37	<0.44	<0.36	<0.39
4-Nitroquinoline-1-oxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.29	0.067	<0.29	0.026
Acenaphthylene	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.29	0.018	<0.29	<0.31
Acetophenone	NA	NA	NA	NA	NA	NA	<0.29	<0.35	<0.29	<0.31
Aniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	0.016	0.099	0.016	0.036
Aramite	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	NA	NA	NA	NA	NA	NA	<0.044	<0.054	<0.043	<0.048
Benzaldehyde	NA	NA	NA	NA	NA	NA	<0.29	<0.35	<0.29	<0.31
Benzidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	0.051	0.09	0.022	0.047
Benzo(a)pyrene	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	0.068	0.064	<0.29	<0.31
Benzo(b)fluoranthene	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	0.065	0.052	0.019	0.026
Benzo(g,h,i)perylene	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	0.029	<0.35	<0.29	<0.31
Benzo(k)fluoranthene	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	0.037	0.041	0.01	0.022
Benzoic Acid	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	NA	NA	NA	NA	NA	NA	<0.29	0.12	0.055	0.11
bis(2-Chloroethoxy)methane	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.29	<0.35	<0.29	<0.31
bis(2-Chloroethyl)ether	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.089	<0.11	<0.087	<0.095
bis(2-Chloroisopropyl)ether	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	NA	NA	NA	NA

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TABLE I-2

SUMMARY OF SEMIVOLATILE ORGANIC COMPOUNDS SOIL ANALYTICAL RESULTS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area	Previously Proposed Type III Landfill Area	Previously Proposed Type III Landfill Area	Previously Proposed Type III Landfill Area	Previously Proposed Type III Landfill Area	Previously Proposed Type III Landfill Area	Previously Proposed Type III Landfill Area	Primary Settling Pond	Primary Settling Pond	Primary Settling Pond	Primary Settling Pond
Location ID	TP4	TP5	TP5	TP6	TP6	TP7	BH7	BH7	BH8	BH8
Sample Depth (ft bgs):	4 - 8	0 - 4	4 - 8	0 - 4	4 - 8	0 - 4	0 - 2	2 - 4	0 - 2	2 - 4
Date Collected:	05/22/98	05/22/98	05/22/98	05/22/98	05/22/98	05/22/98	03/06/07	03/06/07	03/06/07	03/06/07
Semivolatile Organics										
bis(2-Ethylhexyl)phthalate	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.29	<0.35	<0.29	<0.31
Butylbenzylphthalate	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.29	<0.35	<0.29	<0.31
Caprolactam	NA	NA	NA	NA	NA	NA	<0.29	<0.35	<0.29	<0.31
Carbazole	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.29	<0.35	<0.29	<0.31
Chrysene	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	0.082	0.11	0.036	0.068
Diallate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.29	<0.35	<0.29	<0.31
Dibenzofuran	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	0.041	0.24	0.09	0.16
Diethylphthalate	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.29	<0.35	<0.29	<0.31
Dimethylphthalate	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.29	<0.35	<0.29	<0.31
Di-n-Butylphthalate	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.29	<0.35	<0.29	0.025
Di-n-Octylphthalate	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.29	<0.35	<0.29	<0.31
Diphenylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	0.081	0.16	0.051	0.084
Fluorene	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	0.01	0.14	0.016	0.042
Hexachlorobenzene	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.29	<0.35	<0.29	<0.31
Hexachlorobutadiene	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.044	<0.054	<0.043	<0.048
Hexachlorocyclopentadiene	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<0.29	<0.35	<0.29	<0.31
Hexachloroethane	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.29	<0.35	<0.29	<0.31
Hexachlorophene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	0.025	<0.35	<0.29	<0.31
Isophorone	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.29	0.56	<0.29	<0.31
Isosafrole	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	0.92	0.5	0.66	1.1	1.1	0.37	0.12	0.74	0.24	0.45
Nitrobenzene	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.29	<0.35	<0.29	<0.31
N-Nitrosodiethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.29	<0.35	<0.29	<0.31
N-Nitrosodiphenylamine	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.29	<0.35	<0.29	<0.31
N-Nitrosomethylethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE I-2

SUMMARY OF SEMIVOLATILE ORGANIC COMPOUNDS SOIL ANALYTICAL RESULTS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area	Previously Proposed Type III Landfill Area	Previously Proposed Type III Landfill Area	Previously Proposed Type III Landfill Area	Previously Proposed Type III Landfill Area	Previously Proposed Type III Landfill Area	Previously Proposed Type III Landfill Area	Primary Settling Pond	Primary Settling Pond	Primary Settling Pond	Primary Settling Pond
Location ID	TP4	TP5	TP5	TP6	TP6	TP7	BH7	BH7	BH8	BH8
Sample Depth (ft bgs):	4 - 8	0 - 4	4 - 8	0 - 4	4 - 8	0 - 4	0 - 2	2 - 4	0 - 2	2 - 4
Date Collected:	05/22/98	05/22/98	05/22/98	05/22/98	05/22/98	05/22/98	03/06/07	03/06/07	03/06/07	03/06/07
Semivolatile Organics										
o-Toluidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.17	<0.20	<0.16	<0.18
Phenacetin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	0.57	0.46	0.45	0.69	0.73	<0.33	0.13	0.68	0.2	0.33
Phenol	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	0.14	<0.35	<0.29	<0.31
Pronamide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	0.075	0.17	0.04	0.078
Pyridine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.29	0.059	<0.29	<0.31

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SUMMARY OF SEMIVOLATILE ORGANIC COMPOUNDS SOIL ANALYTICAL RESULTS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	Primary Settling Pond NS-1 0 - 14 06/23/95	Railyard Area BH11 0 - 2 03/06/07	Railyard Area BH11 2 - 4 03/06/07	Railyard Area BH12 0 - 2 03/06/07	Railyard Area BH12 2 - 4 03/06/07	Railyard Area NS-RS-4 2.5 - 3 06/13/95	Railyard Area RS-1 0 - 1 06/13/95	Railyard Area RS-2 0 - 1 06/13/95	Railyard Area RS-3 0 - 1 06/13/95	Railyard Area RS-4 0 - 1 06/13/95	Railyard Area RS-6 0 - 1 06/13/95
Semivolatile Organics											
1,2,3,4-Tetrachlorobenzene	NA	NA	NA	NA	NA	<0.21	NA	NA	NA	NA	NA
1,2,3,5-Tetrachlorobenzene	NA	NA	NA	NA	NA	<0.21	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	<0.21	NA	NA	NA	NA	NA
1,2,4,5-Tetrachlorobenzene	NA	NA	NA	NA	NA	<0.21	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	<0.24	NA	NA	NA	NA	<0.21	<0.17	<0.90	<0.18	<0.17 [<0.35]	<0.17
1,2-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dinitrobenzene	NA	NA	NA	NA	NA	<0.21	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	NA	NA	NA	NA	NA	<0.21	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	NA	NA	NA	NA	NA	R	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	NA	NA	NA	NA	NA	<0.21	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	NA	NA	NA	NA	NA	<0.21	NA	NA	NA	NA	NA
1,4-Naphthoquinone	NA	NA	NA	NA	NA	<4.2	NA	NA	NA	NA	NA
1-Naphthylamine	NA	NA	NA	NA	NA	<0.21	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	<0.24	<1.2	<0.31	<0.30 [<0.30]	<0.29	<0.21	<0.17	<0.90	<0.18	<0.17 [<0.35]	<0.17
2,3,4,6-Tetrachlorophenol	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA
2,3,5,6-Tetrachlorophenol	NA	NA	NA	NA	NA	<0.21	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	<0.24	<1.2	<0.31	<0.30 [<0.30]	<0.29	<0.21	<0.17	<0.90	<0.18	<0.17 [<0.35]	<0.17
2,4,6-Trichlorophenol	<0.24	<1.2	<0.31	<0.30 [<0.30]	<0.29	<0.21	<0.17	<0.90	<0.18	<0.17 [<0.35]	<0.17
2,4-Diaminotoluene	NA	NA	NA	NA	NA	<0.21	NA	NA	NA	NA	NA
2,4-Dichlorophenol	<0.24	<1.2	<0.31	<0.30 [<0.30]	<0.29	<0.21	<0.17	<0.90	<0.18	<0.17 [<0.35]	<0.17
2,4-Dimethylphenol	<0.24	<1.2	<0.31	<0.30 [<0.30]	<0.29	<0.21	<0.17	<0.90	<0.18	0.028 [<0.35]	<0.17
2,4-Dinitrophenol	<1.2	<0.68	<0.18	<0.17 [<0.17]	<0.17	<1.0	<0.84	<4.3	<0.86	<0.85 [<1.7]	<0.84
2,4-Dinitrotoluene	<0.24	<1.2	<0.31	<0.30 [<0.30]	<0.29	<0.21	<0.17	<0.90	<0.18	<0.17 [<0.35]	<0.17
2,6-Dichlorophenol	NA	NA	NA	NA	NA	<0.21	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	<0.24	<1.2	<0.31	<0.30 [<0.30]	<0.29	<0.21	<0.17	<0.90	<0.18	<0.17 [<0.35]	<0.17
2-Acetylaminofluorene	NA	NA	NA	NA	NA	<0.42	NA	NA	NA	NA	NA
2-Chloronaphthalene	<0.24	<1.2	<0.31	<0.30 [<0.30]	<0.29	<0.21	<0.17	<0.90	<0.18	<0.17 [<0.35]	<0.17
2-Chlorophenol	<0.24	<1.2	<0.31	<0.30 [<0.30]	<0.29	<0.21	<0.17	<0.90	<0.18	<0.17 [<0.35]	<0.17
2-Methylnaphthalene	<0.24	0.35	0.0098	0.023 [0.038]	0.058	<0.21	0.73	0.3	0.14	1.1 [0.76]	0.039
2-Methylphenol	<0.24	<1.2	<0.31	<0.30 [<0.30]	<0.29	<0.21	<0.17	<0.90	<0.18	<0.17 [<0.35]	<0.17
2-Naphthylamine	NA	NA	NA	NA	NA	<0.21	NA	NA	NA	NA	NA
2-Nitroaniline	<1.2	<0.91	<0.24	<0.23 [<0.23]	<0.22	<1.0	<0.84	<4.3	<0.86	<0.85 [<1.7]	<0.84
2-Nitrophenol	<0.24	<1.2	<0.31	<0.30 [<0.30]	<0.29	<0.21	<0.17	<0.90	<0.18	<0.17 [<0.35]	<0.17
2-Picoline	NA	NA	NA	NA	NA	<0.42	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	<0.49	<7.2	<1.9	<1.8 [<1.8]	<1.8	<0.42	<0.35	<1.8	<0.35	<0.35 [<0.70]	<0.35
3,3'-Dimethylbenzidine	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA

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TABLE I-2

SUMMARY OF SEMIVOLATILE ORGANIC COMPOUNDS SOIL ANALYTICAL RESULTS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area	Primary Settling Pond	Railyard Area	Railyard Area	Railyard Area	Railyard Area	Railyard Area	Railyard Area	Railyard Area	Railyard Area	Railyard Area	Railyard Area
Location ID	NS-1	BH11	BH11	BH12	BH12	NS-RS-4	RS-1	RS-2	RS-3	RS-4	RS-6
Sample Depth (ft bgs):	0 - 14	0 - 2	2 - 4	0 - 2	2 - 4	2.5 - 3	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1
Date Collected:	06/23/95	03/06/07	03/06/07	03/06/07	03/06/07	06/13/95	06/13/95	06/13/95	06/13/95	06/13/95	06/13/95
Semivolatile Organics											
3-Methylcholanthrene	NA	NA	NA	NA	NA	<2.1	NA	NA	NA	NA	NA
3-Methylphenol	NA	NA	NA	NA	NA	<0.21	NA	NA	NA	NA	NA
3-Nitroaniline	<1.2	<0.91	<0.24	<0.23 [<0.23]	<0.22	<1.0	<0.84	<4.3	<0.86	<0.85 [<1.7]	<0.84
4,4'-Methylene-bis(2-chloroaniline)	NA	NA	NA	NA	NA	<0.21	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	<1.2	<0.68	<0.18	<0.17 [<0.17]	<0.17	<1.0	<0.84	<4.3	<0.86	<0.85 [<1.7]	<0.84
4-Aminobiphenyl	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	<0.24	<1.2	<0.31	<0.30 [<0.30]	<0.29	<0.21	<0.17	<0.90	<0.18	<0.17 [<0.35]	<0.17
4-Chloro-3-Methylphenol	<0.24	<1.2	<0.31	<0.30 [<0.30]	<0.29	<0.21	<0.17	<0.90	<0.18	<0.17 [<0.35]	<0.17
4-Chloroaniline	<0.24	<0.68	<0.18	<0.17 [<0.17]	<0.17	<0.21	<0.17	<0.90	<0.18	<0.17 [<0.35]	<0.17
4-Chlorobenzilate	NA	NA	NA	NA	NA	<0.21	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	<0.24	<1.2	<0.31	<0.30 [<0.30]	<0.29	<0.21	<0.17	<0.90	<0.18	<0.17 [<0.35]	<0.17
4-Methylphenol	<0.24	<1.2	<0.31	<0.30 [<0.30]	<0.29	<0.21	<0.17	<0.90	<0.18	<0.17 [<0.35]	<0.17
4-Nitroaniline	<1.2	<0.91	<0.24	<0.23 [<0.23]	<0.22	<1.0	<0.84	<4.3	<0.86	<0.85 [<1.7]	<0.84
4-Nitrophenol	<1.2	<1.5	<0.39	<0.37 [<0.38]	<0.37	<1.0	<0.84	<4.3	<0.86	<0.85 [<1.7]	<0.84
4-Nitroquinoline-1-oxide	NA	NA	NA	NA	NA	<2.1	NA	NA	NA	NA	NA
4-Phenylenediamine	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	NA	NA	NA	NA	NA	<0.21	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	NA	NA	NA	NA	NA	<2.1	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	NA	NA	NA	NA	NA	<2.0	NA	NA	NA	NA	NA
Acenaphthene	<0.24	0.031	<0.31	<0.30 [<0.30]	0.068	<0.21	<0.17	<0.90	<0.18	0.020 [<0.35]	<0.17
Acenaphthylene	<0.24	0.032	<0.31	0.0076 [0.011]	0.035	<0.21	<0.17	<0.90	<0.18	<0.17 [<0.35]	<0.17
Acetophenone	NA	<1.2	<0.31	<0.30 [<0.30]	<0.29	<0.21	NA	NA	NA	NA	NA
Aniline	NA	NA	NA	NA	NA	<0.21	NA	NA	NA	NA	NA
Anthracene	<0.24	0.1	<0.31	0.0092 [0.0086]	0.023	<0.21	0.091	<0.90	0.026	0.045 [<0.35]	<0.17
Aramite	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA
Atrazine	NA	<0.18	<0.048	<0.045 [<0.046]	<0.044	NA	NA	NA	NA	NA	NA
Benzaldehyde	NA	<1.2	<0.31	<0.30 [<0.30]	<0.29	NA	NA	NA	NA	NA	NA
Benzidine	NA	NA	NA	NA	NA	<0.21	NA	NA	NA	NA	NA
Benzo(a)anthracene	<0.24	0.31	0.0079	0.036 [0.028]	0.06	<0.21	0.15	0.22	0.14	0.13 [0.085]	0.069
Benzo(a)pyrene	<0.24	0.36	<0.31	0.035 [0.021]	0.061	<0.21	0.11	0.22	0.12	0.11 [0.065]	0.064
Benzo(b)fluoranthene	<0.24	0.43	<0.31	0.046 [0.037]	0.066	<0.21	0.16	0.46	0.3	0.14 [0.095]	0.098
Benzo(g,h,i)perylene	<0.24	0.2	<0.31	<0.30 [<0.30]	0.031	<0.21	0.067	<0.90	0.096	0.052 [0.047]	0.037
Benzo(k)fluoranthene	<0.24	0.19	<0.31	0.021 [0.0099]	0.043	<0.21	0.046	<0.90	<0.18	0.081 [0.038]	0.052
Benzoic Acid	NA	NA	NA	NA	NA	<0.42	NA	NA	NA	NA	NA
Benzyl Alcohol	NA	NA	NA	NA	NA	<0.21	NA	NA	NA	NA	NA
Biphenyl	NA	<1.2	<0.31	<0.30 [<0.30]	<0.29	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	<0.24	<1.2	<0.31	<0.30 [<0.30]	<0.29	<0.21	<0.17	<0.90	<0.18	<0.17 [<0.35]	<0.17
bis(2-Chloroethyl)ether	<0.24	<0.36	<0.095	<0.090 [<0.091]	<0.089	<0.21	<0.17	<0.90	<0.18	<0.17 [<0.35]	<0.17
bis(2-Chloroisopropyl)ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE I-2

SUMMARY OF SEMIVOLATILE ORGANIC COMPOUNDS SOIL ANALYTICAL RESULTS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area	Primary Settling Pond	Railyard Area	Railyard Area	Railyard Area	Railyard Area	Railyard Area	Railyard Area	Railyard Area	Railyard Area	Railyard Area	Railyard Area
Location ID	NS-1	BH11	BH11	BH12	BH12	NS-RS-4	RS-1	RS-2	RS-3	RS-4	RS-6
Sample Depth (ft bgs):	0 - 14	0 - 2	2 - 4	0 - 2	2 - 4	2.5 - 3	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1
Date Collected:	06/23/95	03/06/07	03/06/07	03/06/07	03/06/07	06/13/95	06/13/95	06/13/95	06/13/95	06/13/95	06/13/95
Semivolatile Organics											
bis(2-Ethylhexyl)phthalate	0.33	<1.2	<0.31	<0.30 [<0.30]	<0.29	<0.21	<0.17	<0.90	0.074	0.29 [<0.35]	<0.17
Butylbenzylphthalate	0.25	<1.2	<0.31	<0.30 [<0.30]	<0.29	<0.21	<0.17	9.2	<0.18	0.20 [0.099]	0.027
Caprolactam	NA	<1.2	<0.31	<0.30 [<0.30]	<0.29	NA	NA	NA	NA	NA	NA
Carbazole	<0.24	<1.2	<0.31	<0.30 [<0.30]	<0.29	<0.21	<0.17	<0.90	<0.18	<0.17 [<0.35]	<0.17
Chrysene	<0.24	0.42	0.0091	0.047 [0.034]	0.072	<0.21	0.18	0.35	0.19	0.20 [0.13]	0.089
Diallate	NA	NA	NA	NA	NA	<0.21	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	<0.24	<1.2	<0.31	<0.30 [<0.30]	<0.29	<0.21	<0.17	<0.90	<0.18	<0.17 [<0.35]	<0.17
Dibenzofuran	<0.24	<1.2	<0.31	<0.30 [<0.30]	<0.29	<0.21	0.19	<0.90	0.036	0.25 [0.17]	<0.17
Diethylphthalate	<0.24	<1.2	<0.31	<0.30 [<0.30]	<0.29	<0.21	<0.17	<0.90	<0.18	<0.17 [<0.35]	<0.17
Dimethylphthalate	<0.24	<1.2	<0.31	<0.30 [<0.30]	<0.29	<0.21	<0.17	<0.90	<0.18	<0.17 [<0.35]	<0.17
Di-n-Butylphthalate	3	<1.2	<0.31	<0.30 [<0.30]	0.037	3.2	0.046	<0.90	0.11	2.2 [4.1]	2.1
Di-n-Octylphthalate	<0.24	<1.2	<0.31	<0.30 [<0.30]	<0.29	<0.21	<0.17	<0.90	<0.18	<0.17 [<0.35]	<0.17
Diphenylamine	NA	NA	NA	NA	NA	<0.21	NA	NA	NA	NA	NA
Ethyl Methacrylate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	NA	NA	NA	NA	NA	<0.21	NA	NA	NA	NA	NA
Fluoranthene	<0.24	0.58	0.0091	0.073 [0.049]	0.13	<0.21	0.32	0.41	0.23	0.27 [0.17]	0.15
Fluorene	<0.24	0.04	<0.31	<0.30 [<0.30]	0.029	<0.21	0.056	<0.90	<0.18	0.045 [<0.35]	<0.17
Hexachlorobenzene	<0.24	<1.2	<0.31	<0.30 [<0.30]	<0.29	<0.21	<0.17	<0.90	<0.18	<0.17 [<0.35]	<0.17
Hexachlorobutadiene	<0.24	<0.18	<0.048	<0.045 [<0.046]	<0.044	<0.21	<0.17	<0.90	<0.18	<0.17 [<0.35]	<0.17
Hexachlorocyclopentadiene	<0.24	<1.2	<0.31	<0.30 [<0.30]	<0.29	<0.21	<0.17	<0.90	<0.18	<0.17 [<0.35]	<0.17
Hexachloroethane	<0.24	<1.2	<0.31	<0.30 [<0.30]	<0.29	<0.21	<0.17	<0.90	<0.18	<0.17 [<0.35]	<0.17
Hexachlorophene	NA	NA	NA	NA	NA	<0.21	NA	NA	NA	NA	NA
Hexachloropropene	NA	NA	NA	NA	NA	<2.1	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	<0.24	0.2	<0.31	0.021 [<0.30]	0.03	<0.21	0.046	<0.90	0.068	0.036 [<0.35]	0.032
Isophorone	<0.24	<1.2	<0.31	<0.30 [<0.30]	<0.29	<0.21	<0.17	<0.90	<0.18	<0.17 [<0.35]	<0.17
Isosafrole	NA	NA	NA	NA	NA	<0.21	NA	NA	NA	NA	NA
Methapyrilene	NA	NA	NA	NA	NA	<2.1	NA	NA	NA	NA	NA
Methyl Methanesulfonate	NA	NA	NA	NA	NA	<0.21	NA	NA	NA	NA	NA
Naphthalene	<0.24	0.15	0.013	0.014 [0.025]	0.064	<0.21	0.49	0.26	0.089	0.65 [0.45]	<0.17
Nitrobenzene	<0.24	<1.2	<0.31	<0.30 [<0.30]	<0.29	<0.21	<0.17	<0.90	<0.18	<0.17 [<0.35]	<0.17
N-Nitrosodiethylamine	NA	NA	NA	NA	NA	<0.21	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	NA	NA	NA	NA	NA	<0.21	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	NA	NA	NA	NA	NA	<0.21	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	<0.24	<1.2	<0.31	<0.30 [<0.30]	<0.29	<0.21	<0.17	<0.90	<0.18	<0.17 [<0.35]	<0.17
N-Nitrosodiphenylamine	<0.24	<1.2	<0.31	<0.30 [<0.30]	<0.29	<0.21	<0.17	<0.90	<0.18	<0.17 [<0.35]	<0.17
N-Nitrosomethylethylamine	NA	NA	NA	NA	NA	<0.21	NA	NA	NA	NA	NA
N-Nitrosomorpholine	NA	NA	NA	NA	NA	<0.21	NA	NA	NA	NA	NA
N-Nitrosopiperidine	NA	NA	NA	NA	NA	<0.21	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	NA	NA	NA	NA	NA	<0.21	NA	NA	NA	NA	NA

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TABLE I-2

SUMMARY OF SEMIVOLATILE ORGANIC COMPOUNDS SOIL ANALYTICAL RESULTS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	Primary Settling Pond NS-1 0 - 14 06/23/95	Railyard Area BH11 0 - 2 03/06/07	Railyard Area BH11 2 - 4 03/06/07	Railyard Area BH12 0 - 2 03/06/07	Railyard Area BH12 2 - 4 03/06/07	Railyard Area NS-RS-4 2.5 - 3 06/13/95	Railyard Area RS-1 0 - 1 06/13/95	Railyard Area RS-2 0 - 1 06/13/95	Railyard Area RS-3 0 - 1 06/13/95	Railyard Area RS-4 0 - 1 06/13/95	Railyard Area RS-6 0 - 1 06/13/95
Semivolatile Organics											
o-Toluidine	NA	NA	NA	NA	NA	<0.21	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	NA	NA	NA	NA	NA	<0.42	NA	NA	NA	NA	NA
Pentachlorobenzene	NA	NA	NA	NA	NA	<0.21	NA	NA	NA	NA	NA
Pentachloroethane	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA
Pentachloronitrobenzene	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA
Pentachlorophenol	<1.2	<0.68	<0.18	<0.17 [<0.17]	<0.17	<1.0	<0.84	<4.3	<0.86	<0.85 [<1.7]	<0.84
Phenacetin	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA
Phenanthrene	<0.24	0.45	<0.31	0.062 [0.041]	0.11	<0.21	0.6	0.33	0.17	0.55 [0.35]	0.09
Phenol	<0.24	<1.2	<0.31	<0.30 [<0.30]	<0.29	<0.21	0.024	<0.90	<0.18	<0.17 [<0.35]	<0.17
Pronamide	NA	NA	NA	NA	NA	<0.42	NA	NA	NA	NA	NA
Pyrene	<0.24	0.58	0.01	0.076 [0.054]	0.14	<0.21	0.3	0.53	0.26	0.20 [0.13]	0.091
Pyridine	NA	NA	NA	NA	NA	<0.21	NA	NA	NA	NA	NA
Safrole	NA	NA	NA	NA	NA	<0.21	NA	NA	NA	NA	NA
Sulfotep	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA
Total Methylphenols	<0.24	<1.2	<0.31	<0.30 [<0.30]	<0.29	<0.21	<0.17	<0.90	<0.18	<0.17 [<0.35]	<0.17

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SUMMARY OF SEMIVOLATILE ORGANIC COMPOUNDS SOIL ANALYTICAL RESULTS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	Railyard Area RS-7 0 - 1 06/13/95	Railyard Area RS-8 0 - 1 06/13/95	Stormwater Pond NS-7 0 - 4.5 06/21/95	Stormwater Pond NS-8 0 - 10 06/21/95	Stormwater Pond NS-9 0 - 4.5 06/21/95	Stormwater Pond NS-10 0 - 10 06/21/95	UST 7 BBL-MW1 4 - 6 05/02/96	UST 7 BBL-MW2 4 - 6 05/02/96	UST 7 BBL-MW3 6 - 8 05/02/96	UST 7 BBL-MW4 4 - 6 05/03/96	UST 7 BBL-MW5 4 - 6 05/03/96	UST 7 BBL-SB1 4 - 6 05/06/96	UST 7 BBL-SB1 8 - 10 05/06/96	UST 7 BBL-SB2 0 - 2 05/07/96
Semivolatile Organics														
1,2,3,4-Tetrachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,5-Tetrachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4,5-Tetrachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	<0.18	<0.17	<0.21	<0.24	<0.21	<0.22	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	NA	NA	NA	NA	<0.013	<0.0058	<1.0	<0.0055	<0.0056	<0.0057	<3.5	<0.0054
1,2-Dinitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA	NA	NA	NA	<0.013	<0.0058	<1.0	<0.0055	<0.0056	<0.0057	<3.5	<0.0054
1,3-Dinitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	NA	NA	NA	NA	<0.013	<0.0058	<1.0	<0.0055	<0.0056	<0.0057	<3.5	<0.0054
1,4-Dinitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	<0.18	<0.17	<0.21	<0.24	<0.21	<0.22	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6-Tetrachlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,5,6-Tetrachlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	<0.18	<0.17	<0.21	<0.24	<0.21	<0.22	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	<0.18	<0.17	<0.21	<0.24	<0.21	<0.22	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Diaminotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	<0.18	<0.17	<0.21	<0.24	<0.21	<0.22	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	0.071	<0.17	<0.21	<0.24	<0.21	<0.22	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	<0.86	<0.84	<1.0	<1.2	<1.0	<1.1	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	<0.18	<0.17	<0.21	<0.24	<0.21	<0.22	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	<0.18	<0.17	<0.21	<0.24	<0.21	<0.22	NA	NA	NA	NA	NA	NA	NA	NA
2-Acetylaminofluorene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	<0.18	<0.17	<0.21	<0.24	<0.21	<0.22	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	<0.18	<0.17	<0.21	<0.24	<0.21	<0.22	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	1.8	0.26	<0.21	<0.24	<0.21	<0.22	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	0.039	<0.17	<0.21	<0.24	<0.21	<0.22	NA	NA	NA	NA	NA	NA	NA	NA
2-Naphthylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	<0.86	<0.84	<1.0	<1.2	<1.0	<1.1	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	<0.18	<0.17	<0.21	<0.24	<0.21	<0.22	NA	NA	NA	NA	NA	NA	NA	NA
2-Picoline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	<0.35	<0.35	<0.41	<0.48	<0.43	<0.44	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dimethylbenzidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE I-2

SUMMARY OF SEMIVOLATILE ORGANIC COMPOUNDS SOIL ANALYTICAL RESULTS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area	Railyard Area	Railyard Area	Stormwater Pond	Stormwater Pond	Stormwater Pond	Stormwater Pond	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7
Location ID	RS-7	RS-8	NS-7	NS-8	NS-9	NS-10	BBL-MW1	BBL-MW2	BBL-MW3	BBL-MW4	BBL-MW5	BBL-SB1	BBL-SB1	BBL-SB2
Sample Depth (ft bgs):	0 - 1	0 - 1	0 - 4.5	0 - 10	0 - 4.5	0 - 10	4 - 6	4 - 6	6 - 8	4 - 6	4 - 6	4 - 6	8 - 10	0 - 2
Date Collected:	06/13/95	06/13/95	06/21/95	06/21/95	06/21/95	06/21/95	05/02/96	05/02/96	05/02/96	05/03/96	05/03/96	05/06/96	05/06/96	05/07/96
Semivolatile Organics														
3-Methylcholanthrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	<0.86	<0.84	<1.0	<1.2	<1.0	<1.1	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-Methylene-bis(2-chloroaniline)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	<0.86	<0.84	<1.0	<1.2	<1.0	<1.1	NA	NA	NA	NA	NA	NA	NA	NA
4-Aminobiphenyl	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	<0.18	<0.17	<0.21	<0.24	<0.21	<0.22	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	<0.18	<0.17	<0.21	<0.24	<0.21	<0.22	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	<0.18	<0.17	<0.21	<0.24	<0.21	<0.22	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorobenzilate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	<0.18	<0.17	<0.21	<0.24	<0.21	<0.22	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	0.037	<0.17	<0.21	<0.24	<0.21	<0.22	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	<0.86	<0.84	<1.0	<1.2	<1.0	<1.1	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	<0.86	<0.84	<1.0	<1.2	<1.0	<1.1	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroquinoline-1-oxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	<0.18	<0.17	<0.21	<0.24	<0.21	<0.22	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	<0.18	<0.17	<0.21	<0.24	<0.21	<0.22	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	0.053	0.029	<0.21	<0.24	<0.21	<0.22	NA	NA	NA	NA	NA	NA	NA	NA
Aramite	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	0.099	0.14	<0.21	<0.24	<0.21	<0.22	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.053	0.11	<0.21	0.05	0.05	<0.22	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	0.094	0.18	<0.21	<0.24	<0.21	<0.22	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	0.041	0.054	<0.21	<0.24	<0.21	<0.22	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	<0.18	0.086	<0.21	<0.24	<0.21	<0.22	NA	NA	NA	NA	NA	NA	NA	NA
Benzoic Acid	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	<0.18	<0.17	<0.21	<0.24	<0.21	<0.22	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	<0.18	<0.17	<0.21	<0.24	<0.21	<0.22	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroisopropyl)ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE I-2

SUMMARY OF SEMIVOLATILE ORGANIC COMPOUNDS SOIL ANALYTICAL RESULTS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area	Railyard Area	Railyard Area	Stormwater Pond	Stormwater Pond	Stormwater Pond	Stormwater Pond	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7
Location ID	RS-7	RS-8	NS-7	NS-8	NS-9	NS-10	BBL-MW1	BBL-MW2	BBL-MW3	BBL-MW4	BBL-MW5	BBL-SB1	BBL-SB1	BBL-SB2
Sample Depth (ft bgs):	0 - 1	0 - 1	0 - 4.5	0 - 10	0 - 4.5	0 - 10	4 - 6	4 - 6	6 - 8	4 - 6	4 - 6	4 - 6	8 - 10	0 - 2
Date Collected:	06/13/95	06/13/95	06/21/95	06/21/95	06/21/95	06/21/95	05/02/96	05/02/96	05/02/96	05/03/96	05/03/96	05/06/96	05/06/96	05/07/96
Semivolatile Organics														
bis(2-Ethylhexyl)phthalate	<0.18	<0.17	<0.21	<0.24	<0.21	<0.22	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	0.045	0.056	<0.21	<0.24	<0.21	<0.22	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	<0.18	<0.17	<0.21	<0.24	<0.21	<0.22	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.14	0.18	<0.21	<0.24	<0.21	<0.22	NA	NA	NA	NA	NA	NA	NA	NA
Diallate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	<0.18	<0.17	<0.21	<0.24	<0.21	<0.22	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	0.37	0.067	<0.21	<0.24	<0.21	<0.22	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	<0.18	<0.17	<0.21	<0.24	<0.21	<0.22	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	<0.18	<0.17	<0.21	<0.24	<0.21	<0.22	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	3.6 D	1.4	<0.21	<0.24	<0.21	<0.22	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	3.6 D	<0.17	<0.21	<0.24	<0.21	<0.22	NA	NA	NA	NA	NA	NA	NA	NA
Diphenylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	0.24	0.32	<0.21	<0.24	<0.21	<0.22	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	0.061	<0.17	<0.21	<0.24	<0.21	<0.22	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	<0.18	<0.17	<0.21	<0.24	<0.21	<0.22	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	<0.18	<0.17	<0.21	<0.24	<0.21	<0.22	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	<0.18	<0.17	<0.21	<0.24	<0.21	<0.22	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	<0.18	<0.17	<0.21	<0.24	<0.21	<0.22	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorophene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	<0.18	0.047	<0.21	<0.24	<0.21	<0.22	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	<0.18	<0.17	<0.21	<0.24	<0.21	<0.22	NA	NA	NA	NA	NA	NA	NA	NA
Isosafrole	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	1	0.17	<0.21	<0.24	<0.21	<0.22	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	<0.18	<0.17	<0.21	<0.24	<0.21	<0.22	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	<0.18	<0.17	<0.21	<0.24	<0.21	<0.22	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	<0.18	<0.17	<0.21	<0.24	<0.21	<0.22	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomethylethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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SUMMARY OF SEMIVOLATILE ORGANIC COMPOUNDS SOIL ANALYTICAL RESULTS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area	Railyard Area	Railyard Area	Stormwater Pond	Stormwater Pond	Stormwater Pond	Stormwater Pond	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7
Location ID	RS-7	RS-8	NS-7	NS-8	NS-9	NS-10	BBL-MW1	BBL-MW2	BBL-MW3	BBL-MW4	BBL-MW5	BBL-SB1	BBL-SB1	BBL-SB2
Sample Depth (ft bgs):	0 - 1	0 - 1	0 - 4.5	0 - 10	0 - 4.5	0 - 10	4 - 6	4 - 6	6 - 8	4 - 6	4 - 6	4 - 6	8 - 10	0 - 2
Date Collected:	06/13/95	06/13/95	06/21/95	06/21/95	06/21/95	06/21/95	05/02/96	05/02/96	05/02/96	05/03/96	05/03/96	05/06/96	05/06/96	05/07/96
Semivolatile Organics														
o-Toluidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	<0.86	<0.84	<1.0	<1.2	<1.0	<1.1	NA	NA	NA	NA	NA	NA	NA	NA
Phenacetin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	0.87	0.27	<0.21	<0.24	<0.21	<0.22	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	0.057	<0.17	<0.21	<0.24	<0.21	<0.22	NA	NA	NA	NA	NA	NA	NA	NA
Pronamide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	0.12	0.19	<0.21	<0.24	<0.21	<0.22	NA	NA	NA	NA	NA	NA	NA	NA
Pyridine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	0.039	<0.17	<0.21	<0.24	<0.21	<0.22	NA	NA	NA	NA	NA	NA	NA	NA

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SUMMARY OF SEMIVOLATILE ORGANIC COMPOUNDS SOIL ANALYTICAL RESULTS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	UST 7 BBL-SB2 8 - 10 05/07/96	UST 7 BBL-SB3 6 - 8 05/07/96	UST 7 BBL-SB3 8 - 10 05/07/96	UST 7 BBL-SB4 0 - 2 05/07/96	UST 7 BBL-SB4 8 - 10 05/07/96	UST 7 BBL-SB5 0 - 2 05/06/96	UST 7 BBL-SB5 20 - 22 05/06/96	UST 7 SB-351 0 - 2 06/27/95	USTs #1 through #4 SB-02 6 - 8 08/08/91	USTs #1 through #4 SB-02 10 - 12 08/08/91	USTs #1 through #4 SB-03 8 - 10 08/08/91	USTs #1 through #4 SB-03 14 - 16 08/08/91	USTs #1 through #4 SB-04 6 - 8 08/31/91	USTs #1 through #4 SB-04 14 - 16 08/31/91
Semivolatile Organics														
1,2,3,4-Tetrachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,5-Tetrachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4,5-Tetrachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	<0.37	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	<0.0057	<0.0059	<3.7	<3.4	<1.6	<0.0060	<0.0061	NA	NA	NA	NA	NA	NA	NA
1,2-Dinitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	<0.0057	<0.0059	<3.7	<3.4	<1.6	<0.0060	<0.0061	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	<0.0057	<0.0059	<3.7	<3.4	<1.6	<0.0060	<0.0061	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	NA	NA	NA	NA	NA	NA	NA	<0.37	NA	NA	NA	NA	NA	NA
2,3,4,6-Tetrachlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,5,6-Tetrachlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA	<0.37	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA	<0.37	NA	NA	NA	NA	NA	NA
2,4-Diaminotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	NA	NA	NA	NA	NA	NA	NA	<0.37	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	NA	NA	NA	NA	NA	NA	NA	<0.37	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	NA	NA	NA	NA	NA	NA	NA	<1.8	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	NA	NA	NA	NA	NA	NA	NA	<0.37	NA	NA	NA	NA	NA	NA
2,6-Dichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	NA	NA	NA	NA	NA	NA	NA	<0.37	NA	NA	NA	NA	NA	NA
2-Acetylaminofluorene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	NA	NA	NA	NA	NA	NA	NA	<0.37	NA	NA	NA	NA	NA	NA
2-Chlorophenol	NA	NA	NA	NA	NA	NA	NA	<0.37	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	NA	NA	NA	NA	NA	NA	NA	<0.37	NA	NA	NA	NA	NA	NA
2-Methylphenol	NA	NA	NA	NA	NA	NA	NA	<0.37	NA	NA	NA	NA	NA	NA
2-Naphthylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	<1.8	NA	NA	NA	NA	NA	NA
2-Nitrophenol	NA	NA	NA	NA	NA	NA	NA	<0.37	NA	NA	NA	NA	NA	NA
2-Picoline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	NA	NA	NA	NA	NA	NA	NA	<0.74	NA	NA	NA	NA	NA	NA
3,3'-Dimethylbenzidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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SUMMARY OF SEMIVOLATILE ORGANIC COMPOUNDS SOIL ANALYTICAL RESULTS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	UST 7 BBL-SB2 8 - 10 05/07/96	UST 7 BBL-SB3 6 - 8 05/07/96	UST 7 BBL-SB3 8 - 10 05/07/96	UST 7 BBL-SB4 0 - 2 05/07/96	UST 7 BBL-SB4 8 - 10 05/07/96	UST 7 BBL-SB5 0 - 2 05/06/96	UST 7 BBL-SB5 20 - 22 05/06/96	UST 7 SB-351 0 - 2 06/27/95	USTs #1 through #4 SB-02 6 - 8 08/08/91	USTs #1 through #4 SB-02 10 - 12 08/08/91	USTs #1 through #4 SB-03 8 - 10 08/08/91	USTs #1 through #4 SB-03 14 - 16 08/08/91	USTs #1 through #4 SB-04 6 - 8 08/31/91	USTs #1 through #4 SB-04 14 - 16 08/31/91
Semivolatile Organics														
3-Methylcholanthrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	<1.8	NA	NA	NA	NA	NA	NA
4,4'-Methylene-bis(2-chloroaniline)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	NA	NA	NA	<1.8	NA	NA	NA	NA	NA	NA
4-Aminobiphenyl	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	NA	NA	NA	NA	NA	NA	NA	<0.37	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	NA	NA	NA	NA	NA	NA	NA	<0.37	NA	NA	NA	NA	NA	NA
4-Chloroaniline	NA	NA	NA	NA	NA	NA	NA	<0.37	NA	NA	NA	NA	NA	NA
4-Chlorobenzilate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	NA	NA	NA	NA	NA	NA	NA	<0.37	NA	NA	NA	NA	NA	NA
4-Methylphenol	NA	NA	NA	NA	NA	NA	NA	<0.37	NA	NA	NA	NA	NA	NA
4-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	<1.8	NA	NA	NA	NA	NA	NA
4-Nitrophenol	NA	NA	NA	NA	NA	NA	NA	<1.8	NA	NA	NA	NA	NA	NA
4-Nitroquinoline-1-oxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Phenylenediamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a,a'-Dimethylphenethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	NA	NA	NA	<0.37	<0.067	<0.067	<0.67	<0.067	<2.7	<0.033
Acenaphthylene	NA	NA	NA	NA	NA	NA	NA	<0.37	<0.033	<0.033	<0.33	<0.033	<1.3	<0.017
Acetophenone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	NA	NA	<0.37	<0.033	<0.033	<0.33	<0.033	<1.3	<0.017
Aramite	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA	NA	<0.37	<0.067	<0.067	0.73	<0.067	<2.7	<0.033
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	NA	<0.37	<0.067	<0.067	<0.67	<0.067	<2.7	<0.033
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA	<0.37	<0.067	<0.067	<0.67	<0.067	<2.7	<0.033
Benzo(g,h,i)perylene	NA	NA	NA	NA	NA	NA	NA	<0.37	<0.17	<0.17	<1.7	<0.17	<6.7	<0.083
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA	NA	<0.37	<0.067	<0.067	<0.67	<0.067	<2.7	<0.033
Benzoic Acid	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	NA	NA	NA	NA	NA	NA	NA	<0.37	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	NA	NA	NA	NA	NA	NA	NA	<0.37	NA	NA	NA	NA	NA	NA
bis(2-Chloroisopropyl)ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	UST 7 BBL-SB2 8 - 10 05/07/96	UST 7 BBL-SB3 6 - 8 05/07/96	UST 7 BBL-SB3 8 - 10 05/07/96	UST 7 BBL-SB4 0 - 2 05/07/96	UST 7 BBL-SB4 8 - 10 05/07/96	UST 7 BBL-SB5 0 - 2 05/06/96	UST 7 BBL-SB5 20 - 22 05/06/96	UST 7 SB-351 0 - 2 06/27/95	USTs #1 through #4 SB-02 6 - 8 08/08/91	USTs #1 through #4 SB-02 10 - 12 08/08/91	USTs #1 through #4 SB-03 8 - 10 08/08/91	USTs #1 through #4 SB-03 14 - 16 08/08/91	USTs #1 through #4 SB-04 6 - 8 08/31/91	USTs #1 through #4 SB-04 14 - 16 08/31/91
Semivolatile Organics														
bis(2-Ethylhexyl)phthalate	NA	NA	NA	NA	NA	NA	NA	0.082	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	NA	NA	NA	NA	NA	<0.37	NA	NA	NA	NA	NA	NA
Caprolactam	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	NA	NA	<0.37	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA	NA	<0.37	<0.067	<0.067	1.6	<0.067	<2.7	<0.033
Diallate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	NA	NA	NA	NA	NA	NA	NA	<0.37	<0.17	<0.17	<1.7	<0.17	<6.7	<0.083
Dibenzofuran	NA	NA	NA	NA	NA	NA	NA	<0.37	NA	NA	NA	NA	NA	NA
Diethylphthalate	NA	NA	NA	NA	NA	NA	NA	<0.37	NA	NA	NA	NA	NA	NA
Dimethylphthalate	NA	NA	NA	NA	NA	NA	NA	<0.37	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	NA	NA	NA	NA	NA	NA	NA	3.8	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	NA	NA	NA	NA	NA	NA	NA	<0.37	NA	NA	NA	NA	NA	NA
Diphenylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methanesulfonate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA	NA	<0.37	<0.033	<0.033	<0.33	<0.033	<1.3	<0.017
Fluorene	NA	NA	NA	NA	NA	NA	NA	<0.37	<0.067	<0.067	<0.67	<0.067	3.8	<0.033
Hexachlorobenzene	NA	NA	NA	NA	NA	NA	NA	<0.37	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	NA	NA	NA	NA	NA	NA	NA	<0.37	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	NA	NA	<0.37	NA	NA	NA	NA	NA	NA
Hexachloroethane	NA	NA	NA	NA	NA	NA	NA	<0.37	NA	NA	NA	NA	NA	NA
Hexachlorophene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA	NA	<0.37	<0.17	<0.17	<1.7	<0.17	<6.7	<0.083
Isophorone	NA	NA	NA	NA	NA	NA	NA	<0.37	NA	NA	NA	NA	NA	NA
Isosafrole	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Methanesulfonate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA	NA	<0.37	<0.033	<0.033	<0.33	<0.033	<1.3	<0.017
Nitrobenzene	NA	NA	NA	NA	NA	NA	NA	<0.37	NA	NA	NA	NA	NA	NA
N-Nitrosodiethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-butylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	NA	NA	NA	NA	NA	NA	NA	<0.37	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	NA	NA	NA	NA	NA	NA	NA	<0.37	NA	NA	NA	NA	NA	NA
N-Nitrosomethylethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE I-2

SUMMARY OF SEMIVOLATILE ORGANIC COMPOUNDS SOIL ANALYTICAL RESULTS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	UST 7 BBL-SB2 8 - 10 05/07/96	UST 7 BBL-SB3 6 - 8 05/07/96	UST 7 BBL-SB3 8 - 10 05/07/96	UST 7 BBL-SB4 0 - 2 05/07/96	UST 7 BBL-SB4 8 - 10 05/07/96	UST 7 BBL-SB5 0 - 2 05/06/96	UST 7 BBL-SB5 20 - 22 05/06/96	UST 7 SB-351 0 - 2 06/27/95	USTs #1 through #4 SB-02 6 - 8 08/08/91	USTs #1 through #4 SB-02 10 - 12 08/08/91	USTs #1 through #4 SB-03 8 - 10 08/08/91	USTs #1 through #4 SB-03 14 - 16 08/08/91	USTs #1 through #4 SB-04 6 - 8 08/31/91	USTs #1 through #4 SB-04 14 - 16 08/31/91
Semivolatile Organics														
o-Toluidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	NA	NA	NA	NA	NA	NA	NA	<1.8	NA	NA	NA	NA	NA	NA
Phenacetin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA	NA	<0.37	<0.033	<0.033	5.2	<0.033	23	<0.017
Phenol	NA	NA	NA	NA	NA	NA	NA	<0.37	NA	NA	NA	NA	NA	NA
Pronamide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA	<0.37	<0.033	<0.033	1.3	<0.033	2.3	<0.017
Pyridine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Safrole	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfotep	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Methylphenols	NA	NA	NA	NA	NA	NA	NA	<0.37	NA	NA	NA	NA	NA	NA

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TABLE I-3
SUMMARY OF SOIL INORGANIC RESULTS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	Units	Soil Saturation Concentration Screening Levels CSAT	Groundwater Contact Protection GCCP	Groundwater Surface Water Interface Protection GSIP	Industrial Direct Contact IDC	Industrial Drinking Water Protection IDWP	Industrial Particulate Soil Inhalation Criteria IPSIC	Industrial Soil Volatilization to Indoor Air Inhalation ISVIA	Finite VSIC for 2 Meter Source Thickness IVSIC2	Finite VSIC for 5 Meter Source Thickness IVSIC5	Infinite Source Volatile Soil Inhalation Criteria IVSICI	Residential Drinking Water Protection RDWP	Minimum Criteria
Inorganics													
Aluminum	mg/kg		1000000		370000	6900						6900	6900
Antimony	mg/kg		49000	94	670	4.3	5900					4.3	4.3
Arsenic	mg/kg		2000	70	37	5.8	910					5.8	5.8
Barium	mg/kg		1000000	780	130000	1300	150000					1300	780
Beryllium	mg/kg		1000000	330	1600	51	590					51	51
Cadmium	mg/kg		230000	5.4	2100	6	2200					6	5.4
Calcium	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA
Chromium Total	mg/kg		140000	18	9200	30	240					30	18
Chromium VI (Hexavalent)	mg/kg		140000	18	9200	30	240					30	18
Cobalt	mg/kg		48000	6.8	9000	6.8	5900					6.8	6.8
Copper	mg/kg		1000000	120	73000	5800	59000					5800	120
Cyanide (total)	mg/kg		250	0.39	250	4	250					4	0.39
Iron	mg/kg		1000000		580000	12000						12000	12000
Lead	mg/kg			5000	900	700	44000					700	700
Lead - Coarse Fraction	mg/kg			5000	900	700	44000					700	700
Lead - Fine Fraction	mg/kg			5000	900	700	44000					700	700
Lead - Total (Calculated by fine/coarse fraction)	mg/kg			5000	900	700	44000					700	700
Magnesium	mg/kg		1000000		1000000	22000	2900000					8000	8000
Manganese	mg/kg		180000	440	90000	440	1500					440	440
Mercury	mg/kg		47	0.13	580	1.7	8800	89	62	62	62	1.7	0.13
Nickel	mg/kg		1000000	120	150000	100	16000					100	100
Potassium	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA
Selenium	mg/kg		78000	0.41	9600	4	59000					4	0.41
Silver	mg/kg		200000	1	9000	13	2900					4.5	1.0
Sodium	mg/kg		1000000		1000000	7000						2500	2500
Sulfide	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA
Thallium	mg/kg		15000	4.2	130	2.3						2.3	2.3
Tin	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA
Vanadium	mg/kg		1000000	190	5500	990						72	72
Zinc	mg/kg		1000000	260	630000	5000						2400	260

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TABLE I-3

SUMMARY OF SOIL INORGANIC RESULTS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	Screening Level	Maximum Detection	Maximum Concentration Exceeds Screening Level?	CTC Parking Lot PL-1 0.75 - 1.21 08/10/01	CTC Parking Lot PL-2 0.75 - 1.67 08/10/01	CTC Parking Lot PL-3 0.67 - 1.67 08/10/01	CTC Parking Lot PL-4 0.75 - 1.5 08/10/01	CTC Parking Lot VE-1 0.75 - 1.58 08/10/01	CTC Parking Lot VE-2 0.92 - 1.67 08/10/01	Drum Remediation/ Wetland Area MW-126WT 14 - 16 02/08/95	Drum Remediation/ Wetland Area WMB-1 3 - 3.5 01/22/97	Drum Remediation/ Wetland Area WMB-2 3 - 3.5 01/22/97
Inorganics												
Aluminum	6900	20900	Yes	20,900	13,600 [14,900]	4,300	6,100	1,200	5,400	NA	5,120	8,300
Antimony	4.3	22.3	Yes	<2.50	1.30 [1.40]	1.8	1.2	<0.500	1	<0.286	<0.295	1.46
Arsenic	5.8	23.6	Yes	9.7	2.90 [3.00]	3.2	4	1.6	4.7	2.33	2.25	3.68
Barium	780	247	No	180	110 [110]	140	58	9.2	67	64.6	37.9	145
Beryllium	51	0.912	No	<0.200	<0.200 [<0.200]	<0.200	<0.200	<0.200	<0.200	0.686	<0.590	<0.707
Cadmium	5.4	6.38	Yes	<0.500	<0.100 [<0.100]	<0.100	0.66	<0.100	0.51	0.0783	0.0743	0.509
Calcium	NA	275000	Yes/NA	83,300	68,900 [87,900]	67,700	13,000	192,000	16,000	NA	5,750	85,600
Chromium Total	18	1110	Yes	190	110 [110]	200	40	4.9	28	23.8	7.96	49.5
Chromium VI (Hexavalent)	18	ND	No/ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	6.8	143	Yes	61	27.0 [26.0]	19	74	120	94	9.37	<5.90	<7.07
Copper	120	44700	Yes	100	34.0 [31.0]	36	62	6.7	74	13.9	5.84	104
Cyanide (total)	0.39	2.70	Yes	<0.500	<0.500 [1.10]	<0.500	<0.500	<0.500	<0.500	<0.290	<0.180	<0.210
Iron	12000	87400	Yes	85,400	28,100 [35,200]	50,000	27,900	6,900	16,900	NA	6,280	44,600
Lead	700	1780	Yes	6.6	11.0 [12.0]	7.7	74	10	120	5.33	3.66	233
Lead - Coarse Fraction	700	143	No	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Fine Fraction	700	364	No	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Total (Calculated by fine/coarse fraction)	700	217	No	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	8000	20200	Yes	9,100	5,800 [7,700]	1,800	700	3,400	3,000	NA	1,650	6,940
Manganese	440	26600	Yes	11,600	6,600 [7,700]	10,700	1,800	150	1,300	NA	204	1,170
Mercury	0.13	0.69	Yes	NA	<0.100 [<0.100]	<0.100	<0.100	<0.100	<0.100	<0.0572	<0.0590	<0.0707
Nickel	100	3400	Yes	80	22.0 [22.0]	24	34	3,400	51	20.9	5.28	20.5
Potassium	NA	12100	Yes/NA	2,600	1,600 [1,800]	2,400	980	<500	660	NA	827	12,100
Selenium	0.41	4.31	Yes	<2.50	<2.50 [<2.50]	<2.50	<0.500	<0.500	0.96	<0.286	<0.295	<0.707
Silver	1.0	1.38	Yes	<2.50	<2.50 [<2.50]	<2.50	<0.500	<0.500	<0.500	<0.286	<0.295	<0.353
Sodium	2500	5390	Yes	780	390 [360]	870	380	200	180	NA	<590	925
Sulfide	NA	ND	No/ND	NA	NA	NA	NA	NA	NA	<57.0	NA	NA
Thallium	2.3	5.90	Yes	<5.00	<5.00 [<5.00]	<5.00	3.6	1.8	3.4	<0.286	<0.295	0.883
Tin	NA	ND	No/ND	NA	NA	NA	NA	NA	NA	<114	NA	NA
Vanadium	72	45.0	No	45	28.0 [31.0]	38	12	4.2	12	34.1	11.6	21.7
Zinc	260	5560	Yes	16	19.0 [20.0]	25	330	18	150	31.6	14.7	255

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TABLE I-3

SUMMARY OF SOIL INORGANIC RESULTS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	Drum Remediation/ Wetland Area WMB-3 5 - 5.5 01/22/97	Drum Remediation/ Wetland Area WMB-4 0.5 - 1 01/22/97	Drum Remediation/ Wetland Area WMB-5 0.5 - 1 01/22/97	Drum Remediation/ Wetland Area WMB-6 4 - 4.5 01/22/97	Green Point Landfill SB-389 0 - 0.5 08/11/00	Green Point Landfill SB-390 0 - 0.5 08/11/00	Green Point Landfill SB-391 0 - 0.5 08/11/00	Green Point Landfill SB-392 0 - 0.5 08/11/00	Green Point Landfill SB-393 0 - 0.5 08/11/00	Green Point Landfill SB-394 0 - 0.5 08/11/00	Green Point Landfill SB-395 0 - 0.5 08/11/00	Green Point Landfill SB-396 0 - 0.5 08/11/00
Inorganics												
Aluminum	4,480	14,700	9,990	7,200	8,760	7,680	6,200	6,930	10,700	5,940	7,810	11,500
Antimony	<0.303	0.536	<0.346	<0.340	<7.00	<10.5	<8.50	<8.10	0.83	<8.10	<8.10	<11.0
Arsenic	1.68	5.8	6.9	4.83	6	4.2	3.5	3.4	3.6	2.6	7.5	6
Barium	28.8	98.8	69.9	58.7	57.5	55.1	51.1	50.5	95.6	41.7	62	61.9
Beryllium	<0.606	<0.717	<0.692	<0.681	<0.580	<0.870	<0.710	<0.680	<0.670	<0.670	<0.670	<0.920
Cadmium	0.0787	0.341	0.305	0.123	<0.580	<0.870	0.14	<0.680	<0.670	<0.670	<0.670	<0.920
Calcium	7,250	18,000	17,300	51,900	13,000	7,070	5,030	47,400	72,800	2,880	17,200	16,100
Chromium Total	7.73	22.6	16.4	11.3	44.5	12.9	11.6	13.1	184	10	14.1	28.2
Chromium VI (Hexavalent)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	<6.06	<7.17	<6.92	7.82	3.2	3.4	3.3	4.2	3.1	3	4.9	4.4
Copper	6.16	18	13.4	6.28	30	12.7	13.4	10.7	501	6.2	11.7	28.3
Cyanide (total)	<0.180	<0.220	<0.210	<0.200	0.33	<0.870	<0.710	<0.680	2.7	<0.670	<0.670	<0.920
Iron	6,800	14,300	12,000	11,900	27,000	9,340	8,210	10,600	29,100	8,390	13,200	28,000
Lead	4.11	13.4	12.4	4.43	20.9	11.9	10.4	9.3	64.5	7.6	12.2	27.8
Lead - Coarse Fraction	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Fine Fraction	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Total (Calculated by fine/coarse fraction)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	2,100	6,860	6,320	12,800	1,670	3,170	2,690	12,500	3,170	1,640	7,820	5,940
Manganese	114	299	351	323	1930	151	125	208	7840	61.1	392	404
Mercury	<0.0606	0.0772	<0.0692	<0.0681	0.017	0.037	0.034	0.033	0.017	0.015	0.037	<0.180
Nickel	5.03	14.5	11.4	11.1	14.5	10.3	10	11.9	9.4	7.7	11.7	20.1
Potassium	721	2,540	1,650	1,320	1,230	1,100	1,010	1,290	1,160	708	1,360	1,210
Selenium	<0.303	<0.359	<0.346	<0.340	2.1	1.1	0.61	0.63	1.1	<0.670	0.74	1.9
Silver	<0.303	<0.359	<0.346	<0.340	<1.20	<1.70	<1.40	<1.40	0.55	<1.30	<1.30	<1.80
Sodium	<606	<717	<692	<681	149	134	<709	332	548	179	<672	426
Sulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	<0.303	<0.359	<0.346	<0.340	3.6	0.91	<1.40	1.1	2.3	<1.30	<1.30	1.9
Tin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	9.64	32.2	23.4	21.9	14.3	16.9	14.2	17.5	26.1	13.9	18	13
Zinc	24.3	52.8	44.2	23.3	41.9	35.4	33.7	27.9	103	20.3	38.8	432

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TABLE I-3

SUMMARY OF SOIL INORGANIC RESULTS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area
Location ID	SB-397	SB-398	SB-399	SB-400	SB-406	SB-412	SB-418	SB-01A	SB-01A	SB-350	SB-362	SB-362
Sample Depth (ft bgs):	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	1 - 3	5 - 7	4 - 6	0 - 2	4 - 6
Date Collected:	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/23/01	08/23/01	06/27/95	09/28/95	09/28/95
Inorganics												
Aluminum	8,550	5,580	6,070	6,350	7,940	13,400	10,400 [8,960]	2,490	2,120	10,500	7120	3030
Antimony	<8.40	<7.30	<7.50	<9.60	0.6	<10.6	<7.90 [<8.30]	<6.40	<6.40	<0.560	9.16	4.27
Arsenic	5.1	5	3.7	4.6	3.9	6.8	6.80 [7.50]	1.6	2.3	3.8	3.62	23.6
Barium	45	37.6	55.4	53.4	56.4	89.9	69.4 [67.2]	14	10.2	76.1	74.1	38.3
Beryllium	<0.700	<0.610	<0.620	<0.800	<0.540	<0.880	<0.660 [<0.690]	<0.530	<0.530	0.2	<0.587	<0.542
Cadmium	<0.700	<0.610	<0.620	<0.800	<0.540	0.28	0.220 [0.200]	0.051	0.063	0.67	0.128	0.0336
Calcium	12,300	2,160	23,000	12,500	35,500	25900	24,700 [22,900]	10,800	4,160	27,700	35400	15600
Chromium Total	17.6	10.1	83.7	12.6	32.9	24.4	17.9 [15.9]	7.1	43.1	78.4	52.1	109
Chromium VI (Hexavalent)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	3.7	3.8	3	4.6	4	7.8	5.90 [5.60]	1.4	2	7.7	7.05	12.6
Copper	12.6	365	15.1	12.6	25.8	21.9	14.5 [13.6]	5.8	15.8	63.4	204	661
Cyanide (total)	<0.700	<0.610	<0.620	<0.800	0.35	<0.880	<0.660 [<0.690]	<0.530	<0.530	0.14	0.43	<0.270
Iron	17,900	10,900	18,600	10,800	22,900	21,700	15,400 [14,800]	6,810	19,900	31,400	43,300	16,200
Lead	13	20.9	37.2	12.1	30.9	17.4	12.8 [12.3]	4	3.1	9.2	1,020	93.2
Lead - Coarse Fraction	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Fine Fraction	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Total (Calculated by fine/coarse fraction)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	5,310	1,600	2,020	5,420	11,400	13200	11,800 [10,600]	2,080	646	1580	11800	787
Manganese	281	217	3550	220	678	341	373 [419]	289	192	5690	771	1240
Mercury	<0.140	0.019	0.016	0.051	<0.110	0.066	0.0480 [0.0410]	<0.110	<0.110	<0.0600	0.101	<0.0542
Nickel	13.7	16.4	9.9	11.5	15.5	21.3	15.0 [14.9]	5.4	38	13.3	63.4	105
Potassium	938	427	519	885	1,210	2,290	1,780 [1,350]	488	219	1,070	1,610	<542
Selenium	0.91	0.64	1.8	0.74	1.1	<0.880	<0.660 [<0.690]	<0.530	0.7	1.9	<0.587	<2.17
Silver	<1.40	0.37	<1.20	<1.60	<1.10	<1.80	<1.30 [<1.40]	<1.10	<1.10	1	<0.587	<2.17
Sodium	316	<608	111	177	300	<884	<656 [<695]	543	315	831	<587	<542
Sulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	1.6	<1.20	5.9	1.4	1.7	2	1.00 [1.50]	0.75	<1.10	<0.560	<0.294	<0.271
Tin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	13.1	13.4	15.3	15.1	12.3	28.3	22.8 [20.6]	5.2	5.2	24.7	19	13.8
Zinc	84.1	43	34.6	37	403	114	55.6 [53.0]	16.1	21	19.7	58.6	22.1

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TABLE I-3
SUMMARY OF SOIL INORGANIC RESULTS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	Parking Lot Area/Buffer Basin
Location ID	SB-362	SB-363	SB-363	SB-363	US-1	US-2	US-3	US-4	US-6	US-7	US-8	BH9
Sample Depth (ft bgs):	8 - 10	0 - 2	4 - 6	8 - 10	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	1 - 2
Date Collected:	09/28/95	09/28/95	09/28/95	09/28/95	06/12/95	06/12/95	06/12/95	06/12/95	06/12/95	06/12/95	06/12/95	03/06/07
Inorganics												
Aluminum	3510	5020	3080	5190	5,040	3,880	2,930	1,440	2,680	1250	2730	NA
Antimony	0.378	17.4	22.3	0.54	0.405	0.5	0.556	0.721	0.624	0.319	0.574	<0.170
Arsenic	3.7	4.67	4.11	1.05	4.54	3.7	2.82	1.94	9.59	2.17	2.41	2.9
Barium	32.2	112	51.6	42.8	46.7	40.6	24.3	21.1	35.3	8.92	27.7	40.3
Beryllium	<0.627	<0.558	<0.550	<0.612	<0.629	<0.538	<0.526	<0.528	<0.516	<0.513	<0.507	<0.170
Cadmium	0.125	0.379	0.119	0.0441	0.157	0.141	0.1	0.27	0.225	0.418	0.288	0.22
Calcium	8650	49000	73600	12800	13300	12100	21900	275000	19400	34100	11900	NA
Chromium Total	8.96	77	147	11.8	49.5	18.6	15.3	30	38.7	8.87	31.8	18.9
Chromium VI (Hexavalent)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	<6.27	6.96	<5.50	<6.12	<6.29	<5.38	<5.26	<5.28	<5.16	<5.13	<5.07	2.7
Copper	6.19	202	44,700	7.76	20.3	14.2	18.6	18.7	28.2	11	22.9	41
Cyanide (total)	<0.310	0.77	0.81	<0.310	<0.310	<0.270	<0.260	<0.260	<0.260	<0.260	<0.250	NA
Iron	8,360	34,900	43,100	10,700	9,970	11,600	11,300	16,900	18,800	6,570	19,600	NA
Lead	13.2	1,320	1,780	26.5	16.4	14.7	13	33.5	49.2	12.6	40.8	31
Lead - Coarse Fraction	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Fine Fraction	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Total (Calculated by fine/coarse fraction)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	4630	5730	8400	7740	16,300	10,600	8,680	7,090	5,430	7,420	12,600	NA
Manganese	130	1270	452	210	358	399	375	267	985	171	693	965
Mercury	<0.0627	0.0616	<0.0550	<0.0612	<0.0629	<0.0538	<0.0526	<0.0528	<0.0516	<0.0513	<0.0507	<0.0430
Nickel	8.18	104	55.7	10.3	11.9	13.1	15.1	47.5	28.4	17.7	29.6	12.8
Potassium	<627	901	<550	809	871	600	543	<528	<516	<513	<507	NA
Selenium	<0.314	<0.558	<0.550	<0.306	<0.314	<0.269	<0.263	<0.528	<0.258	<0.256	<0.253	0.2
Silver	<0.314	<0.558	1.38	<0.306	<0.629	<0.538	<0.526	<0.264	<0.258	<0.256	<0.253	0.055
Sodium	<627	<558	<550	<612	<629	<538	<526	<528	<516	<513	<507	NA
Sulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	<0.314	<0.279	<0.275	<0.306	<0.314	<0.269	<0.263	<0.264	<0.258	<0.256	<0.253	0.033
Tin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	10.7	14.6	7.46	12.1	16	13.1	10.7	5.01	8.56	4.1	7.04	9.3
Zinc	17.2	108	5,560	17.5	49.1	38.7	24.7	54.3	51.8	58.6	61.8	38.2

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TABLE I-3
SUMMARY OF SOIL INORGANIC RESULTS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area	Parking Lot Area/Buffer Basin	Parking Lot Area/Buffer Basin	Parking Lot Area/Buffer Basin	Parking Lot Area/Buffer Basin	Previous Metal Feedstock	Previous Metal Feedstock	Previous Metal Feedstock	Previous Metal Feedstock	Previous Metal Feedstock	Previous Metal Feedstock	Previous Metal Feedstock
Location ID	BH9	BH10	BH10	SB-354	BH10	BH10	FS-1	FS-2	FS-3	FS-4	FS-5
Sample Depth (ft bgs):	2 - 4	1 - 2	2 - 4	0 - 2	0 - 2	2 - 4	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1
Date Collected:	03/06/07	03/06/07	03/06/07	06/28/95	03/06/07	03/06/07	06/12/95	06/12/95	06/12/95	06/12/95	06/12/95
Inorganics											
Aluminum	NA	NA	NA	2,780	NA	NA	2,390	2,920	4,400	5,630	5,350
Antimony	<0.190	<0.180	<0.170	0.55	<0.180	<0.170	0.953	0.67	0.581	<0.558	<0.538
Arsenic	2.3	3.2	1.2	3.5	3.2	1.2	2.78	4.24	2.44	3.3	1.49
Barium	28.7	125	184	23.5	125	184	24.2	19.9	31	29	29.8
Beryllium	0.091	<0.180	<0.170	<0.0500	<0.180	<0.170	<0.538	<0.543	<0.560	<0.558	<0.538
Cadmium	0.18	0.45	0.58	0.5	0.45	0.58	0.356	0.111	0.197	0.136	0.136
Calcium	NA	NA	NA	74,200	NA	NA	13400	31500	13300	41700	6940
Chromium Total	7.1	108	142	12.6	108	142	18.9	36.2	36.2	16.8	17.8
Chromium VI (Hexavalent)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	2.6	3.6	3.7	3.7	3.6	3.7	<5.38	<5.43	<5.60	<5.58	<5.38
Copper	11.6	26.7	37.6	33.4	26.7	37.6	46.5	27.3	18.6	15.9	13.6
Cyanide (total)	NA	NA	NA	<0.110	NA	NA	<0.270	0.86	<0.280	<0.280	<0.270
Iron	NA	NA	NA	18,600	NA	NA	28,600	34,900	15,800	12,500	12,600
Lead	10.4	7.4	7.1	7.4	7.4	7.1	35.5	9.58	21.5	7.94	6.63
Lead - Coarse Fraction	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Fine Fraction	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Total (Calculated by fine/coarse fraction)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	NA	NA	NA	5880	NA	NA	2,980	7,010	2,340	3,040	3,750
Manganese	255	9,200	11,900	474	9,200	11,900	398	330	1200	290	371
Mercury	0.019	<0.0450	<0.0420	<0.0500	<0.0450	<0.0420	0.0881	<0.0543	<0.0560	<0.0558	<0.0538
Nickel	6.5	10.5	8.8	10.4	10.5	8.8	19.4	24.6	18.5	11.9	12.4
Potassium	NA	NA	NA	412	NA	NA	<538	<543	<560	978	848
Selenium	0.21	<0.180	<0.170	<0.270	<0.180	<0.170	<0.269	0.601	<0.280	<0.558	<0.538
Silver	<0.0930	0.11	0.28	0.22	0.11	0.28	<0.269	<0.272	<0.280	<0.558	<0.538
Sodium	NA	NA	NA	991	NA	NA	<538	<543	<560	<558	<538
Sulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.059	0.046	0.031	<0.550	0.046	0.031	<0.269	<0.272	<0.280	<0.279	<0.269
Tin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	10	30.4	41	7.3	30.4	41	7.37	7.88	10.6	13.1	13.2
Zinc	13.8	18.3	17.9	14.2	18.3	17.9	73.5	32.3	53.3	29.9	26.5

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TABLE I-3
SUMMARY OF SOIL INORGANIC RESULTS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	Previous Metal Feedstock FS-6 0 - 1 06/12/95	Previous Metal Feedstock FS-7 0 - 1 06/12/95	Previous Metal Feedstock FS-8 0 - 1 06/12/95	Previous Metal Feedstock SB-304 0 - 1 02/08/95	Previous Metal Feedstock SB-304 2 - 4 02/08/95	Previous Metal Feedstock SB-304 6 - 8 02/08/95	Previous Metal Feedstock SB-305 0 - 1 02/08/95	Previous Metal Feedstock SB-305 2 - 4 02/08/95	Previous Metal Feedstock SB-305 6 - 8 02/08/95	Previous Metal Feedstock SB-305 10 - 12 02/08/95
Inorganics										
Aluminum	3,330 [3,670]	2,680	6,750	7440	8,870	3,100	4,470	11,700	3,570	NA
Antimony	0.482 [<0.256]	<0.268	<0.523	1.09	<2.65	0.571	<0.282	<2.68	<1.39	0.366
Arsenic	1.74 [1.88]	1.35	2.51	3.62	7.6	2.05	1.29	1.3	3.6	3.91
Barium	19.1 [19.4]	14.2	36.5	62.1	95.5	20.1	21.7	83.4	28	61.9
Beryllium	<0.511 [<0.511]	<0.536	<0.523	0.593	0.743	<0.626	<0.565	0.912	<0.555	<0.687
Cadmium	0.0730 [0.0844]	<0.0268	0.162	0.485	3.71	0.0595	0.0333	0.074	0.0355	0.131
Calcium	5,040 [3,740]	1470	13100	21,800	11,100	2,710	2,130	55,300	15,900	NA
Chromium Total	11.8 [12.0]	10.5	25.9	62.7	84.4	12	14.2	125	77.8	14.8
Chromium VI (Hexavalent)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	<5.11 [<5.11]	<5.36	<5.23	<5.39	7.91	<6.26	<5.65	<5.37	<5.55	<6.87
Copper	11.0 [10.2]	9.69	15.2	50.8	155	59.6	12.6	13.7	192	15.5
Cyanide (total)	<0.260 [<0.260]	<0.000270	<0.260	<0.270	0.38	<0.310	<0.280	<0.270	<0.280	<0.340
Iron	10,900 [10,000]	10,600	13,000	34,800	87,400	15,200	14,800	22,700	26,800	NA
Lead	2.91 [2.78]	2.56	10.5	39	279	37.1	3.59	18.3	23.5	9.83
Lead - Coarse Fraction	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Fine Fraction	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Total (Calculated by fine/coarse fraction)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	2,380 [2,230]	990	5,580	1,680	1,240	<626	1,410	1,840	<555	NA
Manganese	174 [280]	162	681	6,140	9,190	1,040	232	6,820	3,830	NA
Mercury	<0.0511 [<0.0511]	<0.0536	<0.0523	0.155	0.691	<0.0626	<0.0565	<0.0537	<0.0555	<0.0687
Nickel	8.02 [8.34]	7.18	14.6	14.2	35.7	5.07	7.51	3.54	88.2	12.4
Potassium	<511 [520]	<536	1,200	740	772	<626	<565	1,020	<555	NA
Selenium	<0.255 [<0.256]	<0.268	<0.523	NA	<2.65	<0.313	<0.282	<2.68	<1.39	<0.344
Silver	<0.255 [<0.511]	<0.268	<0.523	NA	<2.65	<0.313	<0.282	<2.68	<1.39	<0.344
Sodium	<511 [<511]	<536	<523	<539	5,390	<626	<565	<537	<555	NA
Sulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA	<69.0
Thallium	<0.255 [<0.256]	<0.268	<0.262	<0.270	<0.265	<0.313	<0.282	<0.268	<0.278	<0.344
Tin	NA	NA	NA	NA	NA	NA	NA	NA	NA	<137
Vanadium	8.22 [8.64]	5.89	16.1	17	16	9.71	8.87	20	9	19.9
Zinc	18.0 [19.7]	12.6	38.6	89.8	436	16.8	16.5	33.1	12.3	28.6

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TABLE I-3
SUMMARY OF SOIL INORGANIC RESULTS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	Previous Metal Feedstock SB-352 0 - 2 06/28/95	Previously Proposed Type III Landfill Area TP1 0 - 4 05/22/98	Previously Proposed Type III Landfill Area TP1 4 - 8 05/22/98	Previously Proposed Type III Landfill Area TP2 0 - 4 05/22/98	Previously Proposed Type III Landfill Area TP2 4 - 8 05/22/98	Previously Proposed Type III Landfill Area TP3 0 - 4 05/22/98	Previously Proposed Type III Landfill Area TP3 4 - 8 05/22/98	Previously Proposed Type III Landfill Area TP4 0 - 4 05/22/98	Previously Proposed Type III Landfill Area TP4 4 - 8 05/22/98
Inorganics									
Aluminum	4,100	4,910	5,490	6,320	4,860	4,160	4,380	4,390	4,630
Antimony	1.1	<6.00	<6.00	<6.00	<6.00	<6.00	<6.00	<6.00	<6.00
Arsenic	5.8	2.1	2.2	2.7	2.8	2.1	2	2.1	2.3
Barium	51.3	30	24.5	38.8	43.2	21.6	21.9	30.1	28.3
Beryllium	<0.0600	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500
Cadmium	1.4	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500
Calcium	62,000	5,540	4,810	7,230	2,650	3,150	3,410	2,170	2,980
Chromium Total	43.8	16.6	13.9	16.2	13.4	9.9	9.9	13.1	13
Chromium VI (Hexavalent)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	10.1	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Copper	74.2	16.1	9	10.1	9	7.6	7.6	10.2	8.1
Cyanide (total)	<0.110	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500
Iron	40,900	15400	13,200	15,900	14,400	11,100	11,100	12,900	13,500
Lead	74.6	11.6	10.5	6.7	8.1	8.4	9.8	11.1	6.1
Lead - Coarse Fraction	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Fine Fraction	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Total (Calculated by fine/coarse fraction)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	1640	1610	1,470	3,160	1,590	1,160	1,180	1,320	1,380
Manganese	1120	1190	272	316	247	220	226	280	198
Mercury	0.3	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
Nickel	23.3	13.6	10.2	10.6	8.9	7.2	6.9	8.7	8.5
Potassium	603	NA	<500	535	<500	<500	<500	<500	<500
Selenium	<0.280	<0.500	0.72	1	<0.500	<0.500	<0.500	<0.500	<0.500
Silver	0.66	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Sodium	896	<500	<500	<500	<500	<500	<500	<500	<500
Sulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	<0.560	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Tin	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	10.6	6.2	5.9	8.3	6.8	5.5	5.4	6.6	6.8
Zinc	88.6	231	118	145	104	112	130	263	138

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TABLE I-3
SUMMARY OF SOIL INORGANIC RESULTS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	Previously Proposed Type III Landfill Area TP5 0 - 4 05/22/98	Previously Proposed Type III Landfill Area TP5 4 - 8 05/22/98	Previously Proposed Type III Landfill Area TP6 0 - 4 05/22/98	Previously Proposed Type III Landfill Area TP6 4 - 8 05/22/98	Previously Proposed Type III Landfill Area TP7 0 - 4 05/22/98	Primary Settling Pond BH7 0 - 2 03/06/07	Primary Settling Pond BH7 2 - 4 03/06/07	Primary Settling Pond BH8 0 - 2 03/06/07	Primary Settling Pond BH8 2 - 4 03/06/07	Primary Settling Pond NS-1 0 - 14 06/23/95
Inorganics										
Aluminum	4,090	4,380	6,600	5,150	7,100	NA	NA	NA	NA	13,100
Antimony	<6.00	<6.00	<6.00	<6.00	<6.00	<0.180	<0.210	<0.170	<0.190	<0.739
Arsenic	2	2.4	3	2.4	3.7	2.30	2.90	1.40	1.30	5.1
Barium	30.7	30	42.7	32.8	44.1	39.4	49.8	18.2	16.3	128
Beryllium	<0.500	<0.500	<0.500	<0.500	<0.500	0.056	0.430	0.095	<0.190	0.739
Cadmium	<0.500	<0.500	<0.500	<0.500	<0.500	0.190	0.270	0.150	0.130	0.464
Calcium	2,260	3,220	3,800	2,230	4,460	NA	NA	NA	NA	29400
Chromium Total	12.6	14.5	17.7	12.5	28.7	26.3	13.7	11.9	14.3	24.2
Chromium VI (Hexavalent)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	<5.00	<5.00	<5.00	<5.00	<5.00	4.80	3.40	1.30	1.40	9.69
Copper	14.2	9.4	14.7	8.2	25.8	15.8	13.8	7.00	7.70	18.8
Cyanide (total)	<0.500	<0.500	<0.500	<0.500	<0.500	NA	NA	NA	NA	<0.370
Iron	13,600	13,800	18,100	13,100	23,400	NA	NA	NA	NA	19000
Lead	10.7	11.4	13.7	6.4	15.2	8.00	21.4	5.90	4.50	13.7
Lead - Coarse Fraction	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Fine Fraction	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Total (Calculated by fine/coarse fraction)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	1,260	1,390	1,940	1,520	2,160	NA	NA	NA	NA	15,200
Manganese	250	207	410	248	424	388	370	163	160	335
Mercury	<0.100	<0.100	<0.100	<0.100	<0.100	<0.0440	<0.0540	<0.0430	<0.0480	<0.0739
Nickel	8.7	10	10.6	7.4	17.3	19.0	10.3	7.80	9.80	24.3
Potassium	<500	<500	<500	<500	<500	NA	NA	NA	NA	1,870
Selenium	<0.500	<0.500	<0.500	<0.500	<0.500	<0.180	0.500	0.250	0.15	<0.739
Silver	<1.00	<1.00	<1.00	<1.00	<1.00	0.067	0.130	0.046	0.037	<0.739
Sodium	<500	<500	<500	<500	<500	NA	NA	NA	NA	<739
Sulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	<1.00	<1.00	<1.00	<1.00	<1.00	0.065	0.062	0.047	0.031	<0.370
Tin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	5.4	6.3	7.9	7.4	8.3	12.7	8.50	4.90	5.10	32.3
Zinc	409	505	351	164	555	81.9	43.6	255	96.5	61.2

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TABLE I-3
SUMMARY OF SOIL INORGANIC RESULTS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	Railyard Area BH11 0 - 2 03/06/07	Railyard Area BH11 2 - 4 03/06/07	Railyard Area BH12 0 - 2 03/06/07	Railyard Area BH12 2 - 4 03/06/07	Railyard Area NS-RS-4 2.5 - 3 06/13/95	Railyard Area RS-1 0 - 1 06/13/95	Railyard Area RS-2 0 - 1 06/13/95	Railyard Area RS-2-1 0 - 1 06/10/96	Railyard Area RS-2-2 0 - 1 06/10/96	Railyard Area RS-2-3 0 - 1 06/10/96	Railyard Area RS-2-4 0 - 1 06/10/96
Inorganics											
Aluminum	NA	NA	NA	NA	NA	3,870	6,630	NA	NA	NA	NA
Antimony	0.29	<0.190	0.190 [0.840]	0.13	<1.27	1.12	5.89	NA	NA	NA	NA
Arsenic	3.7	5	4.40 [5.10]	2.2	7.04	3.04	11.8	NA	NA	NA	NA
Barium	69.2	68.4	158 [95.7]	135	62.2	44.4	247	NA	NA	NA	NA
Beryllium	<0.180	0.24	<0.180 [<0.180]	<0.180	<0.633	<0.526	0.543	NA	NA	NA	NA
Cadmium	1.3	0.19	3.30 [1.60]	0.32	0.158	0.747	6.38	NA	NA	NA	NA
Calcium	NA	NA	NA	NA	NA	7750	31300	NA	NA	NA	NA
Chromium Total	95.8	21.6	918 [572]	137	22.2	60.3	1,110	NA	NA	NA	NA
Chromium VI (Hexavalent)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	11.5	8.4	111 [38.7]	1.9	<6.33	8.52	143	NA	NA	NA	NA
Copper	117	13.6	387 [120]	10.9	12.1	53.4	274	NA	NA	NA	NA
Cyanide (total)	NA	NA	NA	NA	<0.320	<0.260	<0.270	NA	NA	NA	NA
Iron	NA	NA	NA	NA	NA	45,400	12,000	NA	NA	NA	NA
Lead	93.2	11	189 [77.7]	8.8	6.29	97.9	530	279	237	335	456
Lead - Coarse Fraction	143	NA	229 [48.2]	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Fine Fraction	364	NA	731 [78.0]	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Total (Calculated by fine/coarse fraction)	217	NA	400 [56.8]	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	NA	NA	NA	NA	NA	1,340	6,580	NA	NA	NA	NA
Manganese	2,540	191	7,380 [6,770]	7,470	NA	955	3320	NA	NA	NA	NA
Mercury	0.1	0.027	0.970 [0.220]	<0.0440	<0.0633	0.109	0.546	NA	NA	NA	NA
Nickel	64.9	23	787 [384]	5.1	17.5	47.5	1,010	NA	NA	NA	NA
Potassium	NA	NA	NA	NA	NA	<526	944	NA	NA	NA	NA
Selenium	0.21	<0.190	<0.180 [<0.180]	<0.180	<1.27	1.6	4.31	NA	NA	NA	NA
Silver	0.21	0.1	0.220 [1.20]	0.081	<1.27	<0.526	<1.36	NA	NA	NA	NA
Sodium	NA	NA	NA	NA	NA	<526	<543	NA	NA	NA	NA
Sulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.053	0.13	0.0200 [0.0270]	0.012	<0.317	<0.263	<0.272	NA	NA	NA	NA
Tin	NA	NA	NA	NA	<127	NA	NA	NA	NA	NA	NA
Vanadium	11.5	26.5	33.9 [26.0]	22	26.9	10.4	32.1	NA	NA	NA	NA
Zinc	473	48	355 [421]	20.2	37	256	2,630	NA	NA	NA	NA

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SUMMARY OF SOIL INORGANIC RESULTS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	Railyard Area RS-2-5 0 - 1 06/10/96	Railyard Area RS-2-6 0 - 1 06/10/96	Railyard Area RS-2-7 0 - 1 06/10/96	Railyard Area RS-2-8 0 - 1 06/10/96	Railyard Area RS-2A 0 - 1 08/26/05	Railyard Area RS-3 0 - 1 06/13/95	Railyard Area RS-3A 0 - 1 08/26/05	Railyard Area RS-4 0 - 1 06/13/95	Railyard Area RS-6 0 - 1 06/13/95	Railyard Area RS-7 0 - 1 06/13/95	Railyard Area RS-8 0 - 1 06/13/95
Inorganics											
Aluminum	NA	NA	NA	NA	NA	8,000	NA	3,710 [2,920]	7160	1280	5510
Antimony	NA	NA	NA	NA	NA	<1.34	NA	<1.06 [<1.06]	2.11	1.76	1.3
Arsenic	NA	NA	NA	NA	NA	6.93	NA	6.00 [7.02]	6.48	6.9	8.98
Barium	NA	NA	NA	NA	NA	117	NA	76.8 [82.1]	85.7	50.3	64.9
Beryllium	NA	NA	NA	NA	NA	0.591	NA	0.636 [0.740]	<0.524	0.857	<0.524
Cadmium	NA	NA	NA	NA	NA	2.46	NA	0.775 [0.812]	1.19	0.0932	0.93
Calcium	NA	NA	NA	NA	NA	34600	NA	56,900 [24,600]	30400	2540	27400
Chromium Total	NA	NA	NA	NA	90.2 [141]	273	180	62.8 [62.3]	205	66.3	141
Chromium VI (Hexavalent)	NA	NA	NA	NA	<0.830 [<0.830]	NA	<0.830	NA	NA	NA	NA
Cobalt	NA	NA	NA	NA	NA	44.6	NA	15.6 [15.8]	36.5	9.53	17
Copper	NA	NA	NA	NA	NA	114	NA	27.3 [31.4]	75.6	55.6	64.3
Cyanide (total)	NA	NA	NA	NA	NA	<0.270	NA	<0.260 [<0.260]	0.27	0.48	0.31
Iron	NA	NA	NA	NA	NA	43,000	NA	14,400 [22,400]	50100	79100	28000
Lead	769	214 [1,370]	159	209	NA	161	NA	30.1 [29.8]	98.1	6.91	72.2
Lead - Coarse Fraction	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Fine Fraction	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Total (Calculated by fine/coarse fraction)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	NA	NA	NA	NA	NA	4,180	NA	5,340 [3,390]	6340	R	4010
Manganese	NA	NA	NA	NA	NA	5030	NA	300 [463]	2,020	551	2,060
Mercury	NA	NA	NA	NA	NA	0.367	NA	<0.0530 [0.102]	0.143	<0.0535	0.0709
Nickel	NA	NA	NA	NA	NA	271	NA	71.8 [71.1]	198	49.1	152
Potassium	NA	NA	NA	NA	NA	1,150	NA	748 [<528]	1,210	<535	706
Selenium	NA	NA	NA	NA	NA	<1.34	NA	2.00 [2.35]	<1.05	3.34	<1.05
Silver	NA	NA	NA	NA	NA	<1.34	NA	<1.06 [<1.06]	<1.05	<3.34	<1.05
Sodium	NA	NA	NA	NA	NA	<537	NA	<530 [<528]	<524	1,550	<524
Sulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	<0.268	NA	<0.265 [<0.264]	<0.262	<0.268	<0.262
Tin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA	24.5	NA	16.7 [17.8]	22.5	11.2	23.9
Zinc	NA	NA	NA	NA	NA	448	NA	111 [119]	306	42.1	566

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TABLE I-3
SUMMARY OF SOIL INORGANIC RESULTS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	Railyard Area RS-09 0 - 1 08/19/05	Railyard Area RS-10 0 - 1 08/19/05	Railyard Area RS-11 0 - 1 08/19/05	Railyard Area RS-12 0 - 1 08/19/05	Railyard Area RS-13 0 - 1 08/19/05	Railyard Area RS-14 0 - 1 08/19/05	Railyard Area RS-15 0 - 1 08/19/05	Railyard Area RS-16 0 - 1 08/19/05	Railyard Area RS-17 0 - 1 08/19/05	Railyard Area RS-18 0 - 1 08/19/05	Railyard Area RY-B1 1 07/14/98
Inorganics											
Aluminum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium VI (Hexavalent)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Coarse Fraction	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Fine Fraction	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Total (Calculated by fine/coarse fraction)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	1,560	449	3,650	2,310	2,360 [1,530]	2,380	329	632	5,470	25	NA
Mercury	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	Railyard Area RY-B2 1 07/14/98	Saginaw River Area MW-183WT 8 - 8.5 07/24/00	Saginaw River Area SB-374 9.5 - 10.5 07/24/00	Saginaw River Area SB-375 6.5 - 7.5 07/24/00	Saginaw River Area SB-376 7 - 8 07/25/00	Saginaw River Area SB-377 0 - 0.5 07/25/00	Saginaw River Area SB-377 0.5 - 1 07/25/00	Saginaw River Area SB-378 Floor 2 - 3 09/22/04	Saginaw River Area SB-378 North Floor 2 - 3 09/22/04	Saginaw River Area SB-378 Northeast Wall 0 - 1 09/13/04
Inorganics										
Aluminum	NA	4,830	7,080	5,090 [4,160]	5,500	13,700	4,060 [11,400]	NA	NA	NA
Antimony	NA	<7.70	<8.20	<8.30 [<8.10]	<8.20	<6.40	<6.30 [<6.50]	NA	NA	NA
Arsenic	NA	5.2	3.2	3.90 [3.80]	3.2	4.9	3.40 [4.40]	NA	NA	NA
Barium	NA	39.9	56.6	34.1 [31.9]	44.8	81.1	21.2 [83.0]	NA	NA	NA
Beryllium	NA	<0.640	<0.690	<0.690 [<0.680]	<0.680	<0.530	<0.520 [<0.540]	NA	NA	NA
Cadmium	NA	0.09	0.63	<0.690 [0.380]	<0.680	0.64	1.00 [0.0700]	NA	NA	NA
Calcium	NA	31,200	36,000	37,400 [33,500]	31,600	16,500	17,100 [16,200]	NA	NA	NA
Chromium Total	NA	10.4	14.9	10.4 [9.70]	11.5	24.6	31.9 [39.1]	NA	NA	NA
Chromium VI (Hexavalent)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	NA	3.7	5.5	4.50 [3.90]	4	7.1	3.00 [6.30]	NA	NA	NA
Copper	NA	6.5	10.4	7.10 [6.20]	7.6	32.6	27.6 [17.9]	NA	NA	NA
Cyanide (total)	NA	<0.640	<0.690	<0.690 [<0.680]	<0.680	<0.530	<0.520 [<0.540]	NA	NA	NA
Iron	NA	11,800	16,500	10,000 [10,200]	9,280	18,800	38,400 [18,200]	NA	NA	NA
Lead	NA	<3.90	5.6	<3.90 [3.40]	4.3	11.7	2.60 [11.8]	NA	NA	NA
Lead - Coarse Fraction	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Fine Fraction	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Total (Calculated by fine/coarse fraction)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	NA	11,600	17,300	12,900 [11,800]	13,700	7,380	1,190 [5,330]	NA	NA	NA
Manganese	NA	333	450	476 [360]	266	527	3,510 [1,690]	21,500	26,600	2,350
Mercury	NA	0.029	0.23	<0.140 [0.0340]	<0.140	0.028	<0.100 [<0.110]	NA	NA	NA
Nickel	NA	8.1	13.2	9.10 [8.40]	9	22.2	25.4 [17.9]	NA	NA	NA
Potassium	NA	649	1,100	907 [631]	942	2,210	381 [1,450]	NA	NA	NA
Selenium	NA	<0.640	0.76	0.530 [0.600]	1.2	1.3	2.90 [0.680]	NA	NA	NA
Silver	NA	<1.30	<1.40	<1.00 [<1.40]	<1.40	<1.10	0.220 [<1.10]	NA	NA	NA
Sodium	NA	<640	<687	<692 [<678]	<681	<532	<521 [<539]	NA	NA	NA
Sulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	<1.30	<1.40	<1.40 [0.700]	<1.40	<1.10	<1.00 [<1.10]	NA	NA	NA
Tin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	NA	13.9	17.2	13.3 [11.4]	14.2	29	9.70 [25.6]	NA	NA	NA
Zinc	NA	26.9	35.9	31.5 [23.7]	31.7	39.3	<9.20 [39.8]	NA	NA	NA

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	Saginaw River Area SB-378 Northwest Wall 0 - 1 08/30/04	Saginaw River Area SB-378 South Floor 2 - 3 09/22/04	Saginaw River Area SB-378 South Wall 0 - 1 09/13/04	Saginaw River Area SB-378 Southwest Wall 0 - 1 08/30/04	Saginaw River Area SB-379 0 - 0.5 07/25/00	Saginaw River Area SB-379 0.5 - 1 07/25/00	Saginaw River Area SB-380 Northeast Wall 0 - 1 08/30/04	Saginaw River Area SB-380 Northwest Wall 0 - 1 09/13/04
Inorganics								
Aluminum	NA	NA	NA	NA	9,030	4,390	NA	NA
Antimony	NA	NA	NA	NA	<6.80	<6.10	NA	NA
Arsenic	NA	NA	NA	NA	3.6	1.4	NA	NA
Barium	NA	NA	NA	NA	55.1	27.1	NA	NA
Beryllium	NA	NA	NA	NA	<0.560	<0.510	NA	NA
Cadmium	NA	NA	NA	NA	0.57	0.31	NA	NA
Calcium	NA	NA	NA	NA	17,300	14,300	NA	NA
Chromium Total	NA	NA	NA	NA	36.7	31.5	NA	NA
Chromium VI (Hexavalent)	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	NA	NA	NA	NA	4.7	1.3	NA	NA
Copper	NA	NA	NA	NA	16	5.6	NA	NA
Cyanide (total)	NA	NA	NA	NA	<0.560	<0.510	NA	NA
Iron	NA	NA	NA	NA	17,500	9,800	NA	NA
Lead	NA	NA	NA	NA	9.6	3.5	NA	NA
Lead - Coarse Fraction	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Fine Fraction	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Total (Calculated by fine/coarse fraction)	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	NA	NA	NA	NA	3,650	588	NA	NA
Manganese	299	13,600	1,830	342	1,350	2,250	688	848
Mercury	NA	NA	NA	NA	0.054	<0.100	NA	NA
Nickel	NA	NA	NA	NA	15.6	3.5	NA	NA
Potassium	NA	NA	NA	NA	1,180	374	NA	NA
Selenium	NA	NA	NA	NA	1.2	0.56	NA	NA
Silver	NA	NA	NA	NA	<1.10	0.18	NA	NA
Sodium	NA	NA	NA	NA	<563	<507	NA	NA
Sulfide	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	<1.10	<1.00	NA	NA
Tin	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA	19.9	8.9	NA	NA
Zinc	NA	NA	NA	NA	40.6	<6.80	NA	NA

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TABLE I-3
SUMMARY OF SOIL INORGANIC RESULTS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	Saginaw River Area SB-380 South Floor 2 - 3 09/22/04	Saginaw River Area SB-380 South Wall 0 - 1 09/13/04	Saginaw River Area SB-381 Floor 2 09/13/04	Saginaw River Area SB-381 Northeast Wall 0 - 1 09/13/04	Saginaw River Area SB-381 Northwest Wall 0 - 1 08/30/04	Saginaw River Area SB-381 Southwest Wall 0 - 1 08/30/04	Saginaw River Area SB-382 0 - 0.5 07/25/00	Saginaw River Area SB-382 0.5 - 1 07/25/00	Saginaw River Area SB-383 0 - 0.5 07/25/00
Inorganics									
Aluminum	NA	NA	NA	NA	NA	NA	9,170	10,500	3,350
Antimony	NA	NA	NA	NA	NA	NA	<6.20	0.92	<6.30
Arsenic	NA	NA	NA	NA	NA	NA	5.9	6.1	1.7
Barium	NA	NA	NA	NA	NA	NA	70.2	83	14.7
Beryllium	NA	NA	NA	NA	NA	NA	<0.520	<0.550	<0.520
Cadmium	NA	NA	NA	NA	NA	NA	0.87	1.2	0.29
Calcium	NA	NA	NA	NA	NA	NA	26,900	33,400	10,500
Chromium Total	NA	NA	NA	NA	NA	NA	42.7	65	8.4
Chromium VI (Hexavalent)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	NA	NA	NA	NA	NA	NA	4.9	5.1	1.3
Copper	NA	NA	NA	NA	NA	NA	20	32.1	8.8
Cyanide (total)	NA	NA	NA	NA	NA	NA	<0.520	<0.550	<0.520
Iron	NA	NA	NA	NA	NA	NA	20,300	26,500	7,030
Lead	NA	NA	NA	NA	NA	NA	37.7	46.9	15.2
Lead - Coarse Fraction	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Fine Fraction	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Total (Calculated by fine/coarse fraction)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	NA	NA	NA	NA	NA	NA	5,780	5,330	1,130
Manganese	17,200	2,710	6,200	1,130	547 [684]	2,360	2,190	3,450	225
Mercury	NA	NA	NA	NA	NA	NA	0.058	0.08	0.023
Nickel	NA	NA	NA	NA	NA	NA	16.8	21	<5.10
Potassium	NA	NA	NA	NA	NA	NA	1,490	1,400	368
Selenium	NA	NA	NA	NA	NA	NA	1.5	2	0.35
Silver	NA	NA	NA	NA	NA	NA	<1.00	0.33	<1.00
Sodium	NA	NA	NA	NA	NA	NA	<516	<552	<521
Sulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	<1.00	<1.10	<1.00
Tin	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA	NA	20.1	21.1	4.8
Zinc	NA	NA	NA	NA	NA	NA	73.1	78.2	27.9

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SUMMARY OF SOIL INORGANIC RESULTS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area	Saginaw River Area	Saginaw River Area	Saginaw River Area	Saginaw River Area	Saginaw River Area	Saginaw River Area	Saginaw River Area	Saginaw River Area	Saginaw River Area	Saginaw River Area	Saginaw River Area	Stormwater Pond	Stormwater Pond	Stormwater Pond
Location ID	SB-383	SB-384	SB-384	SB-385	SB-385	SB-386	SB-386	SB-387	SB-387	SB-388	SB-388	NS-7	NS-8	NS-9
Sample Depth (ft bgs):	0.5 - 1	0 - 0.5	0.5 - 1	0 - 0.5	0.5 - 1	0 - 0.5	0.5 - 1	0 - 0.5	0.5 - 1	0 - 0.5	0.5 - 1	0 - 4.5	0 - 10	0 - 4.5
Date Collected:	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	06/21/95	06/21/95	06/21/95
Inorganics														
Aluminum	3,730	8,770	6,030	4,740	4,040	3,710	3,490	4,430	3,530	7,610	3,670	2,150	2,920	1,520
Antimony	<6.10	<6.40	<6.30	<6.30	<6.40	<6.20	<6.20	<6.20	<6.60	<6.30	<6.60	<0.314	<0.362	<0.325
Arsenic	1.3	4.5	3.2	4.2	2.5	3.2	2.5	3.8	2.3	6.1	5.7	1.53	7.31	2.08
Barium	9.6	50.7	39.6	38.3	52.3	37.2	22.1	39.9	25.7	76.3	37.9	23.7	24.8	18.2
Beryllium	<0.510	<0.530	<0.520	<0.530	<0.540	0.06	<0.520	<0.520	<0.550	<0.520	<0.550	<0.629	<0.724	<0.651
Cadmium	0.14	0.55	0.63	0.53	0.58	<0.520	<0.520	0.34	<0.550	0.21	0.12	0.0428	0.125	0.039
Calcium	2,490	13,000	108,000	15,900	55,300	13,000	16,600	13,300	10,500	30,400	33,100	39200	43600	34400
Chromium Total	3.9	24.7	42.6	15.4	12.2	25.1	7.7	21.6	43.9	65.7	22.7	5.41	7.53	3.84
Chromium VI (Hexavalent)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	1.1	4	2.4	3.2	2.2	2.2	2.2	3.1	1.7	3.8	2.9	<6.29	<7.24	<6.51
Copper	<3.00	15.4	16	18	10.6	13.5	5.6	28.7	16.7	28.2	15.3	3.58	4.85	2.6
Cyanide (total)	<0.510	<0.530	<0.520	<0.530	<0.540	<0.520	<0.520	<0.520	<0.550	<0.520	<0.550	<0.310	0.56	<0.330
Iron	4,710	13,900	15,300	10,900	6,980	10,500	5,930	15,000	12,400	20,900	9,800	4,900	7,070	3,720
Lead	2.6	15.5	14.5	26.3	120	45.1	8.5	61.5	9	27.4	11.3	2.13	2.52	1.48
Lead - Coarse Fraction	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Fine Fraction	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Total (Calculated by fine/coarse fraction)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	847	4,320	3,680	4,900	10,900	2,270	4,420	3,530	1,040	5,800	8,370	10,700	13,900	8,550
Manganese	156	738	2,070	276	384	1180	173	686	2200	2940	909	218	134	170
Mercury	0.011	0.051	0.036	0.064	<0.110	0.16	<0.100	<0.100	<0.110	<0.100	<0.110	<0.0629	<0.0724	<0.0651
Nickel	<4.10	13.7	16.4	<11.1	7.4	7.7	6.5	13	14.1	14	8.4	6.1	7.17	3.9
Potassium	356	1,550	742	912	646	515	633	686	392	1,120	515	<629	<724	<651
Selenium	<0.510	0.98	0.88	0.68	0.61	0.33	0.36	0.51	0.49	0.97	<0.550	<0.314	<0.362	<0.325
Silver	<1.00	<1.10	0.18	<1.10	<1.10	<1.00	<1.00	<1.00	<1.10	0.19	<1.10	<0.314	<0.362	<0.325
Sodium	<510	<532	<524	<525	<536	<516	<516	<516	<550	<521	<550	<629	<724	<651
Sulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	<1.00	<1.10	<1.00	<1.10	0.59	<1.00	<1.00	<1.00	<1.10	0.55	<1.10	<0.314	<0.362	<0.325
Tin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	4.4	17.8	12.8	11.5	9.3	9.5	9	10.5	9.4	17.2	9	5.97	10.1	5.92
Zinc	<7.50	46.8	26.4	56	50.1	57.9	16.2	101	12	54.1	37.5	12.5	18.1	10.8

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TABLE I-3
SUMMARY OF SOIL INORGANIC RESULTS COMPARED TO GENERIC MDEQ CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	Stormwater Pond NS-10 0 - 10 06/21/95	UST 7 BBL-MW1 4 - 6 05/02/96	UST 7 BBL-MW2 4 - 6 05/02/96	UST 7 BBL-MW3 6 - 8 05/02/96	UST 7 BBL-MW4 4 - 6 05/03/96	UST 7 BBL-MW5 4 - 6 05/03/96	UST 7 BBL-SB1 4 - 6 05/06/96	UST 7 BBL-SB1 8 - 10 05/06/96	UST 7 BBL-SB2 0 - 2 05/07/96	UST 7 BBL-SB3 6 - 8 05/07/96	UST 7 BBL-SB3 8 - 10 05/07/96	UST 7 BBL-SB4 0 - 2 05/07/96	UST 7 BBL-SB4 8 - 10 05/07/96	UST 7 BBL-SB5 0 - 2 05/06/96	UST 7 BBL-SB5 20 - 22 05/06/96	UST 7 SB-351 0 - 2 06/27/95
Inorganics																
Aluminum	12600	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4,720
Antimony	<0.672	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.57
Arsenic	8.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.3
Barium	114	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	34.4
Beryllium	0.739	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.14
Cadmium	0.319	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.41
Calcium	30,900	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2,860
Chromium Total	23.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.8
Chromium VI (Hexavalent)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	9.47	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5
Copper	17.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	29.5
Cyanide (total)	<0.340	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.110
Iron	26,100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	19,300
Lead	7.48	38	12	13.2	4.48	2.55	4.39	17.8	28.3	38.2	25.5	14.8	14.9	138	5.17	41.3
Lead - Coarse Fraction	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Fine Fraction	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead - Total (Calculated by fine/coarse fraction)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	20,200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1160
Manganese	1,190	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	314
Mercury	<0.0672	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.0600
Nickel	20.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.1
Potassium	1,290	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	666
Selenium	<0.672	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.280
Silver	<0.672	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23
Sodium	<672	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	597
Sulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	<0.336	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.570
Tin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	26.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10.3
Zinc	51.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	31.6

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TABLE I-4
SUMMARY OF CONSTITUENTS OF POTENTIAL CONCERN (COPCs)

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth(ft bgs): Date Collected:	Units	Soil Saturation Concentration Screening Levels CSAT	Groundwater Contact Protection GCCP	Groundwater Surface Water Interface Protection GSIP	Industrial Direct Contact IDC	Industrial Drinking Water Protection IDWP	Industrial Particulate Soil Inhalation Criteria IPSIC	Industrial Soil Volatilization to Indoor Air Inhalation ISVIA	Finite VSIC for 2 Meter Source Thickness IVSIC2
Volatile Organics									
1,2,4-Trimethylbenzene	mg/kg	110	110	0.57	110	2.1	36,000,000	110	600,000
1,3,5-Trimethylbenzene	mg/kg	94	94	1.1	94	1.8	36,000,000	94	460,000
Benzene	mg/kg	400	220	4	400	0.1	470,000	8.4	230
Cyclohexane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -
Ethylbenzene	mg/kg	140	140	0.36	140	1.5	13,000,000	140	6,500
Methyl cyclohexane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -
Methylene Chloride	mg/kg	2,300	2,300	19	2,300	0.1	8,300,000	240	4,000
Toluene	mg/kg	250	250	2.8	250	16	12,000,000	250	36,000
Total Xylenes	mg/kg	150	150	0.7	150	5.6	130,000,000	150	130,000
Semivolatile Organics									
4-Chloroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -
Biphenyl	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -
Carbazole	mg/kg		820	1.1	2400	39			
Dibenzofuran	mg/kg			1.7					
Fluoranthene	mg/kg		730	5.5	130000	730	4100000	1000000	880000
Naphthalene	mg/kg		2100	0.87	52000	100	88000	470	350
Phenanthrene	mg/kg		1100	5.3	5200	160	2900	5100	190
Inorganics									
Aluminum	mg/kg		1000000		370000	6900			
Antimony	mg/kg		49000	94	670	4.3	5900		
Arsenic	mg/kg		2000	70	37	5.8	910		
Cadmium	mg/kg		230000	5.4	2100	6	2200		
Calcium	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -
Chromium Total	mg/kg		140000	18	9200	30	240		
Chromium VI (Hexavalent)	mg/kg		140000	18	9200	30	240		
Cobalt	mg/kg		48000	6.8	9000	6.8	5900		
Copper	mg/kg		1000000	120	73000	5800	59000		
Cyanide (total)	mg/kg		250	0.39	250	4	250		
Iron	mg/kg		1000000		580000	12000			
Lead	mg/kg			5000	900	700	44000		
Magnesium	mg/kg		1000000		1000000	22000	2900000		
Manganese	mg/kg		180000	440	90000	440	1500		
Mercury	mg/kg		47	0.13	580	1.7	8800	89	62
Nickel	mg/kg		1000000	120	150000	100	16000		
Potassium	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -
Selenium	mg/kg		78000	0.41	9600	4	59000		
Silver	mg/kg		200000	1	9000	13	2900		
Sodium	mg/kg		1000000		1000000	7000			
Thallium	mg/kg		15000	4.2	130	2.3			
Zinc	mg/kg		1000000	260	630000	5000			

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TABLE I-4
SUMMARY OF CONSTITUENTS OF POTENTIAL CONCERN (COPCs)

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth(ft bgs): Date Collected:	Units	Finite VSIC for 5 Meter Source Thickness IVSIC5	Infinite Source Volatile Soil Inhalation Criteria IVSICI	Residential Drinking Water Protection RDWP	Minimum Criteria	Screening Level	Maximum Concentration	Maximum Concentration Exceeds Screening Level?
Volatile Organics								
1,2,4-Trimethylbenzene	mg/kg	600,000	25,000	2.1	0.57	0.57	84	Yes
1,3,5-Trimethylbenzene	mg/kg	460,000	19,000	1.8	1.10	1.10	18	Yes
Benzene	mg/kg	99	45	0.1	0.10	0.10	21	Yes
Cyclohexane	mg/kg	- -	- -	- -	NA	NA	0.41	Yes/NA
Ethylbenzene	mg/kg	3,100	2,400	1.5	0.36	0.36	29	Yes
Methyl cyclohexane	mg/kg	- -	- -	- -	NA	NA	0.9800	Yes/NA
Methylene Chloride	mg/kg	1,700	700	0.1	0.10	0.10	0.30	Yes
Toluene	mg/kg	36,000	3,300	16	2.80	2.80	6.40	Yes
Total Xylenes	mg/kg	65,000	54,000	5.6	0.70	0.70	120	Yes
Semivolatile Organics								
4-Chloroaniline	mg/kg	- -	- -	- -	NA	NA	0.053	Yes/NA
Biphenyl	mg/kg	- -	- -	- -	NA	NA	0.12	Yes/NA
Carbazole	mg/kg			9.4	1.10	1.10	3.6	Yes
Dibenzofuran	mg/kg				1.70	1.70	2.4	Yes
Fluoranthene	mg/kg	880000	890000	730	5.50	5.50	21	Yes
Naphthalene	mg/kg	350	350	35	0.87	0.87	1.1	Yes
Phenanthrene	mg/kg	190	190	56	5.30	5.30	23	Yes
Inorganics								
Aluminum	mg/kg			6900	6900	6900	20900	Yes
Antimony	mg/kg			4.3	4.3	4.3	22.3	Yes
Arsenic	mg/kg			5.8	5.8	5.8	23.6	Yes
Cadmium	mg/kg			6	5.4	5.4	6.38	Yes
Calcium	mg/kg	- -	- -	- -	NA	NA	275000	Yes/NA
Chromium Total	mg/kg			30	18	18	1110	Yes
Chromium VI (Hexavalent)	mg/kg			30	18	18	ND	No/ND
Cobalt	mg/kg			6.8	6.8	6.8	143	Yes
Copper	mg/kg			5800	120	120	44700	Yes
Cyanide (total)	mg/kg			4	0.39	0.39	2.70	Yes
Iron	mg/kg			12000	12000	12000	100000	Yes
Lead	mg/kg			700	700	700	1780	Yes
Magnesium	mg/kg			8000	8000	8000	20200	Yes
Manganese	mg/kg			440	440	440	26600	Yes
Mercury	mg/kg	62	62	1.7	0.13	0.13	0.69	Yes
Nickel	mg/kg			100	100	100	3400	Yes
Potassium	mg/kg	- -	- -	- -	NA	NA	12100	Yes/NA
Selenium	mg/kg			4	0.41	0.41	4.31	Yes
Silver	mg/kg			4.5	1.0	1.0	1.38	Yes
Sodium	mg/kg			2500	2500	2500	5390	Yes
Thallium	mg/kg			2.3	2.3	2.3	5.90	Yes
Zinc	mg/kg			2400	260	260	5560	Yes

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TABLE I-5

COMPARISON OF VOC COPCs TO FACILITY-SPECIFIC GENERIC MDEQ CRITERIA WITHOUT GSIP CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	Units	Soil Saturation Concentration Screening Levels CSAT	Groundwater Contact Protection GCCP	Groundwater Surface Water Interface Protection GSIP	Industrial Direct Contact IDC	Industrial Drinking Water Protection IDP	Industrial Particulate Soil Inhalation Criteria IPSIC	Industrial Soil Volatilization to Indoor Air Inhalation ISVIA	Finite VSIC for 2 Meter Source Thickness IVSIC2	Finite VSIC for 5 Meter Source Thickness IVSIC5	Infinite Source Volatile Soil Inhalation Criteria IVSICI	Residential Drinking Water Protection RDP	Minimum Criteria
Volatile Organics													
1,2,4-Trimethylbenzene	mg/kg	110 {I}	110 {I,C}	0.57 {I}	110 {I,C}	2.1 {I}	36,000,000 {I}	110 {I,C}	600,000 {I}	600,000 {I}	25,000 {I}	2.1 {I}	110.00
1,3,5-Trimethylbenzene	mg/kg	94 {I}	94 {I,C}	1.1 {I}	94 {I,C}	1.8 {I}	36,000,000 {I}	94 {I,C}	460,000 {I}	460,000 {I}	19,000 {I}	1.8 {I}	94.00
Benzene	mg/kg	400 {I}	220 {I}	4 {I,X}	400 {I,C}	0.1 {I}	470,000 {I}	8.4 {I}	230 {I}	99 {I}	45 {I}	0.1 {I}	8.40
Cyclohexane	mg/kg	- -	- -	- -	- -	- -		- -	- -	- -	- -	- -	NA
Ethylbenzene	mg/kg	140 {I}	140 {I,C}	0.36 {I}	140 {I,C}	1.5 {I}	13,000,000 {I}	140 {I,C}	6,500 {I}	3,100 {I}	2,400 {I}	1.5 {I}	140.00
Methyl cyclohexane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA
Methylene Chloride	mg/kg	2,300	2,300 {C}	19 {X}	2,300 {C}	0.1	8,300,000	240	4,000	1,700	700	0.1	240.00
Toluene	mg/kg	250 {I}	250 {I,C}	2.8 {I}	250 {I,C}	16 {I}	12,000,000 {I}	250 {I,C}	36,000 {I}	36,000 {I}	3,300 {I}	16 {I}	250.00
Total Xylenes	mg/kg	150 {I}	150 {I,C}	0.7 {I}	150 {I,C}	5.6 {I}	130,000,000 {I}	150 {I,C}	130,000 {I}	65,000 {I}	54,000 {I}	5.6 {I}	150.00

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TABLE I-5

COMPARISON OF VOC COPCs TO FACILITY-SPECIFIC GENERIC MDEQ CRITERIA WITHOUT GSIP CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	Screening Level	Maximum Concentration	Maximum Concentration Exceeds Screening Level?	Center Street Area M-145T 7 - 17 06/08/95	Center Street Area SB-319 14 - 16 06/13/95	Central Type III Landfill SB-312 8 - 10 06/06/95	CTC Parking Lot PL-1 0.75 - 1.21 08/10/01	CTC Parking Lot PL-2 0.75 - 1.67 08/10/01	CTC Parking Lot PL-3 0.67 - 1.67 08/10/01	CTC Parking Lot PL-4 0.75 - 1.5 08/10/01	CTC Parking Lot VE-1 0.75 - 1.58 08/10/01	CTC Parking Lot VE-2 0.92 - 1.67 08/10/01
Volatile Organics												
1,2,4-Trimethylbenzene	110.00	84	No	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	94.00	18	No	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	8.40	21	Yes	<0.0066	<0.0065	<0.0062	<0.0060	<0.0050 [<0.0060]	<0.0060	<0.0060	<0.0060	<0.0060
Cyclohexane	NA	0.41	Yes/NA	NA	NA	NA	<0.0060	<0.0050 [<0.0060]	<0.0060	<0.0060	<0.0060	<0.0060
Ethylbenzene	140.00	29	No	<0.0066	<0.0065	<0.0062	<0.0060	<0.0050 [0.0020]	<0.0060	<0.0060	0.016	<0.0060
Methyl cyclohexane	NA	0.98	Yes/NA	NA	NA	NA	<0.0060	<0.0050 [<0.0060]	<0.0060	<0.0060	0.002	<0.0060
Methylene Chloride	240.00	0.30	No	0.0049	<0.0065	0.0065	<0.0060	<0.0050 [<0.0060]	<0.0060	<0.0060	<0.0060	<0.0060
Toluene	250.00	6.40	No	0.024	<0.0065	0.0052	0.001	<0.0050 [0.0040]	<0.0060	0.0009	0.038	<0.0060
Total Xylenes	150.00	120	No	<0.0066	0.0089	<0.0062	0.002	<0.0050 [0.010]	<0.0060	<0.0060	0.079	<0.0060

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COMPARISON OF VOC COPCs TO FACILITY-SPECIFIC GENERIC MDEQ CRITERIA WITHOUT GSIP CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area	Drum Remediation/ Wetland Area	Drum Remediation/ Wetland Area	Drum Remediation/ Wetland Area	Drum Remediation/ Wetland Area	Drum Remediation/ Wetland Area	Drum Remediation/ Wetland Area	Drum Remediation/ Wetland Area	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill
Location ID	M-126T	MB-1	MB-2	MB-3	MB-4	MB-5	MB-6	SB-313	SB-389	SB-390	SB-391	SB-392	SB-393
Sample Depth (ft bgs):	14 - 16	3 - 3.5	3 - 3.5	5 - 5.5	0.5 - 1	0.5 - 1	4 - 4.5	4 - 6	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5
Date Collected:	02/08/95	01/22/97	01/22/97	01/22/97	01/22/97	01/22/97	01/22/97	06/07/95	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00
Volatile Organics													
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	<0.0057	<0.0059	<0.0071	<0.0061	<0.0072	<0.0069	<0.0068	0.0024	<0.0058	<0.0087	<0.0071	<0.0068	<0.0067
Cyclohexane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	<0.0057	<0.0059	<0.0071	<0.0061	<0.0072	<0.0069	<0.0068	<0.0056	R	<0.0087	<0.0071	<0.0068	<0.0067
Methyl cyclohexane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	0.018	<0.0059	<0.0071	<0.0061	<0.0072	<0.0069	<0.0068	0.0041	0.086	0.02	<0.0071	<0.0068	0.078
Toluene	<0.0057	<0.0059	<0.0071	<0.0061	<0.0072	<0.0069	<0.0068	<0.0056	R	<0.0087	<0.0071	<0.0068	<0.0067
Total Xylenes	<0.0057	<0.0059	<0.0071	<0.0061	<0.0072	<0.0069	<0.0068	0.011	R	<0.0087	<0.0071	<0.0068	<0.0067

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COMPARISON OF VOC COPCs TO FACILITY-SPECIFIC GENERIC MDEQ CRITERIA WITHOUT GSIP CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area
Location ID	SB-394	SB-395	SB-396	SB-397	SB-398	SB-399	SB-400	SB-406	SB-412	SB-418	SB-01A	SB-01A	SB-325
Sample Depth (ft bgs):	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	1 - 3	5 - 7	8 - 10
Date Collected:	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/23/01	08/23/01	06/14/95
Volatile Organics													
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	<0.0067	<0.0067	<0.015	<0.0070	<0.0061	<0.0062	<0.0080	<0.0054	<0.0088	<0.0066 [<0.0069]	<0.0053	<0.0053	0.067
Cyclohexane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	<0.0067	<0.0067	R	<0.0070	<0.0061	<0.0062	<0.0080	R	<0.0088	<0.0066 [<0.0069]	<0.0053	<0.0053	0.027
Methyl cyclohexane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	<0.0067	<0.0067	0.3	0.0047	0.022	0.0027	0.011	0.081	0.0036	<0.0066 [<0.0069]	<0.0053	<0.0053	<0.0060
Toluene	<0.0067	<0.0067	R	<0.0070	<0.0061	<0.0062	<0.0080	R	<0.0088	<0.0066 [<0.0069]	<0.0053	<0.0053	0.1
Total Xylenes	<0.0067	<0.0067	R	<0.0070	<0.0061	<0.0062	<0.0080	R	<0.0088	<0.0066 [<0.0069]	<0.0053	<0.0053	0.072

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COMPARISON OF VOC COPCs TO FACILITY-SPECIFIC GENERIC MDEQ CRITERIA WITHOUT GSIP CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area
Location ID	SB-362	SB-362	SB-362	SB-363	SB-363	SB-363	US-1	US-2	US-3	US-4	US-6	US-7	US-8
Sample Depth (ft bgs):	0 - 2	4 - 6	8 - 10	0 - 2	4 - 6	8 - 10	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1
Date Collected:	09/28/95	09/28/95	09/28/95	09/28/95	09/28/95	09/28/95	06/12/95	06/12/95	06/12/95	06/12/95	06/12/95	06/12/95	06/12/95
Volatile Organics													
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	<0.0059	<0.011	<0.031	0.0026	<0.0055	0.0075	<0.0063	<0.0054	<0.0053	<0.0053	<0.0052	<0.0051	<0.0051
Cyclohexane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	<0.0059	<0.011	<0.031	0.0047	0.0045	0.014	<0.0063	<0.0054	<0.0053	<0.0053	<0.0052	<0.0051	<0.0051
Methyl cyclohexane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	0.0031	<0.011	<0.031	<0.0056	<0.0055	<0.0061	<0.0039	<0.0050	<0.0054	<0.014	<0.010	<0.015	<0.0095
Toluene	<0.0059	0.019	0.017	0.074	0.083	0.042	0.017	0.018	<0.011	<0.0064	<0.0029	<0.0090	0.016
Total Xylenes	<0.0059	0.024	0.097	0.017	0.02	0.033	<0.0063	<0.0054	<0.0053	<0.0053	<0.0052	<0.0051	<0.0051

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COMPARISON OF VOC COPCs TO FACILITY-SPECIFIC GENERIC MDEQ CRITERIA WITHOUT GSIP CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area	Parking Lot Area/Buffer Basin	Parking Lot Area/Buffer Basin	Parking Lot Area/Buffer Basin	Parking Lot Area/Buffer Basin	Parking Lot Area/Buffer Basin	Previous Metal Feedstock	Previous Metal Feedstock	Previous Metal Feedstock	Previous Metal Feedstock	Previous Metal Feedstock	Previous Metal Feedstock	Previous Metal Feedstock
Location ID	BH9	BH9	BH10	BH10	SB-354	FS-1	FS-2	FS-3	FS-4	FS-5	FS-6	FS-7
Sample Depth (ft bgs):	1 - 2	2 - 4	1 - 2	2 - 4	0 - 2	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1
Date Collected:	03/06/07	03/06/07	03/06/07	03/06/07	06/28/95	06/12/95	06/12/95	06/12/95	06/12/95	06/12/95	06/12/95	06/12/95
Volatile Organics												
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	<0.046	<0.049	<0.041	0.012	0.0064	<0.0054	<0.0054	<0.0056	<0.0056	<0.0054	<0.0051 [<0.0051]	<0.0054
Cyclohexane	<1.1	<1.2	<0.99	<0.92	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	<0.046	<0.049	<0.041	0.01	0.0037	<0.0054	<0.0054	<0.0056	<0.0056	<0.0054	<0.0051 [<0.0051]	<0.0054
Methyl cyclohexane	0.077	<1.2	0.06	<0.92	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	<0.23	<0.25	<0.21	<0.19	0.0017	<0.0050	<0.0067	<0.0090	<0.0040	<0.0067	<0.014 [<0.0095]	<0.012
Toluene	0.011	<0.098	0.0096	0.019	0.29	<0.0054	0.013	<0.0052	<0.0023	<0.0086	0.025 [0.026]	<0.0080
Total Xylenes	0.056	0.033	0.047	0.056	0.013	<0.0054	<0.0054	<0.0056	<0.0056	<0.0054	<0.0051 [<0.0051]	<0.0054

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TABLE I-5

COMPARISON OF VOC COPCs TO FACILITY-SPECIFIC GENERIC MDEQ CRITERIA WITHOUT GSIP CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	Previous Metal Feedstock FS-8 0 - 1 06/12/95	Previous Metal Feedstock SB-304 0 - 1 02/08/95	Previous Metal Feedstock SB-304 2 - 4 02/08/95	Previous Metal Feedstock SB-304 6 - 8 02/08/95	Previous Metal Feedstock SB-305 0 - 1 02/08/95	Previous Metal Feedstock SB-305 2 - 4 02/08/95	Previous Metal Feedstock SB-305 6 - 8 02/08/95	Previous Metal Feedstock SB-305 10 - 12 02/08/95	Previous Metal Feedstock SB-352 0 - 2 06/28/95	Previously Proposed Type III Landfill Area TP1 0 - 4 05/22/98
Volatile Organics										
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	<0.0052	<0.0054	<0.0053	<0.0063	<0.0056	<0.0054	<0.0056	<0.0069	0.0017	<0.0050
Cyclohexane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	<0.0052	<0.0054	<0.0053	<0.0063	<0.0056	<0.0054	<0.0056	<0.0069	<0.0056	<0.0050
Methyl cyclohexane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	<0.0081	<0.0086	<0.0080	<0.0064	0.032	<0.019	<0.013	<0.0069	0.0019	0.019
Toluene	0.026	<0.0054	<0.0053	<0.0063	<0.0056	<0.0054	0.025	0.017	0.048	<0.0050
Total Xylenes	<0.0052	<0.0054	<0.0053	<0.0063	<0.0056	<0.0054	<0.0056	<0.0069	0.002	<0.0050

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COMPARISON OF VOC COPCs TO FACILITY-SPECIFIC GENERIC MDEQ CRITERIA WITHOUT GSIP CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area	Previously Proposed Type III Landfill Area	Previously Proposed Type III Landfill Area	Previously Proposed Type III Landfill Area	Previously Proposed Type III Landfill Area	Previously Proposed Type III Landfill Area	Previously Proposed Type III Landfill Area	Previously Proposed Type III Landfill Area	Previously Proposed Type III Landfill Area	Previously Proposed Type III Landfill Area
Location ID	TP1	TP2	TP2	TP3	TP3	TP4	TP4	TP5	TP5
Sample Depth (ft bgs):	4 - 8	0 - 4	4 - 8	0 - 4	4 - 8	0 - 4	4 - 8	0 - 4	4 - 8
Date Collected:	05/22/98	05/22/98	05/22/98	05/22/98	05/22/98	05/22/98	05/22/98	05/22/98	05/22/98
Volatile Organics									
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cyclohexane	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Methyl cyclohexane	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	0.026	0.031	0.027	0.0077	0.028	0.024	0.049	0.054	0.022
Toluene	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Total Xylenes	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	Previously Proposed Type III Landfill Area TP6 0 - 4 05/22/98	Previously Proposed Type III Landfill Area TP6 4 - 8 05/22/98	Previously Proposed Type III Landfill Area TP7 0 - 4 05/22/98	Primary Settling Pond BH7 0 - 2 03/06/07	Primary Settling Pond BH7 2 - 4 03/06/07	Primary Settling Pond BH8 0 - 2 03/06/07	Primary Settling Pond BH8 2 - 4 03/06/07	Primary Settling Pond NS-1 0 - 14 06/23/95	Railyard Area BH11 0 - 2 03/06/07	Railyard Area BH11 2 - 4 03/06/07	Railyard Area BH12 0 - 2 03/06/07
Volatile Organics											
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	<0.0050	<0.0050	<0.0050	<0.045	<0.051	<0.046	0.029	<0.0074	0.088	0.016	<0.045 [<0.046]
Cyclohexane	NA	NA	NA	0.051	0.062	0.063	0.09	NA	0.41	0.23	<1.1 [<1.1]
Ethylbenzene	<0.0050	<0.0050	<0.0050	<0.045	<0.051	0.011	0.027	<0.0074	0.17	0.33	<0.045 [<0.046]
Methyl cyclohexane	NA	NA	NA	0.082	0.1	0.14	0.19	NA	0.98	0.78	<1.1 [<1.1]
Methylene Chloride	0.069	0.02	0.015	<0.23	<0.25	<0.23	<0.24	<0.0070	<0.26	<0.24	<0.23 [<0.23]
Toluene	<0.0050	<0.0050	<0.0050	0.016	0.025	0.043	0.088	0.018	0.62	<0.095	<0.090 [<0.091]
Total Xylenes	<0.0050	<0.0050	<0.0050	0.065	0.088	0.12	0.21	<0.0074	1.2	0.36	0.050 [<0.14]

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TABLE I-5

COMPARISON OF VOC COPCs TO FACILITY-SPECIFIC GENERIC MDEQ CRITERIA WITHOUT GSIP CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	Railyard Area BH12 2 - 4 03/06/07	Railyard Area NS-RS-4 2.5 - 3 06/13/95	Railyard Area RS-1 0 - 1 06/13/95	Railyard Area RS-2 0 - 1 06/13/95	Railyard Area RS-3 0 - 1 06/13/95	Railyard Area RS-4 0 - 1 06/13/95	Railyard Area RS-6 0 - 1 06/13/95	Railyard Area RS-7 0 - 1 06/13/95	Railyard Area RS-8 0 - 1 06/13/95	Stormwater Pond NS-7 0 - 4.5 06/21/95	Stormwater Pond NS-8 0 - 10 06/21/95	Stormwater Pond NS-9 0 - 4.5 06/21/95
Volatile Organics												
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	0.0076	<0.0063	<0.0053	<0.0054	<0.0054	<0.0053 [<0.0053]	<0.0052	<0.0054	<0.0052	<0.0063	<0.0072	<0.0065
Cyclohexane	<1.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	0.0077	<0.0063	<0.0053	<0.0054	<0.0054	<0.0053 [<0.0053]	<0.0052	<0.0054	<0.0052	<0.0063	<0.0072	<0.0065
Methyl cyclohexane	<1.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	<0.22	<0.0063	<0.019	<0.0068	<0.0078	<0.0052 [<0.0050]	<0.0061	<0.021	<0.010	<0.039	<0.0087	<0.0060
Toluene	<0.089	<0.0059	<0.0053	<0.0054	<0.0054	<0.0053 [<0.0053]	<0.0052	<0.0071	<0.0052	<0.0063	0.01	0.011
Total Xylenes	0.055	<0.0063	<0.0053	<0.0054	<0.0054	<0.0053 [<0.0053]	<0.0052	0.0033	<0.0052	<0.0063	<0.0072	<0.0065

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TABLE I-5

COMPARISON OF VOC COPCs TO FACILITY-SPECIFIC GENERIC MDEQ CRITERIA WITHOUT GSIP CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	Stormwater Pond NS-10 0 - 10 06/21/95	UST 7 BBL-M1 4 - 6 05/02/96	UST 7 BBL-M2 4 - 6 05/02/96	UST 7 BBL-M3 6 - 8 05/02/96	UST 7 BBL-M4 4 - 6 05/03/96	UST 7 BBL-M5 4 - 6 05/03/96	UST 7 BBL-SB1 4 - 6 05/06/96	UST 7 BBL-SB1 8 - 10 05/06/96	UST 7 BBL-SB2 0 - 2 05/07/96	UST 7 BBL-SB2 8 - 10 05/07/96	UST 7 BBL-SB3 6 - 8 05/07/96	UST 7 BBL-SB3 8 - 10 05/07/96	UST 7 BBL-SB4 0 - 2 05/07/96	UST 7 BBL-SB4 8 - 10 05/07/96	UST 7 BBL-SB5 0 - 2 05/06/96	UST 7 BBL-SB5 20 - 22 05/06/96	UST 7 SB-351 0 - 2 06/27/95
Volatile Organics																	
1,2,4-Trimethylbenzene	NA	0.023	R	38	R	R	R	62	R	0.0055	0.11	84	R	R	R	R	NA
1,3,5-Trimethylbenzene	NA	0.027	R	7.7	R	R	R	18	R	R	0.019	7.1	R	R	R	R	NA
Benzene	<0.0067	<0.013	0.003	7.3	<0.0055	<0.0056	<0.0057	<3.5	0.0025	0.01	0.043	21	2.7	3	<0.0060	<0.0061	<0.0056
Cyclohexane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	<0.0067	<0.013	0.0036	14	<0.0055	<0.0056	<0.0057	5.4	<0.0054	0.0028	0.015	29	28	23	<0.0060	<0.0061	<0.0056
Methyl cyclohexane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	<0.0070	<0.013	0.0072	<1.0	0.0043	<0.0056	<0.0057	<3.5	<0.0054	<0.0057	<0.0059	<3.7	<3.4	<1.6	<0.0060	<0.0061	0.0012
Toluene	<0.0067	<0.013	0.0091	6.4	0.012	<0.0056	0.03	<3.5	0.095	0.031	0.0055	2.9	3.8	4.3	<0.0060	0.0024	0.018
Total Xylenes	<0.0067	0.0078	<0.0058	39	<0.0055	<0.0056	<0.0057	29	0.0027	0.01	0.09	45	120	90	<0.0060	<0.0061	0.0018

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TABLE I-5

COMPARISON OF VOC COPCs TO FACILITY-SPECIFIC GENERIC MDEQ CRITERIA WITHOUT GSIP CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	USTs #1 through #4 SB-02 6 - 8 08/08/91	USTs #1 through #4 SB-02 10 - 12 08/08/91	USTs #1 through #4 SB-03 8 - 10 08/08/91	USTs #1 through #4 SB-03 14 - 16 08/08/91	USTs #1 through #4 SB-04 6 - 8 08/31/91	USTs #1 through #4 SB-04 14 - 16 08/31/91	P1-B42 4 - 6 09/07/90	P1-B43 2- 4 09/07/90	P1-B44 2- 4 09/07/90	P1-B45 4 - 6 09/07/90	P1-B46 2- 4 09/07/90
Volatile Organics											
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	<0.0010	<0.0010	<0.20	<0.0010	<1.0	<0.0010	< 0.010	< 0.010	0.025	0.13	< 0.010
Cyclohexane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	<0.0010	<0.0010	<0.20	<0.0010	<1.0	<0.0010	< 0.010	< 0.010	< 0.010	0.045	< 0.010
Methyl cyclohexane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	<0.0010	<0.0010	<0.20	<0.0010	<1.0	<0.0010	< 0.010	< 0.010	0.03	0.14	< 0.010
Total Xylenes	<0.0010	<0.0010	1	0.007	6.3	<0.0010	0.011	< 0.010	0.045	0.26	< 0.010

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TABLE I-6

COMPARISON OF SVOC COPCs TO FACILITY-SPECIFIC GENERIC MDEQ CRITERIA WITHOUT GSIP CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	Units	Soil Saturation Concentration Screening Levels CSAT	Groundwater Contact Protection GCCP	Industrial Direct Contact IDC	Industrial Particulate Soil Inhalation Criteria IPSIC	Industrial Soil Volatilization to Indoor Air Inhalation ISVIA	Finite VSIC for 2 Meter Source Thickness IVSIC2	Finite VSIC for 5 Meter Source Thickness IVSIC5	Infinite Source Volatile Soil Inhalation Criteria IVSICI	Minimum Criteria	Screening Level	Maximum Concentration	Maximum Concentration Exceeds Screening Level?	Center Street Area MW-145WT 7 - 17 06/08/95
Semivolatile Organics														
4-Chloroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	0.053	Yes/NA	<0.22
Biphenyl	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	0.12	Yes/NA	NA
Carbazole	mg/kg		820	2400						820.00	820.00	3.6	No	0.12
Dibenzofuran	mg/kg									NA	NA	2.4	Yes/NA	0.054
Fluoranthene	mg/kg		730	130000	4100000	1000000	880000	880000	890000	730.00	730.00	21	No	1.5
Naphthalene	mg/kg		2100	52000	88000	470	350	350	350	350.00	350.00	1.1	No	<0.22
Phenanthrene	mg/kg		1100	5200	2900	5100	190	190	190	190.00	190.00	23	No	1

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COMPARISON OF SVOC COPCs TO FACILITY-SPECIFIC GENERIC MDEQ CRITERIA WITHOUT GSIP CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	Center Street Area SB-319 14 - 16 06/13/95	Central Type III Landfill SB-312 8 - 10 06/06/95	CTC Parking Lot PL-1 0.75 - 1.21 08/10/01	CTC Parking Lot PL-2 0.75 - 1.67 08/10/01	CTC Parking Lot PL-3 0.67 - 1.67 08/10/01	CTC Parking Lot PL-4 0.75 - 1.5 08/10/01	CTC Parking Lot VE-1 0.75 - 1.58 08/10/01	CTC Parking Lot VE-2 0.92 - 1.67 08/10/01	Drum Remediation/ Wetland Area MW-126WT 14 - 16 02/08/95	Drum Remediation/ Wetland Area WMB-1 3 - 3.5 01/22/97	Drum Remediation/ Wetland Area WMB-2 3 - 3.5 01/22/97	Drum Remediation/ Wetland Area WMB-3 5 - 5.5 01/22/97	Drum Remediation/ Wetland Area WMB-4 0.5 - 1 01/22/97
Semivolatile Organics													
4-Chloroaniline	<26	<0.20	<0.42	<0.36 [<0.41]	<0.37	<0.36	<0.40	<0.37	<0.19	<0.19	<0.23	<0.20	<0.24
Biphenyl	NA	NA	<0.42	<0.36 [<0.41]	<0.37	<0.36	<0.40	<0.37	NA	NA	NA	NA	NA
Carbazole	<26	0.066	<0.42	<0.36 [<0.41]	<0.37	<0.36	<0.40	<0.37	<0.19	<0.19	<0.23	<0.20	<0.24
Dibenzofuran	<26	0.084	<0.42	<0.36 [<0.41]	<0.37	0.043	<0.40	<0.37	<0.19	<0.19	<0.23	<0.20	<0.24
Fluoranthene	<26	0.23	<0.42	0.060 [0.18]	<0.37	<0.36	<0.40	0.21	<0.19	0.29	0.38	<0.20	<0.24
Naphthalene	<26	0.31	<0.42	0.055 [<0.41]	<0.37	0.15	0.049	0.037	<0.19	<0.19	<0.23	<0.20	<0.24
Phenanthrene	7.7	0.35	<0.42	0.11 [0.14]	<0.37	0.28	<0.40	0.11	<0.19	0.16	0.3	<0.20	<0.24

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TABLE I-6

COMPARISON OF SVOC COPCs TO FACILITY-SPECIFIC GENERIC MDEQ CRITERIA WITHOUT GSIP CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area	Drum Remediation/ Wetland Area	Drum Remediation/ Wetland Area	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill
Location ID	WMB-5	WMB-6	SB-313	SB-389	SB-390	SB-391	SB-392	SB-393	SB-394	SB-395	SB-396	SB-397	SB-398	SB-399
Sample Depth (ft bgs):	0.5 - 1	4 - 4.5	4 - 6	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5
Date Collected:	01/22/97	01/22/97	06/07/95	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00	08/11/00
Semivolatile Organics														
4-Chloroaniline	<0.23	<0.22	<0.74	<0.39	<0.58	<0.47	<0.45	<0.44	<0.44	<0.44	<0.60	<0.46	<0.40	<0.41
Biphenyl	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	<0.23	<0.22	<0.74	<0.39	<0.58	<0.47	<0.45	0.079	<0.44	<0.44	0.22	<0.46	<0.40	<0.41
Dibenzofuran	<0.23	<0.22	<0.74	0.075	<0.58	<0.47	<0.45	<0.44	<0.44	<0.44	0.23	0.061	<0.40	<0.41
Fluoranthene	<0.23	<0.22	<0.74	0.13	<0.58	<0.47	0.064	1.5	0.059	<0.44	0.16	<0.46	0.18	0.085
Naphthalene	<0.23	<0.22	<0.74	0.27	<0.58	<0.47	<0.45	<0.44	<0.44	<0.44	0.88	0.19	<0.40	<0.41
Phenanthrene	<0.23	<0.22	<0.74	0.41	<0.58	<0.47	<0.45	0.55	<0.44	<0.44	0.64	0.19	0.093	<0.41

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COMPARISON OF SVOC COPCs TO FACILITY-SPECIFIC GENERIC MDEQ CRITERIA WITHOUT GSIP CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area	Green Point Landfill	Green Point Landfill	Green Point Landfill	Green Point Landfill	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area
Location ID	SB-400	SB-406	SB-412	SB-418	SB-01A	SB-01A	SB-325	SB-362	SB-362	SB-362	SB-363	SB-363	SB-363
Sample Depth (ft bgs):	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	1 - 3	5 - 7	8 - 10	0 - 2	4 - 6	8 - 10	0 - 2	4 - 6	8 - 10
Date Collected:	08/11/00	08/11/00	08/11/00	08/11/00	08/23/01	08/23/01	06/14/95	09/28/95	09/28/95	09/28/95	09/28/95	09/28/95	09/28/95
Semivolatile Organics													
4-Chloroaniline	<0.53	<0.36	<0.58	<0.43 [<0.46]	<0.35	<0.35	<16	<0.77	<0.72	<0.21	<1.8	<1.8	<2.0
Biphenyl	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	<0.53	<0.36	<0.58	<0.43 [<0.46]	<0.35	<0.35	<16	<0.77	<0.72	<0.21	<1.8	<1.8	<2.0
Dibenzofuran	<0.53	0.13	<0.58	<0.43 [<0.46]	<0.35	<0.35	<16	<0.77	<0.72	<0.21	<1.8	<1.8	<2.0
Fluoranthene	<0.53	0.085	<0.58	<0.43 [<0.46]	<0.35	<0.35	<16	<0.77	0.42	0.027	0.51	<1.8	<2.0
Naphthalene	<0.53	0.47	0.16	<0.43 [<0.46]	0.045	0.11	<16	<0.77	0.39	0.39	<1.8	<1.8	0.4
Phenanthrene	<0.53	0.36	0.12	<0.43 [<0.46]	0.05	0.095	<16	<0.77	0.26	0.031	0.57	0.51	0.68

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COMPARISON OF SVOC COPCs TO FACILITY-SPECIFIC GENERIC MDEQ CRITERIA WITHOUT GSIP CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	Parking Lot Area/Buffer Basin	Parking Lot Area/Buffer Basin	Parking Lot Area/Buffer Basin	Parking Lot Area/Buffer Basin	Parking Lot Area/Buffer Basin	Previous Metal Feedstock
Location ID	US-1	US-2	US-3	US-4	US-6	US-7	US-8	BH9	BH9	BH10	BH10	SB-354	FS-1
Sample Depth (ft bgs):	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	1 - 2	2 - 4	1 - 2	2 - 4	0 - 2	0 - 1
Date Collected:	06/12/95	06/12/95	06/12/95	06/12/95	06/12/95	06/12/95	06/12/95	03/06/07	03/06/07	03/06/07	03/06/07	06/28/95	06/12/95
Semivolatile Organics													
4-Chloroaniline	<0.83	<0.44	<0.17	<0.17	0.048	<0.17	<0.17	<3.2	<0.17	<0.17	<0.16	<0.18	<0.71
Biphenyl	NA	NA	NA	NA	NA	NA	NA	<5.6	0.062	<0.30	<0.28	NA	NA
Carbazole	<0.83	<0.44	0.076	<0.17	<0.34	<0.17	<0.17	3.6	<0.31	<0.30	<0.28	<0.18	<0.71
Dibenzofuran	0.15	<0.44	0.096	0.019	0.055	0.035	0.1	2.4	0.069	<0.30	0.022	<0.18	<0.71
Fluoranthene	1.1	0.4	0.58	0.065	0.18	0.05	0.23	21	0.14	0.038	0.082	<0.18	0.21
Naphthalene	<0.83	<0.44	0.11	0.075	0.19	0.11	0.35	<5.6	0.17	0.035	0.17	0.039	0.2
Phenanthrene	1.2	0.25	0.69	0.076	0.22	0.098	0.27	23	0.32	0.072	0.13	0.05	0.17

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	Previous Metal Feedstock FS-2 0 - 1 06/12/95	Previous Metal Feedstock FS-3 0 - 1 06/12/95	Previous Metal Feedstock FS-4 0 - 1 06/12/95	Previous Metal Feedstock FS-5 0 - 1 06/12/95	Previous Metal Feedstock FS-6 0 - 1 06/12/95	Previous Metal Feedstock FS-7 0 - 1 06/12/95	Previous Metal Feedstock FS-8 0 - 1 06/12/95	Previous Metal Feedstock SB-304 0 - 1 02/08/95	Previous Metal Feedstock SB-304 2 - 4 02/08/95	Previous Metal Feedstock SB-304 6 - 8 02/08/95	Previous Metal Feedstock SB-305 0 - 1 02/08/95
Semivolatile Organics											
4-Chloroaniline	<0.18	<0.18	<0.18	<0.18	<0.17 [<0.17]	0.053	<0.17	<0.18	<0.35	<0.21	<0.19
Biphenyl	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	<0.18	<0.18	<0.18	<0.18	<0.17 [<0.17]	<0.18	<0.17	<0.18	<0.18	<0.21	<0.19
Dibenzofuran	<0.18	0.044	0.046	<0.18	<0.17 [0.046]	0.047	0.04	0.019	<0.18	<0.21	0.027
Fluoranthene	<0.18	0.067	0.04	<0.18	<0.17 [<0.17]	<0.18	<0.17	0.074	0.095	<0.21	<0.19
Naphthalene	0.093	0.15	0.17	0.097	0.086 [0.14]	0.17	0.16	0.048	<0.18	0.042	0.097
Phenanthrene	0.087	0.13	0.11	0.061	0.060 [0.11]	0.1	0.11	0.092	0.056	0.047	0.078

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TABLE I-6

COMPARISON OF SVOC COPCs TO FACILITY-SPECIFIC GENERIC MDEQ CRITERIA WITHOUT GSIP CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area	Previous Metal Feedstock	Previous Metal Feedstock	Previous Metal Feedstock	Previous Metal Feedstock	Previously Proposed Type III Landfill Area	Previously Proposed Type III Landfill Area	Previously Proposed Type III Landfill Area	Previously Proposed Type III Landfill Area	Previously Proposed Type III Landfill Area	Previously Proposed Type III Landfill Area
Location ID	SB-305	SB-305	SB-305	SB-352	TP1	TP1	TP2	TP2	TP3	TP3
Sample Depth (ft bgs):	2 - 4	6 - 8	10 - 12	0 - 2	0 - 4	4 - 8	0 - 4	4 - 8	0 - 4	4 - 8
Date Collected:	02/08/95	02/08/95	02/08/95	06/28/95	05/22/98	05/22/98	05/22/98	05/22/98	05/22/98	05/22/98
Semivolatile Organics										
4-Chloroaniline	<0.18	<0.18	<0.23	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Biphenyl	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	<0.18	<0.18	<0.23	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Dibenzofuran	<0.18	0.058	<0.23	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Fluoranthene	0.032	0.072	<0.23	0.35	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Naphthalene	0.085	0.63	<0.23	0.049	0.69	0.87	0.7	0.76	0.47	0.88
Phenanthrene	0.076	0.28	<0.23	0.13	0.47	0.63	0.53	0.49	0.35	0.53

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COMPARISON OF SVOC COPCs TO FACILITY-SPECIFIC GENERIC MDEQ CRITERIA WITHOUT GSIP CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area	Previously Proposed Type III Landfill Area	Previously Proposed Type III Landfill Area	Previously Proposed Type III Landfill Area	Previously Proposed Type III Landfill Area	Previously Proposed Type III Landfill Area	Previously Proposed Type III Landfill Area	Previously Proposed Type III Landfill Area	Primary Settling Pond	Primary Settling Pond	Primary Settling Pond
Location ID	TP4	TP4	TP5	TP5	TP6	TP6	TP7	BH7	BH7	BH8
Sample Depth (ft bgs):	0 - 4	4 - 8	0 - 4	4 - 8	0 - 4	4 - 8	0 - 4	0 - 2	2 - 4	0 - 2
Date Collected:	05/22/98	05/22/98	05/22/98	05/22/98	05/22/98	05/22/98	05/22/98	03/06/07	03/06/07	03/06/07
Semivolatile Organics										
4-Chloroaniline	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.17	<0.20	<0.16
Biphenyl	NA	NA	NA	NA	NA	NA	NA	<0.29	0.12	0.055
Carbazole	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.29	<0.35	<0.29
Dibenzofuran	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	0.041	0.24	0.09
Fluoranthene	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	0.081	0.16	0.051
Naphthalene	0.47	0.92	0.5	0.66	1.1	1.1	0.37	0.12	0.74	0.24
Phenanthrene	0.33	0.57	0.46	0.45	0.69	0.73	<0.33	0.13	0.68	0.2

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COMPARISON OF SVOC COPCs TO FACILITY-SPECIFIC GENERIC MDEQ CRITERIA WITHOUT GSIP CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area	Primary Settling Pond	Primary Settling Pond	Railyard Area	Railyard Area	Railyard Area	Railyard Area	Railyard Area	Railyard Area	Railyard Area	Railyard Area	Railyard Area	Railyard Area
Location ID	BH8	NS-1	BH11	BH11	BH12	BH12	NS-RS-4	RS-1	RS-2	RS-3	RS-4	RS-6
Sample Depth (ft bgs):	2 - 4	0 - 14	0 - 2	2 - 4	0 - 2	2 - 4	2.5 - 3	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1
Date Collected:	03/06/07	06/23/95	03/06/07	03/06/07	03/06/07	03/06/07	06/13/95	06/13/95	06/13/95	06/13/95	06/13/95	06/13/95
Semivolatile Organics												
4-Chloroaniline	<0.18	<0.24	<0.68	<0.18	<0.17 [<0.17]	<0.17	<0.21	<0.17	<0.90	<0.18	<0.17 [<0.35]	<0.17
Biphenyl	0.11	NA	<1.2	<0.31	<0.30 [<0.30]	<0.29	NA	NA	NA	NA	NA	NA
Carbazole	<0.31	<0.24	<1.2	<0.31	<0.30 [<0.30]	<0.29	<0.21	<0.17	<0.90	<0.18	<0.17 [<0.35]	<0.17
Dibenzofuran	0.16	<0.24	<1.2	<0.31	<0.30 [<0.30]	<0.29	<0.21	0.19	<0.90	0.036	0.25 [0.17]	<0.17
Fluoranthene	0.084	<0.24	0.58	0.0091	0.073 [0.049]	0.13	<0.21	0.32	0.41	0.23	0.27 [0.17]	0.15
Naphthalene	0.45	<0.24	0.15	0.013	0.014 [0.025]	0.064	<0.21	0.49	0.26	0.089	0.65 [0.45]	<0.17
Phenanthrene	0.33	<0.24	0.45	<0.31	0.062 [0.041]	0.11	<0.21	0.6	0.33	0.17	0.55 [0.35]	0.09

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area	Railyard Area	Railyard Area	Stormwater Pond	Stormwater Pond	Stormwater Pond	Stormwater Pond	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7
Location ID	RS-7	RS-8	NS-7	NS-8	NS-9	NS-10	BBL-MW1	BBL-MW2	BBL-MW3	BBL-MW4	BBL-MW5	BBL-SB1	BBL-SB1	BBL-SB2	BBL-SB2	BBL-SB3
Sample Depth (ft bgs):	0 - 1	0 - 1	0 - 4.5	0 - 10	0 - 4.5	0 - 10	4 - 6	4 - 6	6 - 8	4 - 6	4 - 6	4 - 6	8 - 10	0 - 2	8 - 10	6 - 8
Date Collected:	06/13/95	06/13/95	06/21/95	06/21/95	06/21/95	06/21/95	05/02/96	05/02/96	05/02/96	05/03/96	05/03/96	05/06/96	05/06/96	05/07/96	05/07/96	05/07/96
Semivolatile Organics																
4-Chloroaniline	<0.18	<0.17	<0.21	<0.24	<0.21	<0.22	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	<0.18	<0.17	<0.21	<0.24	<0.21	<0.22	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	0.37	0.067	<0.21	<0.24	<0.21	<0.22	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	0.24	0.32	<0.21	<0.24	<0.21	<0.22	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	1	0.17	<0.21	<0.24	<0.21	<0.22	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	0.87	0.27	<0.21	<0.24	<0.21	<0.22	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area	UST 7	UST 7	UST 7	UST 7	UST 7	UST 7	USTs #1 through #4	USTs #1 through #4	USTs #1 through #4	USTs #1 through #4	USTs #1 through #4	USTs #1 through #4
Location ID	BBL-SB3	BBL-SB4	BBL-SB4	BBL-SB5	BBL-SB5	SB-351	SB-02	SB-02	SB-03	SB-03	SB-04	SB-04
Sample Depth (ft bgs):	8 - 10	0 - 2	8 - 10	0 - 2	20 - 22	0 - 2	6 - 8	10 - 12	8 - 10	14 - 16	6 - 8	14 - 16
Date Collected:	05/07/96	05/07/96	05/07/96	05/06/96	05/06/96	06/27/95	08/08/91	08/08/91	08/08/91	08/08/91	08/31/91	08/31/91
Semivolatile Organics												
4-Chloroaniline	NA	NA	NA	NA	NA	<0.37	NA	NA	NA	NA	NA	NA
Biphenyl	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	<0.37	NA	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	NA	NA	NA	<0.37	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	<0.37	<0.033	<0.033	<0.33	<0.033	<1.3	<0.017
Naphthalene	NA	NA	NA	NA	NA	<0.37	<0.033	<0.033	<0.33	<0.033	<1.3	<0.017
Phenanthrene	NA	NA	NA	NA	NA	<0.37	<0.033	<0.033	5.2	<0.033	23	<0.017

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TABLE I-7

COMPARISON OF INORGANIC COPCs TO FACILITY-SPECIFIC GENERIC MDEQ CRITERIA WITHOUT GSIP CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	Units	Soil Saturation Concentration Screening Levels CSAT	Groundwater Contact Protection GCCP	Industrial Direct Contact IDC	Industrial Particulate Soil Inhalation Criteria IPSIC	Industrial Soil Volatilization to Indoor Air Inhalation ISVIA	Finite VSIC for 2 Meter Source Thickness IVSIC2	Finite VSIC for 5 Meter Source Thickness IVSIC5	Infinite Source Volatile Soil Inhalation Criteria IVSICI	Minimum Criteria	Screening Level	Maximum Detection	Maximum Concentration Exceeds Screening Level?
Inorganics													
Aluminum	mg/kg		1000000	370000		{NLV}	{NLV}	{NLV}	{NLV}	370000	370000	20900	No
Antimony	mg/kg		49000	670	5900	{NLV}	{NLV}	{NLV}	{NLV}	670	670	22.30	No
Arsenic	mg/kg		2000	37	910	{NLV}	{NLV}	{NLV}	{NLV}	37	37	23.60	No
Cadmium	mg/kg		230000	2100	2200	{NLV}	{NLV}	{NLV}	{NLV}	2100	2100	6.38	No
Calcium	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	275000	Yes/NA
Chromium Total	mg/kg		140000	9200	240					240	240	1110	Yes
Chromium VI (Hexavalent)	mg/kg		140000	9200	240					240	240	ND	No/ND
Cobalt	mg/kg		48000	9000	5900	{NLV}	{NLV}	{NLV}	{NLV}	5900	5900	143	No
Copper	mg/kg		1000000	73000	59000	{NLV}	{NLV}	{NLV}	{NLV}	59000	59000	44700	No
Cyanide (total)	mg/kg		250	250	250	{NLV}	{NLV}	{NLV}	{NLV}	250	250	3	No
Iron	mg/kg		1000000	580000		{NLV}	{NLV}	{NLV}	{NLV}	580000	580000	87400	No
Lead	mg/kg			900	44000					900	900	1780	Yes
Magnesium	mg/kg		1000000	1000000	2900000	{NLV}	{NLV}	{NLV}	{NLV}	1000000	1000000	20200	No
Manganese	mg/kg		180000	90000	1500					1500	1500	26600	Yes
Mercury	mg/kg		47	580	8800	89 {B,Z}	62 {B,Z}	62 {B,Z}	62 {B,Z}	47.00	47.00	0.69	No
Nickel	mg/kg		1000000	150000	16000	{NLV}	{NLV}	{NLV}	{NLV}	16000	16000	3400	No
Potassium	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	12100	Yes/NA
Selenium	mg/kg		78000	9600	59000	{NLV}	{NLV}	{NLV}	{NLV}	9600	9600	4.31	No
Silver	mg/kg		200000	9000	2900	{NLV}	{NLV}	{NLV}	{NLV}	2900	2900	1.38	No
Sodium	mg/kg		1000000	1000000		{NLV}	{NLV}	{NLV}	{NLV}	1000000	1000000	5390	No
Thallium	mg/kg		15000	130		{NLV}	{NLV}	{NLV}	{NLV}	130	130	5.90	No
Zinc	mg/kg		1000000	630000		{NLV}	{NLV}	{NLV}	{NLV}	630000	630000	5560	No

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TABLE I-7

COMPARISON OF INORGANIC COPCs TO FACILITY-SPECIFIC GENERIC MDEQ CRITERIA WITHOUT GSIP CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	CTC Parking Lot PL-1 0.75 - 1.21 08/10/01	CTC Parking Lot PL-2 0.75 - 1.67 08/10/01	CTC Parking Lot PL-3 0.67 - 1.67 08/10/01	CTC Parking Lot PL-4 0.75 - 1.5 08/10/01	CTC Parking Lot VE-1 0.75 - 1.58 08/10/01	CTC Parking Lot VE-2 0.92 - 1.67 08/10/01	Drum Remediation/ Wetland Area MW-126WT 14 - 16 02/08/95	Drum Remediation/ Wetland Area WMB-1 3 - 3.5 01/22/97	Drum Remediation/ Wetland Area WMB-2 3 - 3.5 01/22/97	Drum Remediation/ Wetland Area WMB-3 5 - 5.5 01/22/97	Drum Remediation/ Wetland Area WMB-4 0.5 - 1 01/22/97	Drum Remediation/ Wetland Area WMB-5 0.5 - 1 01/22/97
Inorganics												
Aluminum	20,900	13,600 [14,900]	4,300	6,100	1,200	5,400	NA	5,120	8,300	4,480	14,700	9,990
Antimony	<2.50	1.30 [1.40]	1.8	1.2	<0.500	1	<0.286	<0.295	1.46	<0.303	0.536	<0.346
Arsenic	9.7	2.90 [3.00]	3.2	4	1.6	4.7	2.33	2.25	3.68	1.68	5.8	6.9
Cadmium	<0.500	<0.100 [<0.100]	<0.100	0.66	<0.100	0.51	0.0783	0.0743	0.509	0.0787	0.341	0.305
Calcium	83,300	68,900 [87,900]	67,700	13,000	192,000	16,000	NA	5,750	85,600	7,250	18,000	17,300
Chromium Total	190	110 [110]	200	40	4.9	28	23.8	7.96	49.5	7.73	22.6	16.4
Chromium VI (Hexavalent)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	61	27.0 [26.0]	19	74	120	94	9.37	<5.90	<7.07	<6.06	<7.17	<6.92
Copper	100	34.0 [31.0]	36	62	6.7	74	13.9	5.84	104	6.16	18	13.4
Cyanide (total)	<0.500	<0.500 [1.10]	<0.500	<0.500	<0.500	<0.500	<0.290	<0.180	<0.210	<0.180	<0.220	<0.210
Iron	85,400	28,100 [35,200]	50,000	27,900	6,900	16,900	NA	6,280	44,600	6,800	14,300	12,000
Lead	6.6	11.0 [12.0]	7.7	74	10	120	5.33	3.66	233	4.11	13.4	12.4
Magnesium	9,100	5,800 [7,700]	1,800	700	3,400	3,000	NA	1,650	6,940	2,100	6,860	6,320
Manganese	11,600	6,600 [7,700]	10,700	1,800	150	1,300	NA	204	1,170	114	299	351
Mercury	NA	<0.100 [<0.100]	<0.100	<0.100	<0.100	<0.100	<0.0572	<0.0590	<0.0707	<0.0606	0.0772	<0.0692
Nickel	80	22.0 [22.0]	24	34	3,400	51	20.9	5.28	20.5	5.03	14.5	11.4
Potassium	2,600	1,600 [1,800]	2,400	980	<500	660	NA	827	12,100	721	2,540	1,650
Selenium	<2.50	<2.50 [<2.50]	<2.50	<0.500	<0.500	0.96	<0.286	<0.295	<0.707	<0.303	<0.359	<0.346
Silver	<2.50	<2.50 [<2.50]	<2.50	<0.500	<0.500	<0.500	<0.286	<0.295	<0.353	<0.303	<0.359	<0.346
Sodium	780	390 [360]	870	380	200	180	NA	<590	925	<606	<717	<692
Thallium	<5.00	<5.00 [<5.00]	<5.00	3.6	1.8	3.4	<0.286	<0.295	0.883	<0.303	<0.359	<0.346
Zinc	16	19.0 [20.0]	25	330	18	150	31.6	14.7	255	24.3	52.8	44.2

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TABLE I-7

COMPARISON OF INORGANIC COPCs TO FACILITY-SPECIFIC GENERIC MDEQ CRITERIA WITHOUT GSIP CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	Drum Remediation/ Wetland Area WMB-6 4 - 4.5 01/22/97	Green Point Landfill SB-389 0 - 0.5 08/11/00	Green Point Landfill SB-390 0 - 0.5 08/11/00	Green Point Landfill SB-391 0 - 0.5 08/11/00	Green Point Landfill SB-392 0 - 0.5 08/11/00	Green Point Landfill SB-393 0 - 0.5 08/11/00	Green Point Landfill SB-394 0 - 0.5 08/11/00	Green Point Landfill SB-395 0 - 0.5 08/11/00	Green Point Landfill SB-396 0 - 0.5 08/11/00	Green Point Landfill SB-397 0 - 0.5 08/11/00	Green Point Landfill SB-398 0 - 0.5 08/11/00	Green Point Landfill SB-399 0 - 0.5 08/11/00	Green Point Landfill SB-400 0 - 0.5 08/11/00
Inorganics													
Aluminum	7,200	8,760	7,680	6,200	6,930	10,700	5,940	7,810	11,500	8,550	5,580	6,070	6,350
Antimony	<0.340	<7.00	<10.5	<8.50	<8.10	0.83	<8.10	<8.10	<11.0	<8.40	<7.30	<7.50	<9.60
Arsenic	4.83	6	4.2	3.5	3.4	3.6	2.6	7.5	6	5.1	5	3.7	4.6
Cadmium	0.123	<0.580	<0.870	0.14	<0.680	<0.670	<0.670	<0.670	<0.920	<0.700	<0.610	<0.620	<0.800
Calcium	51,900	13,000	7,070	5,030	47,400	72,800	2,880	17,200	16,100	12,300	2,160	23,000	12,500
Chromium Total	11.3	44.5	12.9	11.6	13.1	184	10	14.1	28.2	17.6	10.1	83.7	12.6
Chromium VI (Hexavalent)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	7.82	3.2	3.4	3.3	4.2	3.1	3	4.9	4.4	3.7	3.8	3	4.6
Copper	6.28	30	12.7	13.4	10.7	501	6.2	11.7	28.3	12.6	365	15.1	12.6
Cyanide (total)	<0.200	0.33	<0.870	<0.710	<0.680	2.7	<0.670	<0.670	<0.920	<0.700	<0.610	<0.620	<0.800
Iron	11,900	27,000	9,340	8,210	10,600	29,100	8,390	13,200	28,000	17,900	10,900	18,600	10,800
Lead	4.43	20.9	11.9	10.4	9.3	64.5	7.6	12.2	27.8	13	20.9	37.2	12.1
Magnesium	12,800	1,670	3,170	2,690	12,500	3,170	1,640	7,820	5,940	5,310	1,600	2,020	5,420
Manganese	323	1930	151	125	208	7840	61.1	392	404	281	217	3550	220
Mercury	<0.0681	0.017	0.037	0.034	0.033	0.017	0.015	0.037	<0.180	<0.140	0.019	0.016	0.051
Nickel	11.1	14.5	10.3	10	11.9	9.4	7.7	11.7	20.1	13.7	16.4	9.9	11.5
Potassium	1,320	1,230	1,100	1,010	1,290	1,160	708	1,360	1,210	938	427	519	885
Selenium	<0.340	2.1	1.1	0.61	0.63	1.1	<0.670	0.74	1.9	0.91	0.64	1.8	0.74
Silver	<0.340	<1.20	<1.70	<1.40	<1.40	0.55	<1.30	<1.30	<1.80	<1.40	0.37	<1.20	<1.60
Sodium	<681	149	134	<709	332	548	179	<672	426	316	<608	111	177
Thallium	<0.340	3.6	0.91	<1.40	1.1	2.3	<1.30	<1.30	1.9	1.6	<1.20	5.9	1.4
Zinc	23.3	41.9	35.4	33.7	27.9	103	20.3	38.8	432	84.1	43	34.6	37

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TABLE I-7

COMPARISON OF INORGANIC COPCs TO FACILITY-SPECIFIC GENERIC MDEQ CRITERIA WITHOUT GSIP CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area	Green Point Landfill	Green Point Landfill	Green Point Landfill	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area
Location ID	SB-406	SB-412	SB-418	SB-01A	SB-01A	SB-350	SB-362	SB-362	SB-362	SB-363	SB-363	SB-363
Sample Depth (ft bgs):	0 - 0.5	0 - 0.5	0 - 0.5	1 - 3	5 - 7	4 - 6	0 - 2	4 - 6	8 - 10	0 - 2	4 - 6	8 - 10
Date Collected:	08/11/00	08/11/00	08/11/00	08/23/01	08/23/01	06/27/95	09/28/95	09/28/95	09/28/95	09/28/95	09/28/95	09/28/95
Inorganics												
Aluminum	7,940	13,400	10,400 [8,960]	2,490	2,120	10,500	7120	3030	3510	5020	3080	5190
Antimony	0.6	<10.6	<7.90 [<8.30]	<6.40	<6.40	<0.560	9.16	4.27	0.378	17.4	22.3	0.54
Arsenic	3.9	6.8	6.80 [7.50]	1.6	2.3	3.8	3.62	23.6	3.7	4.67	4.11	1.05
Cadmium	<0.540	0.28	0.220 [0.200]	0.051	0.063	0.67	0.128	0.0336	0.125	0.379	0.119	0.0441
Calcium	35,500	25900	24,700 [22,900]	10,800	4,160	27,700	35400	15600	8650	49000	73600	12800
Chromium Total	32.9	24.4	17.9 [15.9]	7.1	43.1	78.4	52.1	109	8.96	77	147	11.8
Chromium VI (Hexavalent)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	4	7.8	5.90 [5.60]	1.4	2	7.7	7.05	12.6	<6.27	6.96	<5.50	<6.12
Copper	25.8	21.9	14.5 [13.6]	5.8	15.8	63.4	204	661	6.19	202	44,700	7.76
Cyanide (total)	0.35	<0.880	<0.660 [<0.690]	<0.530	<0.530	0.14	0.43	<0.270	<0.310	0.77	0.81	<0.310
Iron	22,900	21,700	15,400 [14,800]	6,810	19,900	31,400	43,300	16,200	8,360	34,900	43,100	10,700
Lead	30.9	17.4	12.8 [12.3]	4	3.1	9.2	1,020	93.2	13.2	1,320	1,780	26.5
Magnesium	11,400	13200	11,800 [10,600]	2,080	646	1580	11800	787	4630	5730	8400	7740
Manganese	678	341	373 [419]	289	192	5690	771	1240	130	1270	452	210
Mercury	<0.110	0.066	0.0480 [0.0410]	<0.110	<0.110	<0.0600	0.101	<0.0542	<0.0627	0.0616	<0.0550	<0.0612
Nickel	15.5	21.3	15.0 [14.9]	5.4	38	13.3	63.4	105	8.18	104	55.7	10.3
Potassium	1,210	2,290	1,780 [1,350]	488	219	1,070	1,610	<542	<627	901	<550	809
Selenium	1.1	<0.880	<0.660 [<0.690]	<0.530	0.7	1.9	<0.587	<2.17	<0.314	<0.558	<0.550	<0.306
Silver	<1.10	<1.80	<1.30 [<1.40]	<1.10	<1.10	1	<0.587	<2.17	<0.314	<0.558	1.38	<0.306
Sodium	300	<884	<656 [<695]	543	315	831	<587	<542	<627	<558	<550	<612
Thallium	1.7	2	1.00 [1.50]	0.75	<1.10	<0.560	<0.294	<0.271	<0.314	<0.279	<0.275	<0.306
Zinc	403	114	55.6 [53.0]	16.1	21	19.7	58.6	22.1	17.2	108	5,560	17.5

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TABLE I-7

COMPARISON OF INORGANIC COPCs TO FACILITY-SPECIFIC GENERIC MDEQ CRITERIA WITHOUT GSIP CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	LNAPL Assessment Area	Parking Lot Area/Buffer Basin	Parking Lot Area/Buffer Basin	Parking Lot Area/Buffer Basin	Parking Lot Area/Buffer Basin	Parking Lot Area/Buffer Basin	Parking Lot Area/Buffer Basin
Location ID	US-1	US-2	US-3	US-4	US-6	US-7	US-8	BH9	BH9	BH10	BH10	SB-354	BH10
Sample Depth (ft bgs):	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	1 - 2	2 - 4	1 - 2	2 - 4	0 - 2	0 - 2
Date Collected:	06/12/95	06/12/95	06/12/95	06/12/95	06/12/95	06/12/95	06/12/95	03/06/07	03/06/07	03/06/07	03/06/07	06/28/95	03/06/07
Inorganics													
Aluminum	5,040	3,880	2,930	1,440	2,680	1250	2730	NA	NA	NA	NA	2,780	NA
Antimony	0.405	0.5	0.556	0.721	0.624	0.319	0.574	<0.170	<0.190	<0.180	<0.170	0.55	<0.180
Arsenic	4.54	3.7	2.82	1.94	9.59	2.17	2.41	2.9	2.3	3.2	1.2	3.5	3.2
Cadmium	0.157	0.141	0.1	0.27	0.225	0.418	0.288	0.22	0.18	0.45	0.58	0.5	0.45
Calcium	13300	12100	21900	275000	19400	34100	11900	NA	NA	NA	NA	74,200	NA
Chromium Total	49.5	18.6	15.3	30	38.7	8.87	31.8	18.9	7.1	108	142	12.6	108
Chromium VI (Hexavalent)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	<6.29	<5.38	<5.26	<5.28	<5.16	<5.13	<5.07	2.7	2.6	3.6	3.7	3.7	3.6
Copper	20.3	14.2	18.6	18.7	28.2	11	22.9	41	11.6	26.7	37.6	33.4	26.7
Cyanide (total)	<0.310	<0.270	<0.260	<0.260	<0.260	<0.260	<0.250	NA	NA	NA	NA	<0.110	NA
Iron	9,970	11,600	11,300	16,900	18,800	6,570	19,600	NA	NA	NA	NA	18,600	NA
Lead	16.4	14.7	13	33.5	49.2	12.6	40.8	31	10.4	7.4	7.1	7.4	7.4
Magnesium	16,300	10,600	8,680	7,090	5,430	7,420	12,600	NA	NA	NA	NA	5880	NA
Manganese	358	399	375	267	985	171	693	965	255	9,200	11,900	474	9,200
Mercury	<0.0629	<0.0538	<0.0526	<0.0528	<0.0516	<0.0513	<0.0507	<0.0430	0.019	<0.0450	<0.0420	<0.0500	<0.0450
Nickel	11.9	13.1	15.1	47.5	28.4	17.7	29.6	12.8	6.5	10.5	8.8	10.4	10.5
Potassium	871	600	543	<528	<516	<513	<507	NA	NA	NA	NA	412	NA
Selenium	<0.314	<0.269	<0.263	<0.528	<0.258	<0.256	<0.253	0.2	0.21	<0.180	<0.170	<0.270	<0.180
Silver	<0.629	<0.538	<0.526	<0.264	<0.258	<0.256	<0.253	0.055	<0.0930	0.11	0.28	0.22	0.11
Sodium	<629	<538	<526	<528	<516	<513	<507	NA	NA	NA	NA	991	NA
Thallium	<0.314	<0.269	<0.263	<0.264	<0.258	<0.256	<0.253	0.033	0.059	0.046	0.031	<0.550	0.046
Zinc	49.1	38.7	24.7	54.3	51.8	58.6	61.8	38.2	13.8	18.3	17.9	14.2	18.3

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TABLE I-7

COMPARISON OF INORGANIC COPCs TO FACILITY-SPECIFIC GENERIC MDEQ CRITERIA WITHOUT GSIP CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area	Parking Lot Area/Buffer Basin	Previous Metal Feedstock FS-1	Previous Metal Feedstock FS-2	Previous Metal Feedstock FS-3	Previous Metal Feedstock FS-4	Previous Metal Feedstock FS-5	Previous Metal Feedstock FS-6	Previous Metal Feedstock FS-7	Previous Metal Feedstock FS-8	Previous Metal Feedstock SB-304	Previous Metal Feedstock SB-304
Location ID	BH10	FS-1	FS-2	FS-3	FS-4	FS-5	FS-6	FS-7	FS-8	SB-304	SB-304
Sample Depth (ft bgs):	2 - 4	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	2 - 4
Date Collected:	03/06/07	06/12/95	06/12/95	06/12/95	06/12/95	06/12/95	06/12/95	06/12/95	06/12/95	02/08/95	02/08/95
Inorganics											
Aluminum	NA	2,390	2,920	4,400	5,630	5,350	3,330 [3,670]	2,680	6,750	7440	8,870
Antimony	<0.170	0.953	0.67	0.581	<0.558	<0.538	0.482 [<0.256]	<0.268	<0.523	1.09	<2.65
Arsenic	1.2	2.78	4.24	2.44	3.3	1.49	1.74 [1.88]	1.35	2.51	3.62	7.6
Cadmium	0.58	0.356	0.111	0.197	0.136	0.136	0.0730 [0.0844]	<0.0268	0.162	0.485	3.71
Calcium	NA	13400	31500	13300	41700	6940	5,040 [3,740]	1470	13100	21,800	11,100
Chromium Total	142	18.9	36.2	36.2	16.8	17.8	11.8 [12.0]	10.5	25.9	62.7	84.4
Chromium VI (Hexavalent)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	3.7	<5.38	<5.43	<5.60	<5.58	<5.38	<5.11 [<5.11]	<5.36	<5.23	<5.39	7.91
Copper	37.6	46.5	27.3	18.6	15.9	13.6	11.0 [10.2]	9.69	15.2	50.8	155
Cyanide (total)	NA	<0.270	0.86	<0.280	<0.280	<0.270	<0.260 [<0.260]	<0.000270	<0.260	<0.270	0.38
Iron	NA	28,600	34,900	15,800	12,500	12,600	10,900 [10,000]	10,600	13,000	34,800	87,400
Lead	7.1	35.5	9.58	21.5	7.94	6.63	2.91 [2.78]	2.56	10.5	39	279
Magnesium	NA	2,980	7,010	2,340	3,040	3,750	2,380 [2,230]	990	5,580	1,680	1,240
Manganese	11,900	398	330	1200	290	371	174 [280]	162	681	6,140	9,190
Mercury	<0.0420	0.0881	<0.0543	<0.0560	<0.0558	<0.0538	<0.0511 [<0.0511]	<0.0536	<0.0523	0.155	0.691
Nickel	8.8	19.4	24.6	18.5	11.9	12.4	8.02 [8.34]	7.18	14.6	14.2	35.7
Potassium	NA	<538	<543	<560	978	848	<511 [520]	<536	1,200	740	772
Selenium	<0.170	<0.269	0.601	<0.280	<0.558	<0.538	<0.255 [<0.256]	<0.268	<0.523	NA	<2.65
Silver	0.28	<0.269	<0.272	<0.280	<0.558	<0.538	<0.255 [<0.511]	<0.268	<0.523	NA	<2.65
Sodium	NA	<538	<543	<560	<558	<538	<511 [<511]	<536	<523	<539	5,390
Thallium	0.031	<0.269	<0.272	<0.280	<0.279	<0.269	<0.255 [<0.256]	<0.268	<0.262	<0.270	<0.265
Zinc	17.9	73.5	32.3	53.3	29.9	26.5	18.0 [19.7]	12.6	38.6	89.8	436

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TABLE I-7

COMPARISON OF INORGANIC COPCs TO FACILITY-SPECIFIC GENERIC MDEQ CRITERIA WITHOUT GSIP CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	Previous Metal Feedstock SB-304 6 - 8 02/08/95	Previous Metal Feedstock SB-305 0 - 1 02/08/95	Previous Metal Feedstock SB-305 2 - 4 02/08/95	Previous Metal Feedstock SB-305 6 - 8 02/08/95	Previous Metal Feedstock SB-305 10 - 12 02/08/95	Previous Metal Feedstock SB-352 0 - 2 06/28/95	Previously Proposed Type III Landfill Area TP1 0 - 4 05/22/98	Previously Proposed Type III Landfill Area TP1 4 - 8 05/22/98	Previously Proposed Type III Landfill Area TP2 0 - 4 05/22/98	Previously Proposed Type III Landfill Area TP2 4 - 8 05/22/98
Inorganics										
Aluminum	3,100	4,470	11,700	3,570	NA	4,100	4,910	5,490	6,320	4,860
Antimony	0.571	<0.282	<2.68	<1.39	0.366	1.1	<6.00	<6.00	<6.00	<6.00
Arsenic	2.05	1.29	1.3	3.6	3.91	5.8	2.1	2.2	2.7	2.8
Cadmium	0.0595	0.0333	0.074	0.0355	0.131	1.4	<0.500	<0.500	<0.500	<0.500
Calcium	2,710	2,130	55,300	15,900	NA	62,000	5,540	4,810	7,230	2,650
Chromium Total	12	14.2	125	77.8	14.8	43.8	16.6	13.9	16.2	13.4
Chromium VI (Hexavalent)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	<6.26	<5.65	<5.37	<5.55	<6.87	10.1	<5.00	<5.00	<5.00	<5.00
Copper	59.6	12.6	13.7	192	15.5	74.2	16.1	9	10.1	9
Cyanide (total)	<0.310	<0.280	<0.270	<0.280	<0.340	<0.110	<0.500	<0.500	<0.500	<0.500
Iron	15,200	14,800	22,700	26,800	NA	40,900	15400	13,200	15,900	14,400
Lead	37.1	3.59	18.3	23.5	9.83	74.6	11.6	10.5	6.7	8.1
Magnesium	<626	1,410	1,840	<555	NA	1640	1610	1,470	3,160	1,590
Manganese	1,040	232	6,820	3,830	NA	1120	1190	272	316	247
Mercury	<0.0626	<0.0565	<0.0537	<0.0555	<0.0687	0.3	<0.100	<0.100	<0.100	<0.100
Nickel	5.07	7.51	3.54	88.2	12.4	23.3	13.6	10.2	10.6	8.9
Potassium	<626	<565	1,020	<555	NA	603	NA	<500	535	<500
Selenium	<0.313	<0.282	<2.68	<1.39	<0.344	<0.280	<0.500	0.72	1	<0.500
Silver	<0.313	<0.282	<2.68	<1.39	<0.344	0.66	<1.00	<1.00	<1.00	<1.00
Sodium	<626	<565	<537	<555	NA	896	<500	<500	<500	<500
Thallium	<0.313	<0.282	<0.268	<0.278	<0.344	<0.560	<1.00	<1.00	<1.00	<1.00
Zinc	16.8	16.5	33.1	12.3	28.6	88.6	231	118	145	104

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COMPARISON OF INORGANIC COPCs TO FACILITY-SPECIFIC GENERIC MDEQ CRITERIA WITHOUT GSIP CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area	Previously Proposed Type III Landfill Area	Previously Proposed Type III Landfill Area	Previously Proposed Type III Landfill Area	Previously Proposed Type III Landfill Area	Previously Proposed Type III Landfill Area	Previously Proposed Type III Landfill Area	Previously Proposed Type III Landfill Area	Previously Proposed Type III Landfill Area	Previously Proposed Type III Landfill Area	Primary Settling Pond
Location ID	TP3	TP3	TP4	TP4	TP5	TP5	TP6	TP6	TP7	BH7
Sample Depth (ft bgs):	0 - 4	4 - 8	0 - 4	4 - 8	0 - 4	4 - 8	0 - 4	4 - 8	0 - 4	0 - 2
Date Collected:	05/22/98	05/22/98	05/22/98	05/22/98	05/22/98	05/22/98	05/22/98	05/22/98	05/22/98	03/06/07
Inorganics										
Aluminum	4,160	4,380	4,390	4,630	4,090	4,380	6,600	5,150	7,100	NA
Antimony	<6.00	<6.00	<6.00	<6.00	<6.00	<6.00	<6.00	<6.00	<6.00	<0.180
Arsenic	2.1	2	2.1	2.3	2	2.4	3	2.4	3.7	2.3
Cadmium	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	0.19
Calcium	3,150	3,410	2,170	2,980	2,260	3,220	3,800	2,230	4,460	NA
Chromium Total	9.9	9.9	13.1	13	12.6	14.5	17.7	12.5	28.7	26.3
Chromium VI (Hexavalent)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	4.8
Copper	7.6	7.6	10.2	8.1	14.2	9.4	14.7	8.2	25.8	15.8
Cyanide (total)	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	NA
Iron	11,100	11,100	12,900	13,500	13,600	13,800	18,100	13,100	23,400	NA
Lead	8.4	9.8	11.1	6.1	10.7	11.4	13.7	6.4	15.2	8
Magnesium	1,160	1,180	1,320	1,380	1,260	1,390	1,940	1,520	2,160	NA
Manganese	220	226	280	198	250	207	410	248	424	388
Mercury	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.0440
Nickel	7.2	6.9	8.7	8.5	8.7	10	10.6	7.4	17.3	19
Potassium	<500	<500	<500	<500	<500	<500	<500	<500	<500	NA
Selenium	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.180
Silver	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	0.067
Sodium	<500	<500	<500	<500	<500	<500	<500	<500	<500	NA
Thallium	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	0.065
Zinc	112	130	263	138	409	505	351	164	555	81.9

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TABLE I-7

COMPARISON OF INORGANIC COPCs TO FACILITY-SPECIFIC GENERIC MDEQ CRITERIA WITHOUT GSIP CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	Primary Settling Pond BH7 2 - 4 03/06/07	Primary Settling Pond BH8 0 - 2 03/06/07	Primary Settling Pond BH8 2 - 4 03/06/07	Primary Settling Pond NS-1 0 - 14 06/23/95	Railyard Area BH11 0 - 2 03/06/07	Railyard Area BH11 2 - 4 03/06/07	Railyard Area BH12 0 - 2 03/06/07	Railyard Area BH12 2 - 4 03/06/07	Railyard Area NS-RS-4 2.5 - 3 06/13/95	Railyard Area RS-1 0 - 1 06/13/95	Railyard Area RS-2 0 - 1 06/13/95	Railyard Area RS-2-1 0 - 1 06/10/96
Inorganics												
Aluminum	NA	NA	NA	13,100	NA	NA	NA	NA	NA	3,870	6,630	NA
Antimony	<0.210	<0.170	<0.190	<0.739	0.29	<0.190	0.190 [0.840]	0.13	<1.27	1.12	5.89	NA
Arsenic	2.9	1.4	1.3	5.1	3.7	5	4.40 [5.10]	2.2	7.04	3.04	11.8	NA
Cadmium	0.27	0.15	0.13	0.464	1.3	0.19	3.30 [1.60]	0.32	0.158	0.747	6.38	NA
Calcium	NA	NA	NA	29400	NA	NA	NA	NA	NA	7750	31300	NA
Chromium Total	13.7	11.9	14.3	24.2	95.8	21.6	918 [572]	137	22.2	60.3	1,110	NA
Chromium VI (Hexavalent)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	3.4	1.3	1.4	9.69	11.5	8.4	111 [38.7]	1.9	<6.33	8.52	143	NA
Copper	13.8	7	7.7	18.8	117	13.6	387 [120]	10.9	12.1	53.4	274	NA
Cyanide (total)	NA	NA	NA	<0.370	NA	NA	NA	NA	<0.320	<0.260	<0.270	NA
Iron	NA	NA	NA	19000	NA	NA	NA	NA	NA	45,400	12,000	NA
Lead	21.4	5.9	4.5	13.7	93.2	11	189 [77.7]	8.8	6.29	97.9	530	279
Magnesium	NA	NA	NA	15,200	NA	NA	NA	NA	NA	1,340	6,580	NA
Manganese	370	163	160	335	2,540	191	7,380 [6,770]	7,470	NA	955	3320	NA
Mercury	<0.0540	<0.0430	<0.0480	<0.0739	0.1	0.027	0.970 [0.220]	<0.0440	<0.0633	0.109	0.546	NA
Nickel	10.3	7.8	9.8	24.3	64.9	23	787 [384]	5.1	17.5	47.5	1,010	NA
Potassium	NA	NA	NA	1,870	NA	NA	NA	NA	NA	<526	944	NA
Selenium	0.5	0.25	0.15	<0.739	0.21	<0.190	<0.180 [<0.180]	<0.180	<1.27	1.6	4.31	NA
Silver	0.13	0.046	0.037	<0.739	0.21	0.1	0.220 [1.20]	0.081	<1.27	<0.526	<1.36	NA
Sodium	NA	NA	NA	<739	NA	NA	NA	NA	NA	<526	<543	NA
Thallium	0.062	0.047	0.031	<0.370	0.053	0.13	0.0200 [0.0270]	0.012	<0.317	<0.263	<0.272	NA
Zinc	43.6	255	96.5	61.2	473	48	355 [421]	20.2	37	256	2,630	NA

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TABLE I-7

COMPARISON OF INORGANIC COPCs TO FACILITY-SPECIFIC GENERIC MDEQ CRITERIA WITHOUT GSIP CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	Railyard Area RS-2-2 0 - 1 06/10/96	Railyard Area RS-2-3 0 - 1 06/10/96	Railyard Area RS-2-4 0 - 1 06/10/96	Railyard Area RS-2-5 0 - 1 06/10/96	Railyard Area RS-2-6 0 - 1 06/10/96	Railyard Area RS-2-7 0 - 1 06/10/96	Railyard Area RS-2-8 0 - 1 06/10/96	Railyard Area RS-2A 0 - 1 08/26/05	Railyard Area RS-3 0 - 1 06/13/95	Railyard Area RS-3A 0 - 1 08/26/05	Railyard Area RS-4 0 - 1 06/13/95	Railyard Area RS-6 0 - 1 06/13/95
Inorganics												
Aluminum	NA	NA	NA	NA	NA	NA	NA	NA	8,000	NA	3,710 [2,920]	7160
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	<1.34	NA	<1.06 [<1.06]	2.11
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	6.93	NA	6.00 [7.02]	6.48
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	2.46	NA	0.775 [0.812]	1.19
Calcium	NA	NA	NA	NA	NA	NA	NA	NA	34600	NA	56,900 [24,600]	30400
Chromium Total	NA	NA	NA	NA	NA	NA	NA	90.2 [141]	273	180	62.8 [62.3]	205
Chromium VI (Hexavalent)	NA	NA	NA	NA	NA	NA	NA	<0.830 [<0.830]	NA	<0.830	NA	NA
Cobalt	NA	NA	NA	NA	NA	NA	NA	NA	44.6	NA	15.6 [15.8]	36.5
Copper	NA	NA	NA	NA	NA	NA	NA	NA	114	NA	27.3 [31.4]	75.6
Cyanide (total)	NA	NA	NA	NA	NA	NA	NA	NA	<0.270	NA	<0.260 [<0.260]	0.27
Iron	NA	NA	NA	NA	NA	NA	NA	NA	43,000	NA	14,400 [22,400]	50100
Lead	237	335	456	769	214 [1,370]	159	209	NA	161	NA	30.1 [29.8]	98.1
Magnesium	NA	NA	NA	NA	NA	NA	NA	NA	4,180	NA	5,340 [3,390]	6340
Manganese	NA	NA	NA	NA	NA	NA	NA	NA	5030	NA	300 [463]	2,020
Mercury	NA	NA	NA	NA	NA	NA	NA	NA	0.367	NA	<0.0530 [0.102]	0.143
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	271	NA	71.8 [71.1]	198
Potassium	NA	NA	NA	NA	NA	NA	NA	NA	1,150	NA	748 [<528]	1,210
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	<1.34	NA	2.00 [2.35]	<1.05
Silver	NA	NA	NA	NA	NA	NA	NA	NA	<1.34	NA	<1.06 [<1.06]	<1.05
Sodium	NA	NA	NA	NA	NA	NA	NA	NA	<537	NA	<530 [<528]	<524
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	<0.268	NA	<0.265 [<0.264]	<0.262
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	448	NA	111 [119]	306

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TABLE I-7

COMPARISON OF INORGANIC COPCs TO FACILITY-SPECIFIC GENERIC MDEQ CRITERIA WITHOUT GSIP CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	Railyard Area RS-7 0 - 1 06/13/95	Railyard Area RS-8 0 - 1 06/13/95	Railyard Area RS-09 0 - 1 08/19/05	Railyard Area RS-10 0 - 1 08/19/05	Railyard Area RS-11 0 - 1 08/19/05	Railyard Area RS-12 0 - 1 08/19/05	Railyard Area RS-13 0 - 1 08/19/05	Railyard Area RS-14 0 - 1 08/19/05	Railyard Area RS-15 0 - 1 08/19/05	Railyard Area RS-16 0 - 1 08/19/05	Railyard Area RS-17 0 - 1 08/19/05	Railyard Area RS-18 0 - 1 08/19/05
Inorganics												
Aluminum	1280	5510	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	1.76	1.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	6.9	8.98	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.0932	0.93	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	2540	27400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	66.3	141	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium VI (Hexavalent)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	9.53	17	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	55.6	64.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	0.48	0.31	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	79100	28000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	6.91	72.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	R	4010	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	551	2,060	1,560	449	3,650	2,310	2,360 [1,530]	2,380	329	632	5,470	25
Mercury	<0.0535	0.0709	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	49.1	152	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	<535	706	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	3.34	<1.05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	<3.34	<1.05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	1,550	<524	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	<0.268	<0.262	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	42.1	566	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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COMPARISON OF INORGANIC COPCs TO FACILITY-SPECIFIC GENERIC MDEQ CRITERIA WITHOUT GSIP CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	Railyard Area RY-B1 1 07/14/98	Railyard Area RY-B2 1 07/14/98	Saginaw River Area MW-183WT 8 - 8.5 07/24/00	Saginaw River Area SB-374 9.5 - 10.5 07/24/00	Saginaw River Area SB-375 6.5 - 7.5 07/24/00	Saginaw River Area SB-376 7 - 8 07/25/00	Saginaw River Area SB-377 0 - 0.5 07/25/00	Saginaw River Area SB-377 0.5 - 1 07/25/00	Saginaw River Area SB-378 Floor 2 - 3 09/22/04	Saginaw River Area SB-378 North Floor 2 - 3 09/22/04	Saginaw River Area SB-378 Northeast Wall 0 - 1 09/13/04
Inorganics											
Aluminum	NA	NA	4,830	7,080	5,090 [4,160]	5,500	13,700	4,060 [11,400]	NA	NA	NA
Antimony	NA	NA	<7.70	<8.20	<8.30 [<8.10]	<8.20	<6.40	<6.30 [<6.50]	NA	NA	NA
Arsenic	NA	NA	5.2	3.2	3.90 [3.80]	3.2	4.9	3.40 [4.40]	NA	NA	NA
Cadmium	NA	NA	0.09	0.63	<0.690 [0.380]	<0.680	0.64	1.00 [0.0700]	NA	NA	NA
Calcium	NA	NA	31,200	36,000	37,400 [33,500]	31,600	16,500	17,100 [16,200]	NA	NA	NA
Chromium Total	NA	NA	10.4	14.9	10.4 [9.70]	11.5	24.6	31.9 [39.1]	NA	NA	NA
Chromium VI (Hexavalent)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	NA	NA	3.7	5.5	4.50 [3.90]	4	7.1	3.00 [6.30]	NA	NA	NA
Copper	NA	NA	6.5	10.4	7.10 [6.20]	7.6	32.6	27.6 [17.9]	NA	NA	NA
Cyanide (total)	NA	NA	<0.640	<0.690	<0.690 [<0.680]	<0.680	<0.530	<0.520 [<0.540]	NA	NA	NA
Iron	NA	NA	11,800	16,500	10,000 [10,200]	9,280	18,800	38,400 [18,200]	NA	NA	NA
Lead	NA	NA	<3.90	5.6	<3.90 [3.40]	4.3	11.7	2.60 [11.8]	NA	NA	NA
Magnesium	NA	NA	11,600	17,300	12,900 [11,800]	13,700	7,380	1,190 [5,330]	NA	NA	NA
Manganese	NA	NA	333	450	476 [360]	266	527	3,510 [1,690]	21,500	26,600	2,350
Mercury	NA	NA	0.029	0.23	<0.140 [0.0340]	<0.140	0.028	<0.100 [<0.110]	NA	NA	NA
Nickel	NA	NA	8.1	13.2	9.10 [8.40]	9	22.2	25.4 [17.9]	NA	NA	NA
Potassium	NA	NA	649	1,100	907 [631]	942	2,210	381 [1,450]	NA	NA	NA
Selenium	NA	NA	<0.640	0.76	0.530 [0.600]	1.2	1.3	2.90 [0.680]	NA	NA	NA
Silver	NA	NA	<1.30	<1.40	<1.00 [<1.40]	<1.40	<1.10	0.220 [<1.10]	NA	NA	NA
Sodium	NA	NA	<640	<687	<692 [<678]	<681	<532	<521 [<539]	NA	NA	NA
Thallium	NA	NA	<1.30	<1.40	<1.40 [0.700]	<1.40	<1.10	<1.00 [<1.10]	NA	NA	NA
Zinc	NA	NA	26.9	35.9	31.5 [23.7]	31.7	39.3	<9.20 [39.8]	NA	NA	NA

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TABLE I-7

COMPARISON OF INORGANIC COPCs TO FACILITY-SPECIFIC GENERIC MDEQ CRITERIA WITHOUT GSIP CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	Saginaw River Area SB-378 Northwest Wall 0 - 1 08/30/04	Saginaw River Area SB-378 South Floor 2 - 3 09/22/04	Saginaw River Area SB-378 South Wall 0 - 1 09/13/04	Saginaw River Area SB-378 Southwest Wall 0 - 1 08/30/04	Saginaw River Area SB-379 0 - 0.5 07/25/00	Saginaw River Area SB-379 0.5 - 1 07/25/00	Saginaw River Area SB-380 Northeast Wall 0 - 1 08/30/04	Saginaw River Area SB-380 Northwest Wall 0 - 1 09/13/04
Inorganics								
Aluminum	NA	NA	NA	NA	9,030	4,390	NA	NA
Antimony	NA	NA	NA	NA	<6.80	<6.10	NA	NA
Arsenic	NA	NA	NA	NA	3.6	1.4	NA	NA
Cadmium	NA	NA	NA	NA	0.57	0.31	NA	NA
Calcium	NA	NA	NA	NA	17,300	14,300	NA	NA
Chromium Total	NA	NA	NA	NA	36.7	31.5	NA	NA
Chromium VI (Hexavalent)	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	NA	NA	NA	NA	4.7	1.3	NA	NA
Copper	NA	NA	NA	NA	16	5.6	NA	NA
Cyanide (total)	NA	NA	NA	NA	<0.560	<0.510	NA	NA
Iron	NA	NA	NA	NA	17,500	9,800	NA	NA
Lead	NA	NA	NA	NA	9.6	3.5	NA	NA
Magnesium	NA	NA	NA	NA	3,650	588	NA	NA
Manganese	299	13,600	1,830	342	1,350	2,250	688	848
Mercury	NA	NA	NA	NA	0.054	<0.100	NA	NA
Nickel	NA	NA	NA	NA	15.6	3.5	NA	NA
Potassium	NA	NA	NA	NA	1,180	374	NA	NA
Selenium	NA	NA	NA	NA	1.2	0.56	NA	NA
Silver	NA	NA	NA	NA	<1.10	0.18	NA	NA
Sodium	NA	NA	NA	NA	<563	<507	NA	NA
Thallium	NA	NA	NA	NA	<1.10	<1.00	NA	NA
Zinc	NA	NA	NA	NA	40.6	<6.80	NA	NA

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COMPARISON OF INORGANIC COPCs TO FACILITY-SPECIFIC GENERIC MDEQ CRITERIA WITHOUT GSIP CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	Saginaw River Area SB-380 South Floor 2 - 3 09/22/04	Saginaw River Area SB-380 South Wall 0 - 1 09/13/04	Saginaw River Area SB-381 Floor 2 09/13/04	Saginaw River Area SB-381 Northeast Wall 0 - 1 09/13/04	Saginaw River Area SB-381 Northwest Wall 0 - 1 08/30/04	Saginaw River Area SB-381 Southwest Wall 0 - 1 08/30/04	Saginaw River Area SB-382 0 - 0.5 07/25/00	Saginaw River Area SB-382 0.5 - 1 07/25/00	Saginaw River Area SB-383 0 - 0.5 07/25/00	Saginaw River Area SB-383 0.5 - 1 07/25/00
Inorganics										
Aluminum	NA	NA	NA	NA	NA	NA	9,170	10,500	3,350	3,730
Antimony	NA	NA	NA	NA	NA	NA	<6.20	0.92	<6.30	<6.10
Arsenic	NA	NA	NA	NA	NA	NA	5.9	6.1	1.7	1.3
Cadmium	NA	NA	NA	NA	NA	NA	0.87	1.2	0.29	0.14
Calcium	NA	NA	NA	NA	NA	NA	26,900	33,400	10,500	2,490
Chromium Total	NA	NA	NA	NA	NA	NA	42.7	65	8.4	3.9
Chromium VI (Hexavalent)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	NA	NA	NA	NA	NA	NA	4.9	5.1	1.3	1.1
Copper	NA	NA	NA	NA	NA	NA	20	32.1	8.8	<3.00
Cyanide (total)	NA	NA	NA	NA	NA	NA	<0.520	<0.550	<0.520	<0.510
Iron	NA	NA	NA	NA	NA	NA	20,300	26,500	7,030	4,710
Lead	NA	NA	NA	NA	NA	NA	37.7	46.9	15.2	2.6
Magnesium	NA	NA	NA	NA	NA	NA	5,780	5,330	1,130	847
Manganese	17,200	2,710	6,200	1,130	547 [684]	2,360	2,190	3,450	225	156
Mercury	NA	NA	NA	NA	NA	NA	0.058	0.08	0.023	0.011
Nickel	NA	NA	NA	NA	NA	NA	16.8	21	<5.10	<4.10
Potassium	NA	NA	NA	NA	NA	NA	1,490	1,400	368	356
Selenium	NA	NA	NA	NA	NA	NA	1.5	2	0.35	<0.510
Silver	NA	NA	NA	NA	NA	NA	<1.00	0.33	<1.00	<1.00
Sodium	NA	NA	NA	NA	NA	NA	<516	<552	<521	<510
Thallium	NA	NA	NA	NA	NA	NA	<1.00	<1.10	<1.00	<1.00
Zinc	NA	NA	NA	NA	NA	NA	73.1	78.2	27.9	<7.50

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COMPARISON OF INORGANIC COPCs TO FACILITY-SPECIFIC GENERIC MDEQ CRITERIA WITHOUT GSIP CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area	Saginaw River Area	Saginaw River Area	Saginaw River Area	Saginaw River Area	Saginaw River Area	Saginaw River Area	Saginaw River Area	Saginaw River Area	Saginaw River Area	Saginaw River Area	Stormwater Pond	Stormwater Pond	Stormwater Pond	Stormwater Pond	UST 7
Location ID	SB-384	SB-384	SB-385	SB-385	SB-386	SB-386	SB-387	SB-387	SB-388	SB-388	NS-7	NS-8	NS-9	NS-10	BBL-MW1
Sample Depth (ft bgs):	0 - 0.5	0.5 - 1	0 - 0.5	0.5 - 1	0 - 0.5	0.5 - 1	0 - 0.5	0.5 - 1	0 - 0.5	0.5 - 1	0 - 4.5	0 - 10	0 - 4.5	0 - 10	4 - 6
Date Collected:	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	07/25/00	06/21/95	06/21/95	06/21/95	06/21/95	05/02/96
Inorganics															
Aluminum	8,770	6,030	4,740	4,040	3,710	3,490	4,430	3,530	7,610	3,670	2,150	2,920	1,520	12600	NA
Antimony	<6.40	<6.30	<6.30	<6.40	<6.20	<6.20	<6.20	<6.60	<6.30	<6.60	<0.314	<0.362	<0.325	<0.672	NA
Arsenic	4.5	3.2	4.2	2.5	3.2	2.5	3.8	2.3	6.1	5.7	1.53	7.31	2.08	8.2	NA
Cadmium	0.55	0.63	0.53	0.58	<0.520	<0.520	0.34	<0.550	0.21	0.12	0.0428	0.125	0.039	0.319	NA
Calcium	13,000	108,000	15,900	55,300	13,000	16,600	13,300	10,500	30,400	33,100	39200	43600	34400	30,900	NA
Chromium Total	24.7	42.6	15.4	12.2	25.1	7.7	21.6	43.9	65.7	22.7	5.41	7.53	3.84	23.5	NA
Chromium VI (Hexavalent)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	4	2.4	3.2	2.2	2.2	2.2	3.1	1.7	3.8	2.9	<6.29	<7.24	<6.51	9.47	NA
Copper	15.4	16	18	10.6	13.5	5.6	28.7	16.7	28.2	15.3	3.58	4.85	2.6	17.3	NA
Cyanide (total)	<0.530	<0.520	<0.530	<0.540	<0.520	<0.520	<0.520	<0.550	<0.520	<0.550	<0.310	0.56	<0.330	<0.340	NA
Iron	13,900	15,300	10,900	6,980	10,500	5,930	15,000	12,400	20,900	9,800	4,900	7,070	3,720	26,100	NA
Lead	15.5	14.5	26.3	120	45.1	8.5	61.5	9	27.4	11.3	2.13	2.52	1.48	7.48	38
Magnesium	4,320	3,680	4,900	10,900	2,270	4,420	3,530	1,040	5,800	8,370	10,700	13,900	8,550	20,200	NA
Manganese	738	2,070	276	384	1180	173	686	2200	2940	909	218	134	170	1,190	NA
Mercury	0.051	0.036	0.064	<0.110	0.16	<0.100	<0.100	<0.110	<0.100	<0.110	<0.0629	<0.0724	<0.0651	<0.0672	NA
Nickel	13.7	16.4	<11.1	7.4	7.7	6.5	13	14.1	14	8.4	6.1	7.17	3.9	20.5	NA
Potassium	1,550	742	912	646	515	633	686	392	1,120	515	<629	<724	<651	1,290	NA
Selenium	0.98	0.88	0.68	0.61	0.33	0.36	0.51	0.49	0.97	<0.550	<0.314	<0.362	<0.325	<0.672	NA
Silver	<1.10	0.18	<1.10	<1.10	<1.00	<1.00	<1.00	<1.10	0.19	<1.10	<0.314	<0.362	<0.325	<0.672	NA
Sodium	<532	<524	<525	<536	<516	<516	<516	<550	<521	<550	<629	<724	<651	<672	NA
Thallium	<1.10	<1.00	<1.10	0.59	<1.00	<1.00	<1.00	<1.10	0.55	<1.10	<0.314	<0.362	<0.325	<0.336	NA
Zinc	46.8	26.4	56	50.1	57.9	16.2	101	12	54.1	37.5	12.5	18.1	10.8	51.7	NA

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TABLE I-7

COMPARISON OF INORGANIC COPCs TO FACILITY-SPECIFIC GENERIC MDEQ CRITERIA WITHOUT GSIP CRITERIA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Sampling Area Location ID Sample Depth (ft bgs): Date Collected:	UST 7 BBL-MW2 4 - 6 05/02/96	UST 7 BBL-MW3 6 - 8 05/02/96	UST 7 BBL-MW4 4 - 6 05/03/96	UST 7 BBL-MW5 4 - 6 05/03/96	UST 7 BBL-SB1 4 - 6 05/06/96	UST 7 BBL-SB1 8 - 10 05/06/96	UST 7 BBL-SB2 0 - 2 05/07/96	UST 7 BBL-SB3 6 - 8 05/07/96	UST 7 BBL-SB3 8 - 10 05/07/96	UST 7 BBL-SB4 0 - 2 05/07/96	UST 7 BBL-SB4 8 - 10 05/07/96	UST 7 BBL-SB5 0 - 2 05/06/96	UST 7 BBL-SB5 20 - 22 05/06/96	UST 7 SB-351 0 - 2 06/27/95
Inorganics														
Aluminum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4,720
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.57
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.3
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.41
Calcium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2,860
Chromium Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.8
Chromium VI (Hexavalent)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	29.5
Cyanide (total)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.110
Iron	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	19,300
Lead	12	13.2	4.48	2.55	4.39	17.8	28.3	38.2	25.5	14.8	14.9	138	5.17	41.3
Magnesium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1160
Manganese	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	314
Mercury	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.0600
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.1
Potassium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	666
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.280
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23
Sodium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	597
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.570
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	31.6

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TABLE I-8
SUMMARY OF EXCAVATED SAMPLES

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Area	Sample ID	Sample Date	Start Depth (ft)	End Depth (ft)
Melting Department	1173	6/20/1996	NA	NA
Melting Department	C1156	6/17/1996	NA	NA
Melting Department	C1172	6/20/1996	NA	NA
Melting Department	C1175	6/20/1996	NA	NA
Melting Department	C1176	6/20/1996	NA	NA
Melting Department	C1178	6/20/1996	NA	NA
Melting Department	C1179	6/20/1996	NA	NA
Melting Department	C1181	6/20/1996	NA	NA
Melting Department	C1182	6/20/1996	NA	NA
Railyard Area	RS-5	6/13/1995	0	1
Melting Department	S1155	6/17/1996	0	0.5
Melting Department	S1157	6/20/1996	0	0.5
Melting Department	S1158	6/20/1996	0.5	1
Melting Department	S1159	6/20/1996	1	2
Melting Department	S1160	6/20/1996	0	0.5
Melting Department	S1161	6/20/1996	0.5	1
Melting Department	S1162	6/20/1996	1	2
Melting Department	S1163	6/20/1996	0	0.5
Melting Department	S1164	6/20/1996	0.5	1
Melting Department	S1165	6/20/1996	1	2
Melting Department	S1166	6/20/1996	0	0.5
Melting Department	S1167	6/20/1996	0.5	1
Melting Department	S1168	6/20/1996	1	2
Melting Department	S1169	6/20/1996	0	0.5
Melting Department	S1170	6/20/1996	0.5	1
Melting Department	S1171	6/20/1996	1	2
Melting Department	S1172	6/20/1996	0	0.5
Melting Department	S1173	6/20/1996	0.5	1
Melting Department	S1174	6/20/1996	1	2
Melting Department	S1175	6/20/1996	0	0.5
Melting Department	S1176	6/20/1996	0.5	1
Melting Department	S1177	6/20/1996	1	2
Melting Department	S1178	6/20/1996	0	0.5
Melting Department	S1179	6/20/1996	0.5	1
Melting Department	S1180	6/20/1996	1	2
Melting Department	S1181	6/20/1996	0	0.5
Melting Department	S1182	6/20/1996	0.5	1
Melting Department	S1183	6/20/1996	1	3
Melting Department	S2031	9/6/1996	0	0.5
Melting Department	S2032	9/6/1996	0	0.5
Melting Department	S2033	9/6/1996	0	0.5
Melting Department	S2034	9/6/1996	0	0.5
Melting Department	S2035	9/6/1996	0	0.5
Melting Department	S2036	9/6/1996	0	0.5
Buffer Basin	SB-336	6/23/1995	0	2
Buffer Basin	SB-337	6/23/1995	4	6
Buffer Basin	SB-338	6/26/1995	2	4
Buffer Basin	SB-338	6/26/1995	6	8
Buffer Basin	SB-338	6/26/1995	2	4
Buffer Basin	SB-339	6/26/1995	2	4
Buffer Basin	SB-340	6/26/1995	2	4
Buffer Basin	SB-341	6/26/1995	2	4
Buffer Basin	SB-342	6/26/1995	2	4
Buffer Basin	SB-342	6/26/1995	4	6
Buffer Basin	SB-343	6/26/1995	2	4
Buffer Basin	SB-344	6/26/1995	2	4
Buffer Basin	SB-345	6/27/1995	2	4
Buffer Basin	SB-346	6/27/1995	2	4
Buffer Basin	SB-347	6/27/1995	2	4
Buffer Basin	SB-347	6/27/1995	2	4
Buffer Basin	SB-348	6/27/1995	2	4
Buffer Basin	SB-349	6/27/1995	2	4
Buffer Basin	SB-350	6/27/1995	4	6
Buffer Basin	SB-353	6/28/1995	0	2
Buffer Basin	SB-355	6/28/1995	2	4
Buffer Basin	SB-378	7/25/2000	0	0.5
Buffer Basin	SB-378	7/25/2000	0.5	1
River Berm Area	SB-378 Floor	8/30/2004	1	1
River Berm Area	SB-378 North Floor	8/30/2004	1	1

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TABLE I-8
SUMMARY OF EXCAVATED SAMPLES

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Area	Sample ID	Sample Date	Start Depth (ft)	End Depth (ft)
River Berm Area	SB-378 Northeast Wall	8/30/2004	0	1
River Berm Area	SB-378 South Floor	8/30/2004	1	1
River Berm Area	SB-378 South Wall	8/30/2004	0	1
Buffer Basin	SB-380	7/25/2000	0	0.5
Buffer Basin	SB-380	7/25/2000	0.5	1
River Berm Area	SB-380 North Floor	8/30/2004	1	1
River Berm Area	SB-380 Northwest Wall	8/30/2004	0	1
River Berm Area	SB-380 South Floor	8/30/2004	1	1
River Berm Area	SB-380 South Floor	8/30/2004	1	1
River Berm Area	SB-380 South Wall	8/30/2004	0	1
River Berm Area	SB-380 Southwest Wall	8/30/2004	0	1
Buffer Basin	SB-381	7/25/2000	0	0.5
Buffer Basin	SB-381	7/25/2000	0.5	1
River Berm Area	SB-381 Floor	8/30/2004	1	1
River Berm Area	SB-381 North Floor	8/30/2004	1	1
River Berm Area	SB-381 Northeast Wall	8/30/2004	0	1
River Berm Area	SB-381 South Floor	8/30/2004	1	1
River Berm Area	SB-381 South Wall	8/30/2004	0	1
Green Point Landfill	TP-12	3/23/1995	7.8	8
Green Point Landfill	TP-2	3/23/1995	8	8.5
Green Point Landfill	TP-6	3/22/1995	8	8.5
Unpaved Area	US-5	6/12/1995	0	1
Unpaved Area	US-5-1	6/10/1996	0	1
Unpaved Area	US-5-3	6/10/1996	0	1
Unpaved Area	US-5-7	6/10/1996	0	1

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TABLE I-9
NOTES FOR TABLES I-1 THROUGH I-8

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Notes:
Unless noted otherwise, all values are in milligrams per kilogram (mg/kg).
Shaded - Concentration exceeds screening level.
Duplicate results are shown in brackets.

Criteria:
CSAT - Soil Saturation Concentration Screening Levels.
GCCP - Groundwater Contact Protection Criteria and Risk-Based Screening Levels (RBSLs).
GSIP - Groundwater Surface Water Interface Protection Criteria and RBSLs.
IDC - Industrial and Commercial II Direct Contact Criteria and RBSLs.
IDWP - Industrial Drinking Water Protection Criteria and RBSLs.
IPSIC - Industrial Particulate Soil Inhalation Criteria and RBSLs.
ISVIA - Industrial Soil Volatilization ton Indoor Air Inhalation Criteria and RBSLs.
IVSIC2 - Finite Volatile Soil Inhalation Criteria (VSIC) and RBSLs for 2 Meter Source Thickness.
IVSIC5 - Finite Source SVIC for 5 Meter Source Thickness.
IVSICI - Infinite Source SVIC and RBSLs.
RDWP - Residential Drinking Water Protection Criteria and RBSLs.
SDBL - Statewide Default Background Levels.

Data Qualifiers:

*	Duplicate analysis is not within control limits.
B	The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
BN	Reported value is less than the CRDL but greater than or equal to the IDL and the spiked sample recovery not within control limits.
D	Concentration is based on a diluted sample analysis.
E	The compound was quantitated above the calibration range.
EN	The reported value is estimated because of the presence of the interference and the spiked sample recovery not within control limits.
G	Elevated reporting limit. The reporting limit is elevated due to matrix interference.
J	The compound was positively identified; however, the associated numerical value is an estimated concentration only.
L	Analyte present. Reported value may be biased low. Actual value is expected to be higher.
MBB	This analyte is present at reportable levels in the associated trip blank, but is less than 5% of the sample amount.
MBD	This analyte is present in the associated method blank at an amount that is less than two times the reporting limit.
N	Tentative identification. Consider present. Specific methods may be needed to confirm its presences or absence in future sampling efforts.
R	The sample results are rejected.
W	Post-digestion spike for Furnace-AA Analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
Wa	Post digestion spike recovery fell between 40-85% due to matrix interference.
Wb	Post digestion spike recovery fell between 115-150% due to matrix interference.

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Attachment II

95% Upper Confidence Limit Calculations

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TABLE II-1
SUMMARY OF STATISTICAL ANALYSIS OF MANGANESE FOR EACH AREA OF INTERES

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Area	Number of Soil Samples	Frequency of Detection	Minimum Manganese Concentration	Mean Manganese Concentration	Maximum Manganese Concentration	95% UCL	Distribution	Exposure Point Concentration	Program Used
CTC Parking Lot	6	100%	150	5,540	11,600	9,720	Normal	11,600	MDEQ[2]
Former Railyard Area (surface)	19	100%	25	2,290	7,380	3,540	Gamma	3,540	ProUCL[1]
Former Railyard Area (all)	21	100%	25	2,440	7,470	3,770	Gamma	3,770	ProUCL[1]
Saginaw River Berm (surface)	28	100%	156	1,370	3,510	2,320	Lognormal	2,320	MDEQ[2]
Saginaw River Berm (all)	37	100%	156	3,380	26,600	5,800	Lognormal	5,800	MDEQ[2]
Previous Metal Feedstock Area (surface)	11	100%	162	1,020	6,140*	2,410	Lognormal	6,140	MDEQ[2]
Previous Metal Feedstock Area (all)	15	100%	162	2,140	9,190	7,470	Lognormal	7,410	MDEQ[2]
Parking Lot/Buffer Basin Area	4	100%	255	4,560	11,900	NC	ND	11,900	NA

Notes:
NA = Not applicable.
NC = Not calculated.
ND = Not determined.
* Maximum concentration is an outlier.

[1] United States Environmental Protection Agency. 2007a. ProUCL 4.0. A Statistical Software Package. Office of Research and Development, National Exposure Research Laboratory, Environmental Sciences Division, Las Vegas, Nevada.
[2] MDEQ, 2002. P201 STATSOFT: STATISTICAL INTERFACE FOR PART 201 EVALUATIONS: Statistical Methods for Comparing Facility Data to Part 201 Criteria and Background. http://www.deq.state.mi.us/stats.

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TABLE II-2
DATASET USED FOR CTC PARKING LOT STATISTICAL ANALYSIS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID	Sample Depth (ft bgs)	Date Collected	Manganese (mg/kg)
PL-1	0.75 - 1.21	08/10/01	11,600
PL-2*	0.75 - 1.67	08/10/01	7,700
PL-3	0.67 - 1.67	08/10/01	10,700
PL-4	0.75 - 1.5	08/10/01	1,800
VE-1	0.75 - 1.58	08/10/01	150
VE-2	0.92 - 1.67	08/10/01	1,300

Notes:
All values are in milligrams per kilogram (mg/kg).
* For duplicate samples, the higher of the two results is presented.

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TABLE II-3
DATASET USED FOR RAILYARD SURFACE SOIL STATISTICAL ANALYSIS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID	Sample Depth (ft bgs)	Date Collected	Manganese (mg/kg)
BH11	0 - 2	03/06/07	2,540
BH12*	0 - 2	03/06/07	7,380
RS-1	0 - 1	06/13/95	955
RS-2	0 - 1	06/13/95	3,320
RS-3	0 - 1	06/13/95	5,030
RS-4*	0 - 1	06/13/95	463
RS-6	0 - 1	06/13/95	2,020
RS-7	0 - 1	06/13/95	551
RS-8	0 - 1	06/13/95	2,060
RS-09	0 - 1	08/19/05	1,560
RS-10	0 - 1	08/19/05	449
RS-11	0 - 1	08/19/05	3,650
RS-12	0 - 1	08/19/05	2,310
RS-13*	0 - 1	08/19/05	2360
RS-14	0 - 1	08/19/05	2,380
RS-15	0 - 1	08/19/05	329
RS-16	0 - 1	08/19/05	632
RS-17	0 - 1	08/19/05	5,470
RS-18	0 - 1	08/19/05	25

Notes:
All values are in milligrams per kilogram (mg/kg).
* For duplicate samples, the higher of the two results is presented.

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TABLE II-4
DATASET USED FOR RAILYARD SOIL COLUMN STATISTICAL ANALYSIS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID	Sample Depth (ft bgs)	Date Collected	Manganese (mg/kg)
BH11	0 - 2	03/06/07	2,540
BH11	2 - 4	03/06/07	191
BH12*	0 - 2	03/06/07	7,380
BH12	2 - 4	03/06/07	7,470
RS-1	0 - 1	06/13/95	955
RS-2	0 - 1	06/13/95	3,320
RS-3	0 - 1	06/13/95	5,030
RS-4*	0 - 1	06/13/95	463
RS-6	0 - 1	06/13/95	2,020
RS-7	0 - 1	06/13/95	551
RS-8	0 - 1	06/13/95	2,060
RS-09	0 - 1	08/19/05	1,560
RS-10	0 - 1	08/19/05	449
RS-11	0 - 1	08/19/05	3,650
RS-12	0 - 1	08/19/05	2,310
RS-13*	0 - 1	08/19/05	2,360
RS-14	0 - 1	08/19/05	2,380
RS-15	0 - 1	08/19/05	329
RS-16	0 - 1	08/19/05	632
RS-17	0 - 1	08/19/05	5,470
RS-18	0 - 1	08/19/05	25

Notes:
All values are in milligrams per kilogram (mg/kg).
* For duplicate samples, the higher of the two results is presented.

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TABLE II-5
DATASET USED FOR SAGINAW RIVER BERM SURFACE SOIL STATISTICAL ANALYSIS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID	Sample Depth (ft bgs)	Date Collected	Manganese (mg/kg)
SB-377	0 - 0.5	07/25/00	527
SB-377*	0.5 - 1	07/25/00	3,510
SB-378 Northeast Wall	0 - 1	09/13/04	2,350
SB-378 Northwest Wall	0 - 1	08/30/04	299
SB-378 South Wall	0 - 1	09/13/04	1,830
SB-378 Southwest Wall	0 - 1	08/30/04	342
SB-379	0 - 0.5	07/25/00	1,350
SB-379	0.5 - 1	07/25/00	2,250
SB-380 Northeast Wall	0 - 1	08/30/04	688
SB-380 Northwest Wall	0 - 1	09/13/04	848
SB-380 South Wall	0 - 1	09/13/04	2,710
SB-381 Northeast Wall	0 - 1	09/13/04	1,130
SB-381 Northwest Wall*	0 - 1	08/30/04	684
SB-381 Southwest Wall	0 - 1	08/30/04	2,360
SB-382	0 - 0.5	07/25/00	2,190
SB-382	0.5 - 1	07/25/00	3,450
SB-383	0 - 0.5	07/25/00	225
SB-383	0.5 - 1	07/25/00	156
SB-384	0 - 0.5	07/25/00	738
SB-384	0.5 - 1	07/25/00	2,070
SB-385	0 - 0.5	07/25/00	276
SB-385	0.5 - 1	07/25/00	384
SB-386	0 - 0.5	07/25/00	1,180
SB-386	0.5 - 1	07/25/00	173
SB-387	0 - 0.5	07/25/00	686
SB-387	0.5 - 1	07/25/00	2,200
SB-388	0 - 0.5	07/25/00	2,940
SB-388	0.5 - 1	07/25/00	909

Notes:
All values are in milligrams per kilogram (mg/kg).
* For duplicate samples, the higher of the two results is presented.

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TABLE II-6
DATASET USED FOR SAGINAW RIVER BERM SOIL COLUMN STATISTICAL ANALYSIS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID	Sample Depth (ft bgs)	Date Collected	Manganese (mg/kg)
MW-183WT	8 - 8.5	07/24/00	333
SB-374	9.5 - 10.5	07/24/00	450
SB-375*	6.5 - 7.5	07/24/00	476
SB-376	7 - 8	07/25/00	266
SB-377	0 - 0.5	07/25/00	527
SB-377*	0.5 - 1	07/25/00	3,510
SB-378 Floor	2 - 3	09/22/04	21,500
SB-378 North Floor	2 - 3	09/22/04	26,600
SB-378 Northeast Wall	0 - 1	09/13/04	2,350
SB-378 Northwest Wall	0 - 1	08/30/04	299
SB-378 South Floor	2 - 3	09/22/04	13,600
SB-378 South Wall	0 - 1	09/13/04	1,830
SB-378 Southwest Wall	0 - 1	08/30/04	342
SB-379	0 - 0.5	07/25/00	1,350
SB-379	0.5 - 1	07/25/00	2,250
SB-380 Northeast Wall	0 - 1	08/30/04	688
SB-380 Northwest Wall	0 - 1	09/13/04	848
SB-380 South Floor	2 - 3	09/22/04	17,200
SB-380 South Wall	0 - 1	09/13/04	2,710
SB-381 Floor	2	09/13/04	6,200
SB-381 Northeast Wall	0 - 1	09/13/04	1,130
SB-381 Northwest Wall*	0 - 1	08/30/04	684
SB-381 Southwest Wall	0 - 1	08/30/04	2,360
SB-382	0 - 0.5	07/25/00	2,190
SB-382	0.5 - 1	07/25/00	3,450
SB-383	0 - 0.5	07/25/00	225
SB-383	0.5 - 1	07/25/00	156
SB-384	0 - 0.5	07/25/00	738
SB-384	0.5 - 1	07/25/00	2,070
SB-385	0 - 0.5	07/25/00	276
SB-385	0.5 - 1	07/25/00	384
SB-386	0 - 0.5	07/25/00	1,180
SB-386	0.5 - 1	07/25/00	173
SB-387	0 - 0.5	07/25/00	686
SB-387	0.5 - 1	07/25/00	2,200
SB-388	0 - 0.5	07/25/00	2,940
SB-388	0.5 - 1	07/25/00	909

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Notes:
All values are in milligrams per kilogram (mg/kg).
* For duplicate samples, the higher of the two results is presented.

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TABLE II-7
DATASET USED FOR PREVIOUS METAL FEEDSTOCK AREA SURFACE SOIL STATISTICAL ANALYSIS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID	Sample Depth (ft bgs)	Date Collected	Manganese (mg/kg)
FS-1	0 - 1	06/12/95	398
FS-2	0 - 1	06/12/95	330
FS-3	0 - 1	06/12/95	1,200
FS-4	0 - 1	06/12/95	290
FS-5	0 - 1	06/12/95	371
FS-6*	0 - 1	06/12/95	280
FS-7	0 - 1	06/12/95	162
FS-8	0 - 1	06/12/95	681
SB-304	0 - 1	02/08/95	6,140
SB-305	0 - 1	02/08/95	232
SB-352	0 - 2	06/28/95	1,120

Notes:
All values are in milligrams per kilogram (mg/kg).
* For duplicate samples, the higher of the two results is presented.

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TABLE II-8
DATASET USED FOR PREVIOUS METAL FEEDSTOCK AREA SOIL COLUMN STATISTICAL ANALYSIS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID	Sample Depth (ft bgs)	Date Collected	Manganese (mg/kg)
FS-1	0 - 1	06/12/95	398
FS-2	0 - 1	06/12/95	330
FS-3	0 - 1	06/12/95	1,200
FS-4	0 - 1	06/12/95	290
FS-5	0 - 1	06/12/95	371
FS-6	0 - 1	06/12/95	280
FS-7	0 - 1	06/12/95	162
FS-8	0 - 1	06/12/95	681
SB-304	0 - 1	02/08/95	6,140
SB-304	2 - 4	02/08/95	9,190
SB-304	6 - 8	02/08/95	1,040
SB-305	0 - 1	02/08/95	232
SB-305	2 - 4	02/08/95	6,820
SB-305	6 - 8	02/08/95	3,830
SB-352	0 - 2	06/28/95	1,120

Notes:
All values are in milligrams per kilogram (mg/kg).
* For duplicate samples, the higher of the two results is presented.

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TABLE II-9
ATASET USED FOR PARKING LOT/BUFFER BASIN AREA SOIL COLUMN STATISTICAL ANALYS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION ARE
SAGINAW, MICHIGAN

Location ID	Sample Depth (ft bgs)	Date Collected	Manganese (mg/kg)
BH9	1 - 2	03/06/07	965
BH9	2 - 4	03/06/07	255
BH10	1 - 2	03/06/07	9,200
BH10	2 - 4	03/06/07	11,900
SB-354	0 - 2	06/28/95	474

Notes:
All values are in milligrams per kilogram (mg/kg).

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Attachment III

Updated Site-Specific PSIC Calculations

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TABLE III-1
ON-SITE WITH VEHICLE TRAFFIC
MDEQ-RRD PSIC CALCULATION

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

GM-SMI Estimated Source Areas:

Metal feedstock	8.6	acres
Railyard	9.5	acres
Total area (all sources)	**18.1**	**acres**
Modifier for 18.1 acres (total source area):	**0.50**	
Modifier for 9.5 acres (Former railyard):	**0.60**	

A. Part 201 Generic PSIC **=(THQ*ED*365)/(EF*ED*(1/RfC)*(1/(PEF/2)** **Assumptions/Comments**

residential =(1*30*365)/(350*30*(1/0.00005)*(1/(**128000000/2**)))
3,338 mg/kg ***approx 3,300*** **for a 0.5 acre PEF =** 1.28E+08

industrial ***generic calculation***
=(1*21*365)/(245*21*(1/0.00005)*(1/(**39500000/2**)))
1,471 mg/kg **approx 1,500** **for a 0.5 acre PEF =** 3.95E+07

B. Site-specific calculation (for Saginaw Malleable):
SMI site-specific PSIC **=(THQ*ED*365)/(EF*ED*(1/RfC)*(1/(PEF)**

Corrected residential PSIC: =((1*30*365)/(350*30*(1/0.00005)*(**1/(128000000/2)**)))*0.6 **assuming railyard size is 10 acres**
2,002

Non-production area PSIC =(1*21*365***2**)/(160*21*(1/0.00005)*(1/(**39500000/2**))) **for 0.5 acre; using MDEQ factors except EF is 160 days**
(6/3/03 HHE) **4,505**
Corrected non-production PSIC **1,126** **for a 18 acre source area and without use of AIR**
2,253 maintenance worker **for a 18 acre source area and with use of AIR**

Production area PSIC =(1*1*365***2**)/(30*1*(1/0.00005)*(1/(**39500000/2**))) **for 0.5 acre; Construction worker EF=30 days and ED=one year**
(6/3/03 HHE) **24,029** **used an adjusted intake rate of 2 in the numerator**
Corrected production PSIC **6,007** **for a 18 acre source area and without use of AIR**
construction worker **12,015** intrusive worker **for a 18 acre source area and with use of AIR**

Part 201 Particulate Emission Factor (PEF) Calculation and Assumptions

=(Q/C)*(1/((Ew*(1-V))+Ev)
=82.33*1/((0.00000055*(1-0.5))+0.00000181) --based on Michigan sites; 50% vegetation cover; 0.5 acre source size
1.28E+08 **for residential**
3.95E+07 **for industrial** 1.97E+07

where:

Dispersion factor (Q/C) =	**82.33**	g/m^2-s per kg/m^3	--based on Michigan sites; 0.5 acre source size
Emission due to wind (Ew) =	5.50E-07	g/m^2-s	--default vegetation cover is 50%; based on a 0.5 acre source size
Emission due to vehicle traffic (res) (Ev) =	3.68E-07	g/m^2-s	
Emission due to vehicle traffic (ind) (Ev) =	1.81E-06	g/m^2-s	
Vegetation cover (V) =	50%		

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TABLE III-2
ON-SITE WITH NO VEHICLE TRAFFIC
MDEQ-RRD PSIC CALCULATION

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

GM-SMI Estimated Source Areas:

Metal feedstock	8.6 acres
Railyard	9.5 acres
Total area (all sources)	**18.1 acres**
Modifier for 18.1 acres (total source area):	**0.50**
Modifier for 9.5 acres (Former railyard):	**0.60**

A. Part 201 Generic PSIC — **=(THQ*ED*365)/(EF*ED*(1/RfC)*(1/(PEF/2)** — **Assumptions/Comments**

residential — =(1*30*365)/(350*30*(1/0.00005)*(1/(**128000000/2**)))
3,338 mg/kg — ***approx 3,300*** — **for a 0.5 acre PEF =** 1.28E+08

industrial — ***generic calculation*** — **for a 0.5 acre PEF =** 3.95E+07
=(1*21*365)/(245*21*(1/0.00005)*(1/(**39500000/2**)))
1,471 mg/kg — **approx 1,500**

B. Site-specific calculation (for Saginaw Malleable):

SMI site-specific PSIC — **=(THQ*ED*365)/(EF*ED*(1/RfC)*(1/(PEF)**

Corrected residential PSIC: — =((1*30*365)/(350*30*(1/0.00005)*(**1/(128000000/2)**)))*0.6 — **assuming railyard size is 10 acres**
2,002

Corrected residential PSIC: — =((1*30*365)/(350*30*(1/0.00005)*(**1/(299000000/2)**)))*0.6 — **assuming railyard size is 10 acres**
Assuming no vehicular traffic — **4,683**

Non-production area PSIC — =(1*21*365***2**)/(160*21*(1/0.00005)*(1/(**39500000/2**))) — **for 0.5 acre; using MDEQ factors except EF is 160 days**
(6/3/03 HHE) — **4,505**
Corrected non-production PSIC — **1,126** — **for a 18 acre source area and without use of AIR**
2,253 maintenance worker — **for a 18 acre source area and with use of AIR**

Non-production area PSIC — =(1*21*365***2**)/(160*21*(1/0.00005)*(1/(**299000000/2**))) — **for 0.5 acre; using MDEQ factors except EF is 160 days**
(assuming no vehicular traffic) — **34,148**
Corrected non-production PSIC — **8,537** — **for a 18 acre source area and without use of AIR**
17,074 maintenance worker — **for a 18 acre source area and with use of AIR**

Production area PSIC — =(1*1*365***2**)/(30*1*(1/0.00005)*(1/(**39500000/2**))) — **for 0.5 acre; Construction worker EF=30 days and ED=one year**
(6/3/03 HHE) — **24,029** — **used an adjusted intake rate of 2 in the numerator**
Corrected production PSIC — **6,007** — **for a 18 acre source area and without use of AIR**
construction worker — **12,015** intrusive worker — **for a 18 acre source area and with use of AIR**

Part 201 Particulate Emission Factor (PEF) Calculation and Assumptions

=(Q/C)*(1/((Ew*(1-V))+Ev)
=82.33*1/((0.00000055*(1-0.5))+0.00000181)
1.28E+08 **for residential** — --based on Michigan sites; 50% vegetation cover; 0.5 acre source size
3.95E+07 **for industrial** 1.97E+07

where:

Dispersion factor (Q/C) =	**82.33**	g/m^2-s per kg/m^3	--based on Michigan sites; 0.5 acre source size
Emission due to wind (Ew) =	5.50E-07	g/m^2-s	--default vegetation cover is 50%; based on a 0.5 acre source size
Emission due to vehicle traffic (res) (Ev) =	3.68E-07	g/m^2-s	
Emission due to vehicle traffic (ind) (Ev) =	1.81E-06	g/m^2-s	
Vegetation cover (V) =	50%		

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TABLE III-2
ON-SITE WITH NO VEHICLE TRAFFIC
MDEQ-RRD PSIC CALCULATION

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Part 201 Particulate Emission Factor (PEF) Calculation and Assumptions Assuming<u>NO</u> Vehicular Traffic

=(Q/C)*(1/((Ew*(1-V))+Ev)
=82.33*1/((0.00000055*(1-0.5))+0.00000181) --based on Michigan sites; 50% vegetation cover; 0.5 acre source size

2.99E+08 **for residential**

2.99E+08 **for industrial**

where:

Dispersion factor (Q/C) =	**82.33**	g/m^2-s per kg/m^3	--based on Michigan sites; 0.5 acre source size
Emission due to wind (Ew) =	5.50E-07	g/m^2-s	--default vegetation cover is 50%; based on a 0.5 acre source size
Emission due to vehicle traffic (res) (Ev) =	0.00E+00	g/m^2-s	
Emission due to vehicle traffic (ind) (Ev) =	0.00E+00	g/m^2-s	
Vegetation cover (V) =	50%		

Ev = K*1.7*(s/12)*(S/48)*(W/2.7)^0.7*(w/4)^0.5*((365-p)/365)

	Um	4.62	
	Utadj	9.51	m/s
	Fx	0.48	
PM10 emission per vehicle-kilometer of travel (kg/VKT)	Emission	0.1627989	kg/km
particle size multiplier	Kpart (K)	0.36	
silt content of road	silt (s)	15	
mean vehicle speed	speed (S)	20	
mean vehicle weight	weight (W)	2	
mean number of wheels	wheels (w)	4	
number of days with at least 0.254 mm of precipitation per yea	precip (p)	135	
Size of site		0.5	acres
Size of building		25	feet per side
Round trips/day	trips	0	vehicles/day
Length of driveway	length	45	meters
Time period	time	307	days
Area of building	Building	58.0625	m^2
Dimension of site		44.98	meters per side
Area of site	Site	1965.1379	m^2 minus building
Dist. Travelled/day		0	kilometers
Dist traveled/year	Distance	0	km/year
Vehicle Emission	Vehicle Emissio	0	kg/year
Annual Averaging Time		0	

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TABLE III-3
OFF-SITE WITH AND WITHOUT VEHICLE TRAFFIC; RAILYARD AS SOURCE AREA
MDEQ-RRD PSIC CALCULATION

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

GM-SMI Estimated Source Areas for Off-Site:

Railyard	9.5 acres
Total area (all sources)	**9.5 acres**

Modifier for 9.5 acres (Former railyard): **0.60**

A. Part 201 Generic PSIC **=(THQ*ED*365)/(EF*ED*(1/RfC)*(1/(PEF/2)** **Assumptions/Comments**

residential =(1*30*365)/(350*30*(1/0.00005)*(1/(**128000000/2**))
3,338 mg/kg ***approx 3,300*** **for a 0.5 acre PEF =** 1.28E+08

industrial ***generic calculation***
=(1*21*365)/(245*21*(1/0.00005)*(1/(**39500000/2**)))
1,471 mg/kg **approx 1,500** **for a 0.5 acre PEF =** 3.95E+07

B. Site-specific calculation (for Saginaw Malleable):
SMI site-specific PSIC **=(THQ*ED*365)/(EF*ED*(1/RfC)*(1/(PEF)**

Corrected residential PSIC: =((1*30*365)/(350*30*(1/0.00005)*(**1/(128000000/2**)))*0.6 **assuming railyard size is ~10 acres**
2,003

Corrected residential PSIC: =((1*30*365)/(350*30*(1/0.00005)*(**1/(299000000/2**)))*0.6 **assuming railyard size is ~10 acres**
Assuming no vehicular traffic **4,683**

Part 201 Particulate Emission Factor (PEF) Calculation and Assumptions

=(Q/C)*(1/((Ew*(1-V))+Ev)
=82.33*1/((0.00000055*(1-0.5))+0.00000181) --based on Michigan sites; 50% vegetation cover; 0.5 acre source size
1.28E+08 **for residential**
3.95E+07 **for industrial**

where:

Dispersion factor (Q/C) =	**82.33**	g/m^2-s per kg/m^3	--based on Michigan sites; 0.5 acre source size
Emission due to wind (Ew) =	5.50E-07	g/m^2-s	--default vegetation cover is 50%; based on a 0.5 acre source size
Emission due to vehicle traffic (res) (Ev) =	3.68E-07	g/m^2-s	
Emission due to vehicle traffic (ind) (Ev) =	1.81E-06	g/m^2-s	
Vegetation cover (V) =	50%		

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TABLE III-3
OFF-SITE WITH AND WITHOUT VEHICLE TRAFFIC; RAILYARD AS SOURCE AREA
MDEQ-RRD PSIC CALCULATION

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Part 201 Particulate Emission Factor (PEF) Calculation and Assumptions Assuming NO Vehicular Traffic

=(Q/C)*(1/((Ew*(1-V))+Ev)
=82.33*1/((0.00000055*(1-0.5))+0.00000181) --based on Michigan sites; 50% vegetation cover; 0.5 acre source size

2.99E+08 **for residential**

2.99E+08 **for industrial**

where:

Dispersion factor (Q/C) =	**82.33**	g/m^2-s per kg/m^3	--based on Michigan sites; 0.5 acre source size
Emission due to wind (Ew) =	5.50E-07	g/m^2-s	--default vegetation cover is 50%; based on a 0.5 acre source size
Emission due to vehicle traffic (res) (Ev) =	0.00E+00	g/m^2-s	
Emission due to vehicle traffic (ind) (Ev) =	0.00E+00	g/m^2-s	
Vegetation cover (V) =	50%		

Ev = K*1.7*(s/12)*(S/48)*(W/2.7)^0.7*(w/4)^0.5*((365-p)/365)

	Um	4.62		
	Utadj	9.51	m/s	
	Fx	0.48		
PM10 emission per vehicle-kilometer of trave	Emission	0.1627989	kg/km	
particle size multiplier	Kpart	0.36		Kpart (K)
silt content of road	silt	15		silt (s)
mean vehicle speed	speed	20		speed (S)
mean vehicle weight	weight	2		weight (W)
mean number of wheels	wheels	4		wheels (w)
number of days with at least 0.254 mm of precipitation per year	precip	135		precip (p)
Size of site		0.5	acres	
Size of building		25	feet per side	
Round trips/day	trips	0	trips away from home/day	each trip assumes one time driving in and one time out of the driveway
Length of driveway	length	20	meters	
Time period	time	350	days	
Area of building	Building	58.0625	m^2	
Dimension of site		44.98	meters per side	
Area of site	Site	1965.1379	m^2 minus building	
Dist. Travelled/day		0	kilometers	
Dist traveled/year	Distance	0	km/year	
Vehicle Emission	Vehicle Emissio	0	kg/year	
Annual Averaging Time		0.00E+00		

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Appendix C

Summary Operation, Maintenance and Monitoring Plan

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Appendix C

Summary Operation, Maintenance and Monitoring Plan

General Motors Corporation Saginaw Malleable Iron Plant Property, and REALM, Inc. Green Point Landfill and Drum Remediation Area Saginaw, Michigan

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July 30, 2008
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1. Introduction

1.1 Purpose of Document

The purpose of this document is to provide a summary of the proposed operation, maintenance, and monitoring (OM&M) activities associated with Remedial Action Plan (RAP) implementation at the General Motors Corporation (GM) Saginaw Malleable Iron (SMI) Plant, and Remediation and Liability Management Company, Inc. (REALM, Inc.) Green Point Landfill and Drum Remediation Area (DRA) (the Site), located in Saginaw, Michigan. Some activities are currently ongoing under separate OM&M plans previously approved by the Michigan Department of Environmental Quality (MDEQ).

1.2 Background

This section presents a summary description of the Site, and also the history of each of the Site areas addressed by this plan.

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1.2.1 Site Location and Physical Setting

The Site encompasses approximately 273 acres. The SMI Plant Property consists of the northern portion of the Site and includes the inactive SMI Plant and surrounding ancillary areas, two closed Type III Landfills, two stormwater ponds, and an inactive Water Recycle System that includes a buffer basin. The southern portion of the Site (now owned by REALM, Inc.) includes the closed Green Point Landfill and the DRA, where drums were previously discovered, excavated, and removed.

The Site is located approximately 2,000 feet north of the confluence of the Tittabawassee and Shiawassee Rivers and is located on the western half of Section 35, T12N, R4E, in the city of Saginaw, Saginaw County, Michigan. The Site is bounded to the west by the Delphi Automotive Systems Corporation (Delphi) former Saginaw Steering Systems Plant 2 (Plant 2), a junkyard, and another property used for storage of miscellaneous debris; to the east by the Saginaw River, a strip of property east of the Green Point Landfill previously owned by Consumers Power Company and currently owned by REALM, Inc, and property previously used for agricultural purposes that now contains a mitigation wetland (this agricultural property was once owned by Ruben Schultz and the State of Michigan, and is now owned by REALM, Inc.); to the north by commercial, residential, and industrial properties; and to the south by farm fields (Figure C-1).

1.2.2 History of Site Areas Addressed by This Plan

Light Nonaqueous Phase Liquid (LNAPL) Assessment and Remediation Area

The LNAPL Assessment and Remediation Area is located within the Unpaved Area southwest of the SMI Plant building, between SMI and the adjacent Delphi property (Figure C-2). Three 20,000-gallon aboveground storage tanks (ASTs) that previously contained quench oil are located along the fenced western edge of the Unpaved Area within a concrete secondary containment structure. The Unpaved Area was also used to store roll-off boxes of municipal waste and miscellaneous other plant materials.

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LNAPL was observed on the water table within the Unpaved Area. In order to assess the horizontal and vertical extent of LNAPL in this area, a series of soil borings and monitoring wells were installed. A detailed discussion of the field investigations is presented in the *LNAPL Assessment and Recovery Remedial Investigation Interim Report* (BBL, November 1995).

In 1997, an automated LNAPL recovery system was installed. The system originally consisted of a four-well groundwater and LNAPL recovery system; however, in October 2001, the fourth recovery well, which was located on the adjacent Delphi property, was disconnected from the system, as it was no longer collecting LNAPL. A description of OM&M of the LNAPL recovery system was presented in the *LNAPL Recovery System Operation and Maintenance Plan* (BBL, October 2000). A summary of key elements of the O&M for this system is included in Sections 2 and 3 of this plan.

As of October 2007, when the automated system was shut down temporarily pending building demolition, the automated LNAPL recovery system had recovered approximately 3,700 gallons of LNAPL. Minor quantities of LNAPL are currently being bailed on a monthly basis from monitoring wells in the area. Prior to installation of the automated system, approximately 9,000 gallons of LNAPL and LNAPL mixed with groundwater were removed by hand bailing and vacuum truck operations. The volume of LNAPL observed in the subsurface has decreased significantly since operation of the recovery system was initiated. The rate of LNAPL recovery has also decreased. This was anticipated as the recovery process removes the easily recoverable LNAPL from the subsurface. Re-evaluation of the effectiveness of continuing operation of the recovery system will occur on a regular basis. Any proposed changes will be discussed with MDEQ prior to implementation.

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Quench Pit Area

The Quench Pit Area is located in the former Annealing Department inside the central portion of the SMI Plant building (Figure C-2). The area contains three quench pits, referred to as direct quench pits #1, #2, and #3. Quench pit #1 was installed in 1966. Quench pits #2 and #3 were installed in 1970. The pits are constructed of stainless steel panels welded together to form a double box or shell. Each quench pit typically held approximately 25,000 gallons of quench oils. The quench pits were used during a heat treatment process.

A subsurface investigation completed in the Quench Pit Area identified LNAPL in the subsurface. The Quench Pit Area investigation results are presented in the *Quench Pit Investigation Report* (BBL, April 1998).

A hand bailing program was initially implemented to recover LNAPL, and approximately 6,500 gallons of LNAPL were removed from 1997 through 2002. An automated LNAPL recovery skimmer pump was installed at the Quench Pit Area in February 2002. The ongoing operation and performance of this pump has been reported in the monthly reports to the MDEQ. As reported to MDEQ, as of September 2007, this system had removed approximately 2,400 gallons of LNAPL. The monitoring wells are currently temporarily being manually bailed pending the hook up of a power supply to the automated system.

Green Point Landfill

The Green Point Landfill is located in the southern portion of the Site (Figure C-2). The Green Point Landfill was owned (during its operating life) by Ruben Schultz and was operated by various commercial enterprises between the 1950s and 1978. The landfill was reportedly used for the disposal of municipal waste, foundry sand, and unspecified quantities and types of waste from a variety of industrial facilities (RMT, 1979). In 1978, the Green Point Landfill stopped receiving waste and was closed in 1978. GM purchased the property containing the landfill in 1982.

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Several environmental investigations have been conducted at the Green Point Landfill, dating back to 1976. Leachate samples collected from the Green Point Landfill contained select constituents of concern (COCs) as summarized in the Human Health Evaluation (HHE) Report. However, the exposure pathways associated with the leachate were determined to be incomplete and were eliminated from further consideration. A summary of these investigations is provided in the *Remedial Investigation/ Feasibility Study Work Plan* (BBL, October 1997a) and in the RI Report (BBL, July 2001).

In accordance with the Consent Judgment, GM and WMI proposed the design and installation of a cap for the landfill consistent with current closure requirements for solid waste municipal landfills. This design was approved by the MDEQ in a letter dated March 7, 1996. Construction of the landfill cap (consistent with Part 115 of Michigan Act 451) was completed and the *Green Point Landfill Cover System Certification Report* (BBL, January 2000) was submitted to the MDEQ. MDEQ has approved the Green Point Landfill remedial activities as an Interim Response Action (IRA) (Brouillet, B., July 2000).

O&M activities at the Green Point Landfill are implemented in accordance with provisions contained in the *Final Engineering Design Report for the Green Point Landfill* (BBL, January 1998) and *Post-Closure Environmental Monitoring Plan* included as Appendix K to the Engineering Design Report, with modifications approved by the MDEQ. This OM&M Plan is based on conducting these activities for a period of up to 30 years from the date of the landfill cover system certification (i.e., January 2000). However, these activities or an appropriate subset of these activities may be continued beyond 30 years if, at that time, the monitoring data show that an ongoing risk remains. O&M activities will be reviewed on an annual basis and recommendations for modification, as needed, will be included in the annual monitoring report for MDEQ's approval.

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Saginaw River Boundary

For purposes of this RAP, the Saginaw River boundary is defined as a narrow (approximately 20 - 100 feet wide) strip of land separating the Secondary Settling Pond from the Saginaw River and a portion of the Site located east of the eastern Type III Landfill and adjacent to the Saginaw River (Figure C-2).

Several monitoring wells and soil borings were installed in the Saginaw River Boundary area to characterize surface and subsurface conditions in this area. The investigation results indicated that surface soil in the Saginaw River Berm Area contained manganese at concentrations exceeding the site-specific cleanup criteria (SSCC) value and that select inorganics and PCBs were sporadically detected in groundwater at concentrations above the MDEQ Generic GSI criteria. As discussed in the RI Report (BBL, July 2001) and FS Report (BBL, July 2003b), historical PCB detections at river boundary wells are believed to be the result of the entrainment of soil particles from the berm, that contain low levels of PCBs. These soil particles are believed to have been artificially mobilized by sampling activities, and therefore do not indicate PCB transport in groundwater. Groundwater samples collected following an ultra-low-flow sampling methodology have generally been non-detect for PCBs; however sporadic PCB detections at low concentrations have been observed at one or two wells. This pattern of the absence or sporadic detection of low concentrations of PCBs at the river perimeter wells is consistent with the entrainment of soil particles in the samples. PCBs were rarely detected in filtered samples, when collected. A few inorganics have been detected sporadically above GSI criteria at river boundary wells. Arsenic, manganese selenium, and thallium have been detected above the GSI value at one or more monitoring well during several post-RI monitoring events. Due to uncertainty with respect to detections of these inorganic constituents, a continuing monitoring program, using ultra-low-flow sampling methods, is proposed. The groundwater monitoring plan will be reviewed on an annual basis and recommendations for any changes to the monitoring program will be included in the annual monitoring report for MDEQ's approval.

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DRA/Former Hillock Area

The DRA/Former Hillock Area is located in the southwest portion of the Site (Figure C-2). Prior to GM's purchase of this property in 1982, the DRA/Former Hillock Area was used for disposal purposes (several drums, drum fragments, and wastes associated with drums were identified in this area). There is no evidence to suggest that the drums found in the DRA/Former Hillock Area, or in the vicinity of the DRA/Former Hillock Area, came from any GM facility. GM removed the impacted DRA/Former Hillock Area materials and backfilled the excavated areas with clean fill.

During a test pit investigation program conducted in the DRA/Former Hillock Area in August 2000 to investigate the source of several VOCs in the groundwater within the DRA/Former Hillock Area, a concrete tile drain pipe was uncovered. The concrete tile drain pipe extends from the neighboring upgradient property into the northern portion of the former DRA/Former Hillock Area. Sampling of materials in the pipe indicated that the pipe discharges volatile organic compounds-(VOC) impacted water from an offsite source. The DRA/Former Hillock Area impacted with offsite VOCs is limited in size and the media affected is shallow groundwater.

Former Railyard Area

The Former Railyard Area is located north of the SMI Plant building (Figure C-2). The railroad tracks that provided direct access to this operations area have been removed, and the area is used for the temporary storage of miscellaneous process materials and equipment.

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Investigation activities conducted in the Former Railyard Area as part of the RI indicated the presence of PCBs in surface soil at concentrations above the MDEQ generic values. To address the presence of PCBs, a surface soil excavation program was implemented in this area. Post-excavation confirmatory soil sampling results indicated that PCBs were not present in the soil samples at concentration above MDEQ generic criteria. However, select inorganics were detected at concentrations above MDEQ generic criteria for particulate inhalation. As indicated in the HHE (Appendix A of the FS Report [BBL, July 2003a]), these inorganics were detected at concentrations below the calculated SSCC for soil and therefore are not considered to present an exposure risk.

Terminated Type III Landfills

The Site contains two closed, Type III industrial solid waste landfills (referred to as the eastern and central Type III landfills, as identified by their relative location on the property). These two landfills received spent foundry sands, scrubber residues, slag, and other materials approved for Type III disposal (e.g., refractory brick and core butts). The eastern Type III landfill started receiving waste in 1979 and was closed in 1984. The central Type III landfill received wastes from 1984 (after the closure of the eastern landfill) until approximately 1990, when it was closed. Waste characterization was conducted as part of landfill permit operating requirements, and closure certifications for these two landfills have been filed with the MDEQ.

Former CTC Parking Lot

The former CTC Parking Lot is located east of the plant and immediately north of the Previous Metal Feedstock Area. Elevated concentrations of manganese have been detected in surface soil in this area of the Site. In 2001, approximately 8-inches of clean fill were placed over the area and the area was seeded with grass.

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I27.7 Area

The I27.7 Area is located in the Foundry Department inside the northern portion of the SMI Plant building (Figure C-2). Polychlorinated biphenyl- (PCB-) containing oil was spilled from a transformer onto exposed soil in the I27.7 Area in 1971. The exposed soil was covered with concrete in 1972.

Melting Department

The Melting Department Area is located in the northeastern portion of the SMI Plant building (Figure C-2). The Melting Department started operation in approximately 1970 to 1975, supplying molten iron for the production of castings. Iron is melted by electric induction melting furnaces powered by five separate, numbered power supplies (Power Supply 1, 2, 3, 4, and 5). Although the features associated with each power supply vary, typical features include a control room, transformer room, generator room, hydraulic room, pit, and BUSS tunnel. PCBs were found in soil below the capacitor rooms, and following an excavation program, residual PCBs remain in a limited area.

Parking Lot North of Buffer Basin

The Parking Lot North of the Buffer Basin is located between the Buffer Basin and the Previous Metal Feedstock Area. The parking lot is paved and several borings completed through the pavement in 2007 show a one foot thick layer of paving and concrete above foundry sand fill. Manganese was detected below the paving at concentrations above the generic MDEQ criteria for particulate inhalation.

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1.3 Document Format

The remainder of this document is presented in three sections. Section 2 provides a general description of the existing and proposed Site operation and maintenance (O&M) activities, and Section 3 provides a general description of existing and proposed groundwater monitoring activities for the LNAPL Assessment and Remediation Area, Quench Pit Area, the Green Point Landfill, the Saginaw River Boundary, and the Former UST #7 Area. Section 4 provides a contingency plan for the monitoring activities to be conducted for various areas of the Site.

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2. Operation and Maintenance Activities

2.1 General

Routine O&M tasks will be completed to ensure the ongoing effectiveness of various Site controls discussed further in this document. Permanent markers will be installed in each of the Site areas identified in the Restrictive Covenants for the Site, and described in this OM&M Plan. The markers will be inspected on an annual basis, and maintenance of the markers will be completed as needed. Proposed modifications may be presented in the annual progress reports, or in other written communication, and changes will be implemented following MDEQ approval.

2.2 LNAPL Assessment and Remediation Area

The following section describes O&M activities of the LNAPL Assessment and Remediation Area.

2.2.1 General

The LNAPL recovery system within the LNAPL Assessment and Remediation Area (Figure C-2) was constructed in 1997. Note that this automated system is currently not operating due to the interruption of power as a result of planned plant demolition activities. Manual bailing of the monitoring and recovery wells containing a recoverable amount of LNAPL is being conducted on a monthly basis. The amount of LNAPL present in the subsurface in this area has decreased substantially, and only small quantities of LNAPL are recovered each month. As a result, GM plans to re-evaluate the recovery activities implemented in this area, and will submit a proposal to the MDEQ for appropriate modifications. Pending agreement with MDEQ on any system modifications, the wells will continue to be manually bailed until power is restored and then the system will be operated as described below.

On behalf of GM, the O&M Contractor performs O&M activities associated with the recovery system in accordance with a document entitled *LNAPL Recovery System Operation and Maintenance Plan* (O&M Plan; BBL, October 2000). The LNAPL recovery system consists of the following major elements:

- three recovery wells (RW-1 through RW-3; Figure C-2);
- LNAPL recovery and groundwater depression pumps and associated controls for the recovery wells (RW-1 also contains a skimmer pump);
- LNAPL and groundwater transfer piping within containment piping from each recovery well to the treatment system enclosure;
- a 20-foot by 25-foot treatment system enclosure; and

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- treatment system equipment, including:

    - one oil/water separator (OWS);
    - one OWS LNAPL transfer pump and associated controls;
    - one OWS water transfer pump and associated controls;
    - two bag filters in parallel and associated controls;
    - two 700-pound granular activated carbon (GAC) units in series;
    - one treatment system enclosure sump pump and associated controls;
    - one in-line mixer (installed in August 1998);
    - one hydrogen peroxide metering pump (installed in August 1998);
    - three LNAPL collection totes (two totes as part of the system and a third as a spare);
    - one rain gauge; and
    - one autodialer.

Record drawings associated with the recovery system are provided in Appendix A of the O&M Plan.

The O&M Contractor is responsible for conducting routine O&M activities at the LNAPL recovery system on behalf of GM. In summary, the O&M activities include managing water, LNAPL, spent carbon, and other waste that could potentially contain VOCs, semi-volatile organic compounds (SVOCs), inorganic compounds, and PCBs. In the event any issues or problems are observed with the operation of the LNAPL recovery system, the O&M Contractor must immediately notify GM verbally and document the issue or problem and the resolution to the issue or problem within 2 weeks. Summaries of performance of the recovery system are currently prepared and submitted to the MDEQ within monthly reports for the RI/FS/RAP activities. Following acceptance of the RAP, an annual report will be prepared and submitted to the MDEQ in place of the monthly reports to present summary information regarding system performance.

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2.2.2 LNAPL Recovery Well Inspections

Each recovery well is located within 48-inch-diameter by 48-inch-deep concrete manhole. Access to each manhole is provided by a heavy-duty, 24-inch by 24-inch iron cover. Within each manhole is an 18-inch-diameter well riser pipe that contains an LNAPL recovery pump and a groundwater depression pump. Recovery well RW-1 also contains a skimmer pump. Also within each manhole is a ½-inch-diameter nylon LNAPL transfer hose, 1-inch-diameter rubber groundwater transfer hose, associated valves, and electrical power and control wiring. The LNAPL and groundwater transfer hoses enter a 3-inch-diameter containment pipe at the exit point of each manhole and continue through the 3-inch-diameter containment pipe until entry into the treatment enclosure.

Each recovery well is inspected to determine the structural integrity of the concrete manhole and cover; the well riser pipe/concrete grout seal; and the LNAPL and groundwater pumps, transfer hoses, electrical wires, and valves. The hoses and valves within the manhole are inspected for any sign of leakage, and the containment pipe inspected to determine if either the LNAPL or groundwater transfer hoses are leaking between the manhole and the treatment enclosure.

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2.2.3 Treatment Enclosure and Associated Equipment Inspections

The LNAPL recovery system equipment (other than the LNAPL and groundwater well pumps) is located within an insulated, ventilated, and heated 20-foot by 25-foot enclosure. The LNAPL recovery system equipment includes the following major components:

Equipment Description	Equipment Purpose
OWS	Separates LNAPL from groundwater pumped from recovery wells.
OWS LNAPL Transfer Pump	Transfers LNAPL collected in the OWS to LNAPL collection totes.
OWS Water Transfer Pump	Transfers groundwater collected in the OWS to other groundwater treatment equipment.
Hydrogen Peroxide Metering Pump	Introduces a metered amount of hydrogen peroxide to the in-line mixer.
In-Line Mixer	Mixes a metered amount of hydrogen peroxide into groundwater stream.
Bag Filter Units	Removes particulates and emulsified LNAPL from water to minimize fouling of GAC units.
GAC Units	Removes PCBs, other organics, and metals from groundwater prior to discharge to on-Site sanitary sewer.
Treatment Enclosure Sump Pump	Transfers any LNAPL or water collected in the treatment building sump to the OWS.
LNAPL Collection Totes	Provides temporary storage for LNAPL pending sampling, analysis, and disposal.

Other ancillary equipment includes manual and automatic valves; pressure gauges; pressure switches; treated groundwater discharge flow meter; pump on and off switches for the OWS and treatment building sump; and high level alarm switches for the OWS, the treatment building sump, LNAPL collection totes, and HVAC system.

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The following inspections are performed on each component of the LNAPL recovery system, as stated in the O&M Plan:

- OWS - To verify structural integrity and proper operation per manufacturer's literature.
- OWS LNAPL Transfer Pump - To verify proper operation per manufacturer's literature.
- In-Line Mixer - To verify proper operation per manufacturer's literature.
- Hydrogen Peroxide Metering Pump - To verify proper operation per manufacturer's literature.
- OWS Water Transfer Pump - To verify proper operation per manufacturer's literature.
- Bag Filter Units - For accumulation of solids or fouling that could affect filter performance. Pressure drop through the bag filter unit(s) will be determined using the pressure gauges located upstream and downstream of the bag filter unit(s).
- GAC Filter Units - For structural integrity and proper operation per manufacturer's literature. Pressure drop through the GAC filter units will be determined using the pressure gauges located upstream and downstream of the GAC filter units.

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- LNAPL Collection Totes - For structural integrity and volume of collected LNAPL. Volume of collected LNAPL must be tracked on an Access® database or Excel® spreadsheet for reporting to the state.

- LNAPL Process Piping - For structural integrity. Pressure gauges on the process piping will be checked and pressure differentials along the process piping will be calculated to estimate scaling and fowling of the process piping.

- Treatment Enclosure - For structural integrity and proper operation of floor, roof, siding, doors, and protective bollards.

- Treatment Enclosure, Sump and Sump Pump - For structural integrity and proper operation using manufacturer's literature.

- Treatment Enclosure, HVAC and Lighting Systems - To verify proper operation per manufacturer's literature.

- Check calibration of lower explosive limit (LEL) meter.

- General check for leaks in piping and tanks.

- General housekeeping and cleaning of treatment building.

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2.2.4 Maintenance Activities

The O&M Contractor performs various routine maintenance tasks to ensure the ongoing effectiveness of the LNAPL recovery system, and any maintenance needed to correct problems identified during the LNAPL recovery system inspections. All maintenance activities are recorded on an LNAPL Recovery System Maintenance Log. All maintenance is conducted according to applicable equipment warranties and per the O&M manuals provided by equipment vendors for the LNAPL recovery system. Appendix C to the O&M Plan contains the O&M manuals and warranties provided from vendors.

The O&M Contractor is required to perform routine maintenance during the inspection of the LNAPL recovery system. Non-routine maintenance is performed as soon as is feasible when a problem has been identified. Problems that threaten worker health and safety or the environment are dealt with as soon as possible. The O&M Contractor notifies GM of any non-routine required repairs prior to completing the repairs, although notification will not hold up any urgent repairs. All non-routine system repairs are addressed in a timely manner. All alarms are evaluated within 24 to 48 hours of the alarm.

If the LNAPL recovery system is off-line for more than 30 days, MDEQ will be notified in the next progress report submittal, and actions to be taken to get the system re-started will be indentified.

The O&M Contractor cleans debris off of the LNAPL recovery well concrete manholes and hinged cast iron covers so that the hinged covers operate properly. Any cracks or leaks in the concrete manhole, broken hinges, or leaks at conduit and pipe penetration seals are repaired. Recovery wells with covers open or removed are temporarily barricaded at all times to prevent traffic accidents. At a minimum, the O&M Contractor performs the following routine maintenance procedures on the LNAPL recovery well pumps, hoses, valves, hand cranks, steel cables, electrical cables, and connectors and appurtenances.

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Equipment Description	Routine Maintenance Procedures
LNAPL Pump/Skimmer Pump	• Check pump discharge flow rate. • Measure thickness of LNAPL layer in well. • Maintain pump per manufacturer's recommendations. • Clean pump and remove any accumulated dirt.
Water Pump	• Check pump discharge flow rate. • Check pump motor current draw and compare to appropriate motor current draw found in pump manufacturer's literature. • Maintain pump per manufacturer's recommendations. • Clean pump and remove any accumulated dirt.
Metering Pump	• Check pump performance against manufacturer's literature. • Maintain pump per manufacturer's recommendations. • Clean pump and remove any accumulated dirt.
Hand Crank and Steel Cable	• Check for proper crank operation and condition of steel cable.
LNAPL and Water Discharge Hoses and Valves	• Check condition of hoses and valves.
Electrical Power and Control Cables	• Check condition of electrical power and control cables.

The O&M Contractor also performs other non-routine maintenance activities necessary to keep the LNAPL recovery pumps in good working condition.

The O&M Contractor performs (at a minimum) the following routine maintenance procedures:

Equipment Description	Routine Maintenance Procedures
Treatment Enclosure	• Maintain heated pre-engineered building per manufacturer's recommendations. • Maintain heated pre-engineered building in a clean, neat, and organized condition.
Treatment Enclosure Sump Pump	• Maintain per manufacturer's recommendations.
OWS	• Clean coalescing screen as needed and maintain unit per manufacturer's recommendations.
OWS LNAPL Transfer Pump	• Maintain per manufacturer's recommendations.
OWS Water Transfer Pump	• Maintain per manufacturer's recommendations.
Hydrogen Peroxide Pump	• Maintain per manufacturer's recommendations.
Bag Filter Units	• Provide replacement filters and replace bag filter elements, as needed, when the differential pressure increases and maintain filter housings per manufacturer's recommendations.
GAC Filter Units	• Replace carbon in primary GAC unit if analytical results of water testing indicate breakthrough of PCBs in the primary unit. During carbon replacement, the primary GAC unit will be replaced with the secondary GAC unit and the newly rebedded carbon unit will be positioned as the secondary GAC unit. • Allow carbon to sit in water for a minimum of 8 to 12 hours after filling to allow air to leave system.
LNAPL Collection Totes	• Clean high level float and switches, as needed, to maintain proper operation. • Drain off any water that accumulates in the collection tote to the enclosure sump using drain valve and hose at bottom of collection tote. • Transfer LNAPL into GM-provided containers, as needed, to maintain sufficient LNAPL storage capacity.
Process Control Panel	• Maintain per manufacturer's recommendations.
Autodialer	• Maintain per manufacturer's recommendations.
Rain Gauge	• Maintain per manufacturer's recommendations.
LEL Meter	• Calibrate per manufacturer's recommendations.

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The O&M Contractor performs other non-routine maintenance activities such as cleaning or replacing well pumps, replacing cut or cracked hoses and electrical cables, making repairs to treatment enclosure and floor, or other measures necessary to keep the LNAPL recovery system equipment in good working condition.

The maintenance performed by the O&M Contractor is recorded on the LNAPL Recovery System Maintenance Log.

2.2.5 Transport and Disposal Activities

The O&M Contractor is responsible for the on-Site transport of waste materials generated during operation of the LNAPL recovery system to a designated storage area. The O&M Contractor arranges to change out the spent carbon. All waste containers are labeled in accordance with Department of Transportation (DOT) regulations at 49 CFR 107 and 171-189, as well as applicable Resource Conservation and Recovery Act (RCRA) and Toxic Substances Control Act (TSCA) regulations.

The O&M Contractor is responsible for on-Site handling and coordinating with GM environmental personnel for the off-Site transport and disposal of the recovered LNAPL, spent carbon, and other waste generated during O&M activities. Offsite transport and disposal activities are conducted in accordance with Section 5 of the O&M Plan. Information related to off-Site transport and disposal activities is included in the O&M Contractor's annual report to the GM Site contact.

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2.3 Quench Pit Area

The LNAPL recovery system in the Quench Pit Area, which is not currently operating because of upcoming demolition activities, consists of an LNAPL skimmer recovery pump located at well QPTW-3. LNAPL is discharged to a storage tote, and the LNAPL is shipped offsite on an as needed basis for disposal. The system is monitored on a regular basis to track recovery progress and maintain system operation. Manual bailing of the wells containing a recoverable thickness of LNAPL is being completed on a monthly basis, pending re-start of the automated system once electricity can be re-routed to the system.

2.4 Green Point Landfill

The following section describes O&M activities at the Green Point Landfill.

2.4.1 General

O&M activities at the Green Point Landfill are implemented in accordance with provisions contained in the *Final Engineering Design Report for the Green Point Landfill* (BBL, January 1998). This OM&M Plan is based on conducting these activities for a period of up to 30 years from the date of the landfill cover system certification (i.e., January 2000). However, these activities or an appropriate subset of these activities may be continued beyond 30 years if, at that time, the monitoring data show that an ongoing risk remains. O&M activities will be reviewed on an annual basis and recommendations for modification, as needed, will be included in the annual monitoring report for MDEQ's approval.

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General activities associated with O&M include maintaining the following:

- integrity and effectiveness of the cover system, including erosion controls;
- maintaining and monitoring the groundwater monitoring system;
- passive gas venting system;
- environmental monitoring system; and
- created mitigation wetlands.

2.4.2 Facility Inspections

Inspections of the Green Point Landfill currently occur on a bi-annual basis. Based on the results of eight years of inspections, it is proposed that future monitoring be conducted on an annual basis. The inspections will be made during completion of the annual groundwater sampling activities described in Section 3. Those items assessed during the inspections include the following:

- cover system;
- surface-water drainage system;
- passive gas venting system;
- groundwater monitoring wells;
- surface-water monitoring points;
- Site access and security system;
- wetlands; and
- overall Site appearance and aesthetics.

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2.4.3 Landfill Cover System

Cover maintenance and repair will be required if an inspection reveals excessive settlement that causes ponding of surface water, erosion of the soil from the cover, slope failure, loss of vegetation, and cracking and/or other disturbance of the landfill cover system.

Excessive settlement that causes ponding on the cover will be repaired by stripping away the soils above the barrier layer, placing and compacting low permeability soil within the low spot, and replacing the excavated soils. Once proper slope is restored, the disturbed area will be reseeded.

Erosion, slope failures, and cracking and/or other disturbances of the cover system will be repaired by regrading or by placing appropriate materials in the affected areas and immediately reseeding to establish vegetative growth.

2.4.4 Surface-Water Drainage System

Maintenance, repair, and replacement (if necessary) of the components of the surface-water drainage system will be performed on an as-needed basis. Cleaning of the drainage structures will be performed as necessary, based on visual evidence of blockage or obstructions due to siltation or other reasons.

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2.4.5 Passive Gas Venting System

General maintenance activities that may be required periodically include inspection and replacement (if necessary) of piping, connections, or screens. Broken or clogged gas vents will be replaced.

2.5 Terminated Type III Landfills, Former CTC Parking Lot, I27.7 Area, Melting Department, Saginaw River Boundary, Former Railyard, and Parking Lot North of Buffer Basin

Cover materials of the two Terminated Type III Landfills, the Former CTC Parking Lot, the I27.7 Area, the Melting Department and the Parking Lot North of the Buffer Basin will be inspected on an annual basis. The Terminated Type III Landfills and the former CTC Parking Lot are covered with soil and an established grass cover. The I27.7 Area and the Melting Department are located within the SMI Plant, and are covered with the concrete floor. The Parking Lot North of the Buffer Basin is currently paved. A cover, either of soil or paving, will continue to be maintained for both the I27.7 and parking lot areas.

The vegetative cover and any constructed roadways in the Saginaw River Berm Area and the Former Railyard will be inspected on an annual basis to verify that the vegetative cover has been maintained and that any roadway surfaces are in good condition and are either paved or constructed with a minimum thickness of 6-inches of gravel to minimize the creation of dust. Pavement and gravel surfaces will be inspected to ensure that breakthrough to underlying soils is not occurring where traffic is present.

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3. Monitoring Activities

3.1 General

The objective of monitoring activities is to collect data to continue to understand conditions at the Site. As conditions change, monitoring activities, including sampling locations, sampling frequency, and the laboratory analyte list, may need to be revised. Proposed modifications may be presented in the annual progress reports, or in other written communication, and changes will be implemented following MDEQ approval. Table C-2 provides a summary of groundwater monitoring activities for each area.

3.2 LNAPL Assessment and Remediation Area

Groundwater and LNAPL Level Monitoring Activities

To monitor the extent of LNAPL present in the LNAPL Assessment and Remediation Area portion at the Site, GM currently collects LNAPL thickness and water-level measurements at select wells on a monthly basis. Due to the consistency and overall reduction in the extent of LNAPL observed in the Site monitoring wells, the frequency of monitoring activities will be reduced to an annual schedule. The LNAPL Assessment and Remediation Area is located south of the GM SMI Plant (Figure C-2). Measurements have been used to track seasonal fluctuations in the groundwater table, investigate groundwater flow conditions, and monitor the LNAPL thickness at various locations. The proposed wells to be initially subject to monitoring activities include: MW-147WT, MW-158WT, MW-160WT, MW-169WT, MW-172WT, MW-178WT, MW-180WT, RW-1, RW-2, RW-3, and TP-2. Due to storage of plant materials in this area of the Site and occasional movement of gravel over the well tops, the identified wells have not always been accessible for monitoring. Groundwater elevation and LNAPL thickness contour maps will be included in the annual monitoring report. Monitoring well locations within the LNAPL Assessment and Remediation Area are shown on Figure C-2.

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LNAPL removed during monitoring activities will be placed into the LNAPL storage totes in the treatment building and disposed of properly once the totes are full.

Sampling and Analysis

In addition to the activities identified above, the O&M Contractor is also responsible for the sampling and analysis of treated groundwater, collected LNAPL, and spent carbon.

System influent and treated groundwater collected after the secondary GAC unit is currently sampled and analyzed monthly for the following constituents:

- VOCs using USEPA Method 8260;
- SVOCs using USEPA Method 8270;
- PCBs using USEPA Method 608;
- inorganics using USEPA 6010 and 7000 Series; and
- flash point USEPA Method 1010.

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Treated groundwater collected after the primary GAC unit is also sampled and analyzed for the following constituents:

- PCBs using USEPA Method 608.

The collected LNAPL and spent carbon are sampled and analyzed, as needed, for disposal characterization as required by the GM National Disposal Contractor.

GM may propose to the City of Saginaw a decreased frequency of sampling and/or a change in the analytical parameter list for system influent and treated groundwater, based on the eleven years of operational data now available.

3.3 Quench Pit Area

LNAPL thickness and water-level measurements will be collected within the Quench Pit Area at select monitoring wells on an annual basis. The Quench Pit Area is located within the central portion of the GM SMI Plant (Figure C-2). Measurements will be used to track seasonal fluctuations in the groundwater table beneath the plant and monitor the LNAPL thickness at various locations. Monitoring activities are anticipated to be performed at the following monitoring wells: QPTW-01, QPTW-02, QPTW-03, QPTW-04, QPTW-05, QPTW-10, and QPTW-13. Monitoring well locations within the Quench Pit Area are shown on Figure C-2.

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3.4 Green Point Landfill

In accordance with Appendix K (Environmental Monitoring Plan [EMP]) of the document entitled *90% Engineering Design Report, Green Point Landfill* (BBL, October 1997), as modified with MDEQ approval, GM will continue to monitor groundwater in the vicinity of the Green Point Landfill (Figure C-2). The proposed monitoring plan, summarized below, includes modifications to the original monitoring plan that have been previously approved by the MDEQ, and additional changes that are based on the collection of a substantial amount of additional data during the past year. The proposed groundwater monitoring activities include the following:

- Collection of groundwater elevation measurements at monitoring wells on an annual basis in proximity to the Green Point Landfill to allow construction of a water table contour map;

- Annual sampling of 13 groundwater monitoring wells (MW-117WT, MW-117S1, MW-118WT, MW-118S1, MW-183WT, X-4A, X-4CAUGR, X-4D, X-9AR, X-9BR, X-9CAUG, X-9D, and X-10BR2; Figure C-2 and Table C-2);

- Analysis of the collected samples from all wells for site analyte list dissolved inorganic constituents, dissolved cyanide , total dissolved solids, pH, chloride , sulfate, nitrate (as N), nitrite (as N), and ammonia nitrogen. Analytical methods will be used, as specified in the Site QAPP, as amended.

- Analysis of samples collected from river perimeter monitoring wells for site analyte list total inorganic constituents (MW-183WT, X-4A, X-4CAUGR, X-4D, X-9AR, X-9BR, X-9CAUG, and X-9D) using ultra-low flow sampling methods.

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The site inorganic constituent analyte list includes the following metals: arsenic, barium, iron, manganese, mercury, selenium, and sodium. This list consists of those analytes detected on more than one date at concentrations above the generic Part 201 criteria at any Green Point Landfill monitoring location from 2004 to 2008.

GM will prepare and submit an EMP Monitoring Report to the MDEQ Environmental Response Division within 90 days of receiving the analytical data from the laboratory. The EMP report will present a review of the analytical data and recommendations for changes to the monitoring plan based on the collected data. GM may propose to the MDEQ deletion of constituents from the monitoring plan based on the existing sampling data. The EMP will continue to be implemented until the data demonstrate that continued monitoring is not necessary.

3.5 Saginaw River Boundary

As referenced in the Feasibility Study Final Report (BBL, July 2003b), PCBs have been sporadically detected along the Saginaw River boundary at low concentrations at six water table monitoring wells and at one deeper monitoring well during previous investigations. Groundwater samples collected along the river were previously analyzed for both unfiltered and dissolved (filtered) PCBs. At the seven permanent monitoring well locations along the river, PCBs were detected in unfiltered samples only, suggesting that PCBs were absorbed to particulates that are larger than the filter size of 0.45 microns.

Initially, annual groundwater monitoring activities for PCBs at select groundwater monitoring well locations is proposed. Specifically, MW-110WTR (replacing MW-110WT), MW-111WT, MW-114WT, MW-185WT, and MW-186WT will be included in the PCB sampling program, provided that the wells contain sufficient groundwater to allow sample collection. For the monitoring program, samples will be collected using "ultra" low-flow sampling methods for laboratory analysis. GM may decide to analyze both filtered and unfiltered samples for PCBs to evaluate particulate impacts on the data.

The GSI groundwater monitoring program includes the following monitoring wells: MW-107WT, MW-107S1, MW-108SWT, MW-108S2, MW-110WTR, MW-111WT, MW-114WT, MW-114S2, MW-149WT, MW-185WT, MW-186WT, and X-4AR. Monitoring well MW-108WT will be sampled for SVOCs to provide data downgradient of the Eastern Terminated Landfill, in response to the historical detection of several SVOCs at the landfill. In addition, unfiltered samples will be collected from select monitoring wells for analysis of inorganic constituents. Specifically, the following samples will be collected at MW-186WT (manganese and thallium analysis), MW-107WT (arsenic, manganese and thallium analysis), MW-108WT (manganese analysis), MW-110WTR (manganese and thallium analysis), MW-111WT (manganese and thallium analysis), MW-114WT (manganese and thallium analysis), MW-149WT (arsenic, manganese, and thallium analysis), MW-185WT (manganese and thallium analysis) and X-4AR (thallium and manganese analysis).

At the request of the MDEQ, the GSI monitoring points (listed above) will also be sampled for those general chemistry parameters that have GSI criteria. Specifically, the following general chemistry constituents will be monitored at one or more of the GSI wells: dissolved oxygen (DO), ammonia, total phosphorus, and manganese. Due to the potential influence of non-Site-related factors, not all of the GSI monitoring points will be analyzed for the full list of general chemistry parameters. Specifically, DO and manganese (due to anoxic conditions) may be impacted by the Queen (Center) Street Dump Area. Therefore, the downgradient monitoring well (MW-149WT) will not be analyzed for those constituents.
Monitoring wells in the upper sand unit: MW-107S1, MW-108S2 and MW-114S2 will be monitored for ammonia nitrogen only.

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Field data, laboratory analytical results, and conclusions and recommendations of each groundwater sampling event will be presented in groundwater monitoring reports presented to the MDEQ. Contingency actions to be taken in the event of the detection of the monitored constituents at concentrations above the GSI criteria are described in Section 4.

3.6 DRA/Former Hillock Area

Previous investigations performed in the DRA/Former Hillock Area have indicated several VOCs and one SVOC present in groundwater as a result of discharge of impacted water through a drain tile from the adjacent property to the west of the Site. The DRA/Former Hillock Area is located in the southwest portion of the Site (Figure C-2). The monitoring program will consist of the collection of one groundwater sample per year from monitoring well TWW-1, to monitor the progress of VOC attenuation. Monitoring will continue until a downward trend in VOC concentrations is established. When appropriate, a proposal to stop sampling at this location will be made to the MDEQ in the annual report.

3.7 Reporting

The results of the monitoring activities will be provided in an annual monitoring report. The annual monitoring report will include a site wide groundwater elevation contour map, annual groundwater elevation and LNAPL thickness maps of the LNAPL assessment area, data box figures for the Green Point Landfill data, and data summary tables. The report will also include recommendations for future monitoring.

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4. Contingency Plan

4.1 General

The majority of the monitoring activities described in this plan are being implemented in areas for which a significant body of historical data are available that show stability of LNAPL and/or the concentrations of dissolved constituents. For example, the LNAPL plume located south of the plant building has been monitored on a monthly basis since 1997, and is documented to be decreasing in size. In addition, the monitored areas, with the exception of the Saginaw River Boundary, are located within the interior of the property. Therefore, since there is no immediate danger of off-Site impacts in the case of a change in the concentration or distribution of the monitored constituents, data will be reported in an annual report, as described in Section 3. In the event that collected monitoring data show a significant change, contingency actions will consist of the submittal to the MDEQ of a Work Plan for proposed response actions within 60 working days of data receipt. The Work Plan will present a schedule for the completion of appropriate response actions, based on the change that is present at the time. Due to the historical variability of the groundwater data collected adjacent to the Saginaw River and the anticipated periodic detection of PCBs, a specific contingency plan is described in the following section. Proposed modifications may be presented in the annual progress reports, or in other written communication, and changes will be implemented following MDEQ approval.

4.2 Saginaw River Boundary

Due to the presence of low concentrations of PCBs, and several inorganics (arsenic, manganese, selenium, and thallium) within the fill material surrounding the well screens of the Saginaw River boundary monitoring wells, it is expected that the GSI criteria may periodically be exceeded at these wells. Sampling activities have been shown to result in the mobilization of particulates and any associated adsorbed compounds, resulting in periodic low detections of the monitored constituents. It is not believed that these periodic detections indicate the migration of the detected constituents to the River via groundwater. However, due to the proximity of the berm fill material to the River, it is necessary to use the monitoring points screened within the fill material to monitor for possible discharges to the River.

To sequentially address the detection of PCBs, arsenic, manganese, and thallium at concentrations above Groundwater/Surface Water Interface (GSI) criteria (and background), the following contingency steps will be implemented:

- Specific monitoring wells where sample analytes are detected at concentrations that exceeded the generic MDEQ GSI criteria, or the mixing zone based criteria where applicable, will be re-sampled for the relevant constituents within 30 working days (six work weeks) of data receipt. In addition, an assessment as to the potential cause of the exceedance will be provided, if known (e.g., anoxic conditions may cause elevated manganese concentrations).

- The analytical data will be provided to the MDEQ within four weeks of sample collection.

- If the original detection of the relevant constituent that was above criteria (and background) is not confirmed by the re-sampling event or is demonstrated to be related to the Queen Street Dump , no further response activities outside of the annual monitoring activities will be necessary.

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- If the detection of the relevant constituent remains at concentrations above criteria (and background) during the re-sampling event and is not related to the Queen Street Dump, response activities will be proposed to the MDEQ within three weeks of receipt of the laboratory analytical data package. Initial response actions could consist of the installation and sampling of a replacement well(s), remediation, additional testing, or other response activity appropriate to the circumstance. Alternate monitoring well or sample collection methods to minimize the introduction of particulates into the sample or to obtain more representative samples will be used. To address concentrations of monitored constituents above GSI criteria other than PCBs, for which a mixing zone has not previously been requested, a mixing zone determination may be requested.

- If the initial response action of new well installation and sampling do not resolve the issue, a work plan to address the issue will be submitted to MDEQ within 60 days of data receipt from the new wells.

Following implementation of response activities, the groundwater monitoring program will be conducted on a semi-annual basis, continuing until two consecutive sampling rounds indicate concentrations of monitored constituents at concentrations not exceeding the relevant criteria, at which time the annual monitoring program will be re-established. A proposal to remove individual analytes from the sampling program will be submitted to the MDEQ following their absence above criteria (and/or background for inorganics) during three consecutive annual sampling events.

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5. References

Blasland, Bouck & Lee, Inc. (BBL), November 1995. *LNAPL Assessment and Recovery Remedial Investigation Interim Report*, General Motors Corporation Saginaw Malleable Iron Plant and Delphi Saginaw Steering Systems Plant 2 Properties, November 1995.

Blasland, Bouck & Lee, Inc. (BBL) May 1996. General Motors Corporation Saginaw Malleable Iron Plant Property, Green Point Landfill, and Drum Remediation Area Saginaw, Michigan, *Remedial Investigation/Feasibility Study Quality Assurance Project Plan (QAPP)*, May 1996.

Blasland, Bouck & Lee, Inc. (BBL) May 1997. General Motors Corporation Saginaw Malleable Iron Plant, Saginaw, Michigan, *Former UST #7 Area Supplemental Investigation Report*, May 1997.

Blasland, Bouck & Lee, Inc. (BBL), July 1997. *Interim Response Action Work Plan, General Motors Corporation Saginaw Malleable Iron Plant, Former UST #7 Area*, Saginaw, Michigan, July 1997.

Blasland, Bouck & Lee, Inc. (BBL), October 1997a. General Motors Corporation Saginaw Malleable Iron Plant, Green Point Landfill and Drum Remediation Area, Saginaw, Michigan, *Remedial Investigation/Feasibility Study Work Plan*, October 1997; schedule tables revised January 1998.

Blasland, Bouck & Lee, Inc. (BBL), October 1997b. *90 Percent Design Report, Green Point Landfill*, October 1997.

Blasland, Bouck & Lee, Inc. (BBL), January 1998. *Final Engineering Design Report, Green Point Landfill*, Saginaw, Michigan, January 1998.

Blasland, Bouck & Lee, Inc. (BBL), April 1998. *Quench Pit Investigation Report*, GM SMI Plant, April 1998.

Blasland, Bouck & Lee, Inc. (BBL), January 2000. *Green Point Landfill Cover System Certification Report*, January 2000.

Blasland, Bouck & Lee, Inc. (BBL), October 2000. *LNAPL Recovery System Operation and Maintenance Plan*, October 2000.

Blasland, Bouck & Lee, Inc. (BBL), July 2001. General Motors Corporation, Saginaw Malleable Iron Plant Property, and REALM, Inc. Green Point Landfill and Drum Remediation Area, Saginaw, Michigan *Remedial Investigation Report*, July 5, 2001.

Blasland, Bouck & Lee, Inc. (BBL), July 2003a. General Motors Corporation Saginaw Malleable Iron Plant, Green Point Landfill and Drum Remediation Area, Saginaw, Michigan, *Human Health Evaluation Report*, July 29, 2003.

Blasland, Bouck & Lee, Inc. (BBL), July 2003b. General Motors Corporation Saginaw Malleable Iron Plant, Green Point Landfill and Drum Remediation Area, Saginaw, Michigan, *Feasibility Study Report*, July 29, 2003.

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Blasland, Bouck & Lee, Inc. (BBL), September 2005. General Motors Corporation Saginaw Malleable Iron Plant Property, and REALM, Inc. Green Point Landfill and Drum Remediation Area, Saginaw, Michigan, Remedial Action Plan, September 22, 2005.

Brouillet, Brenda J. (MDEQ, ERD), July 2000. Letter to Ed Peterson (GM), Subject: Acknowledgment of receipt of the Green Point Landfill Final Cover System Construction Certification Report, and approval of the construction activities as an interim response action, July 19, 2000.

RMT, Inc., 1979. *Conceptual Short-Term Design for On-Site Disposal of Foundry Wastes Generated at the G.M.C. Central Foundry Division, Saginaw Plant*, Saginaw, Michigan, 1979.

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TABLE C-1
SUMMARY OF SITE OPERATION, MAINTENANCE, AND MONITORING ACTIVITIES

GENERAL MOTORS CORPORATION
SAGINAW MALLEABLE IRON PLANT PROPERTY,
AND REALM GREEN POINT LANDFILL
AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

No.	Site Area	Operation, Maintenance, and Monitoring Activities	Standard Reporting
1.	LNAPL Assessment and Remediation Area	Routine O&M of LNAPL Recovery System.	Annual report
		- periodic system inspection.	
		- sampling and disposal of LNAPL and spent carbon as needed.	
		Sampling of the influent and discharge from the treatment system as per City requirements.	
		Annual monitoring of groundwater and LNAPL elevations at 12 monitoring wells.	
		Annual inspection of permanent markers.	
2.	Quench Pit Area	Routine O&M of LNAPL Recovery System.	Annual report
		- periodic system inspection.	
		- sampling and disposal of LNAPL as needed.	
		Annual monitoring of groundwater and LNAPL elevations at select monitoring wells.	
		Annual inspection of permanent markers.	
3.	Green Point Landfill	Annual inspection of cover system, surface water drainage system, gas venting system, monitoring wells, site security, and wetlands.	Annual report
		Maintenance and repair actions as needed based on the annual inspections.	
		Annual sampling of 13 monitoring wells.	
		Annual measurement of water levels at monitoring wells in the vicinity of the landfill.	
		Annual inspection of permanent markers.	
4.	Saginaw River Boundary	Annual sampling of 12 wells.	Annual report; with interim deliverables required if GSI criteria are exceeded.
		Annual inspection of vegetative cover and roadways.	
		Annual inspection of permanent markers.	
5.	Drum Remediation/Former Hillock Area	Annual inspection of permanent markers.	Annual report
		Annual sampling of one monitoring well.	
6.	Former Railyard Area	Annual inspection of vegetative cover and roadways.	Annual report
		Annual inspection of permanent markers.	
7.	Terminated Type III Landfills	Annual cover inspection.	Annual report
		Annual inspection of permanent markers.	
8.	Former CTC Parking Lot	Annual cover inspection.	Annual report
		Annual inspection of permanent markers.	
9.	I27.7 Area	Annual cover (soil or paving) inspection.	Annual report
		Annual inspection of permanent markers.	
10.	Melting Department	Annual cover (soil or paving) inspection.	Annual report
		Annual inspection of permanent markers.	
11.	Parking Lot North of Buffer Basin	Annual cover (soil or paving) inspection.	Annual report
		Annual inspection of permanent markers.	

Notes:
1. Reporting for various site areas will be combined, whenever possible.
2. The sampling activities listed are those proposed for initial implementation at the Site. Based on the data, there are provisions to either increase or decrease the scope and frequency of the proposed sampling programs.

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TABLE C-2
GROUNDWATER MONITORING SUMMARY TABLE

GENERAL MOTORS CORPORATION
SAGINAW MALLEABLE IRON PLANT PROPERTY,
AND REALM GREEN POINT LANDFILL
AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area/Monitoring Program	Monitoring Well	Monitoring Activities	Frequency
Saginaw River Boundary	MW-107WT	Ammonia, phosphorus, DO, total arsenic, total manganese, and total thallium	Annual
	MW-107S1	Ammonia nitrogen	Annual
	MW-108WT	TCL SVOCs, DO, ammonia, phosphorus, and total manganese	Annual
	MW-108S2	Ammonia nitrogen	Annual
	MW-110WTR	PCBs (total and dissolved, ammonia, phosphorus, DO, TDS, total manganese, and thallium	Annual
	MW-111WT	PCBs (total and dissolved), DO, ammonia, phosphorus, DO total thallium, and total manganese	Annual
	MW-114WT	PCBs (total and dissolved), ammonia, phosphorus, DO total thallium, and total manganese	Annual
	MW-114S2	Ammonia nitrogen	Annual
	MW-149WT	Ammonia, phosphorus, total arsenic, and total thallium	Annual
	MW-185WT	PCBs (total and dissolved), ammonia, phosphorus, DO, total manganese, and total thallium.	Annual
	MW-186WT	PCBs (total and dissolved), ammonia, phosphorus, DO total thallium, and total manganese	Annual
	X-4AR	Total thallium, total manganese and DO	Annual
LNAPL Assessment and Remediation Area	MW-147WT	Groundwater and LNAPL (if present) level only	Annual
	MW-158WT	Groundwater and LNAPL (if present) level only	Annual
	MW-160WT	Groundwater and LNAPL (if present) level only	Annual
	MW-168WT	Groundwater and LNAPL (if present) level only	Annual
	MW-169WT	Groundwater and LNAPL (if present) level only	Annual
	MW-172WT	Groundwater and LNAPL (if present) level only	Annual
	MW-178WT	Groundwater and LNAPL (if present) level only	Annual
	MW-180WT	Groundwater and LNAPL (if present) level only	Annual
	RW-1	Groundwater and LNAPL (if present) level only	Annual
	RW-2	Groundwater and LNAPL (if present) level only	Annual
	RW-3	Groundwater and LNAPL (if present) level only	Annual
	TP-2	Groundwater and LNAPL (if present) level only	Annual
Quench Pit Area	QPTW-01	Groundwater and LNAPL (if present) level only	Annual
	QPTW-02	Groundwater and LNAPL (if present) level only	Annual
	QPTW-03	Groundwater and LNAPL (if present) level only	Annual
	QPTW-04	Groundwater and LNAPL (if present) level only	Annual
	QPTW-05	Groundwater and LNAPL (if present) level only	Annual
	QPTW-10	Groundwater and LNAPL (if present) level only	Annual
	QPTW-13	Groundwater and LNAPL (if present) level only	Annual
Green Point Landfill	MW-117WT	Dissolved site analyte list metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and ammonia nitrogen.	Annual
	MW-117S1	Dissolved site analyte list metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and ammonia nitrogen.	Annual
	MW-118WT	Dissolved site analyte list metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and ammonia nitrogen.	Annual
	MW-118S1	Dissolved site analyte list metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and ammonia nitrogen.	Annual

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TABLE C-2
GROUNDWATER MONITORING SUMMARY TABLE

GENERAL MOTORS CORPORATION
SAGINAW MALLEABLE IRON PLANT PROPERTY,
AND REALM GREEN POINT LANDFILL
AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area/Monitoring Program	Monitoring Well	Monitoring Activities	Frequency
Green Point Landfill (Cont'd.)	MW-183WT	Total and dissolved site analyte list metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and ammonia nitrogen.	Annual
	X-4A	Total and dissolved site analyte list metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and ammonia nitrogen.	Annual
	X-4CAUGR	Total and dissolved site analyte list metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and ammonia nitrogen.	Annual
	X-4D	Total and dissolved site analyte list metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and ammonia nitrogen.	Annual
	X-9AR	Total and dissolved site analyte list metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and ammonia nitrogen.	Annual
	X-9BR	Total and dissolved site analyte list metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and ammonia nitrogen.	Annual
	X-9CAUG	Total and dissolved site analyte list metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and ammonia nitrogen.	Annual
	X-9D	Total and dissolved site analyte list metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and ammonia nitrogen.	Annual
	X-10BR	Dissolved site analyte list metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and ammonia nitrogen.	Annual
	MW-128WT	Water level only	Annual
	MW-128S1	Water level only	Annual
	X-1A	Water level only	Annual
	X-1B	Water level only	Annual
	X-1CR2	Water level only	Annual
	X-2A	Water level only	Annual
	X-10AR2	Water level only	Annual
	X-16A	Water level only	Annual
	X-16B	Water level only	Annual
	MW-2A	Water level only	Annual
	MW-2B	Water level only	Annual
	MW-2CAUG	Water level only	Annual
	MW-122S1	Water level only	Annual
	MW-122S2	Water level only	Annual
	MW-123WT	Water level only	Annual

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TABLE C-2
GROUNDWATER MONITORING SUMMARY TABLE

GENERAL MOTORS CORPORATION
SAGINAW MALLEABLE IRON PLANT PROPERTY,
AND REALM GREEN POINT LANDFILL
AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Site Area/Monitoring Program	Monitoring Well	Monitoring Activities	Frequency
Green Point Landfill (Cont'd.)	MW-123S1	Water level only	Annual
	MW-124WT	Water level only	Annual
	MW-124S1	Water level only	Annual
	MW-125WT	Water level only	Annual
	MW-144WT	Water level only	Annual
	TW-241	Water level only	Annual
	TW-242	Water level only	Annual
	X-15AR	Water level only	Annual
	X-15BR	Water level only	Annual
Former DRA Hillock Area	TWW-1	TCL VOCs	Annual
Site Wide Groundwater Elevation Monitoring	B-3R	Water level only	Annual
	B-3BAUG	Water level only	Annual
	B-5R	Water level only	Annual
	B-5BAUG	Water level only	Annual
	B-5CAUG	Water level only	Annual
	MW-103S1	Water level only	Annual
	MW-103S2	Water level only	Annual
	MW-103WT	Water level only	Annual
	MW-105S1	Water level only	Annual
	MW-105S2	Water level only	Annual
	MW-105WT	Water level only	Annual
	MW-108S1	Water level only	Annual
	MW-108S3	Water level only	Annual
	MW-108S4	Water level only	Annual
	MW-111S1	Water level only	Annual
	MW-111S2	Water level only	Annual
	MW-111S3	Water level only	Annual
	MW-111S4	Water level only	Annual
	MW-114SI	Water level only	Annual
	MW-114S3	Water level only	Annual
	MW-114S4	Water level only	Annual
	MW-129WT	Water level only	Annual
	MW-131S1	Water level only	Annual
	MW-131S2	Water level only	Annual
	MW-131WT	Water level only	Annual
	MW-134S1	Water level only	Annual

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TABLE C-2
GROUNDWATER MONITORING SUMMARY TABLE

GENERAL MOTORS CORPORATION
SAGINAW MALLEABLE IRON PLANT PROPERTY,
AND REALM GREEN POINT LANDFILL
AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

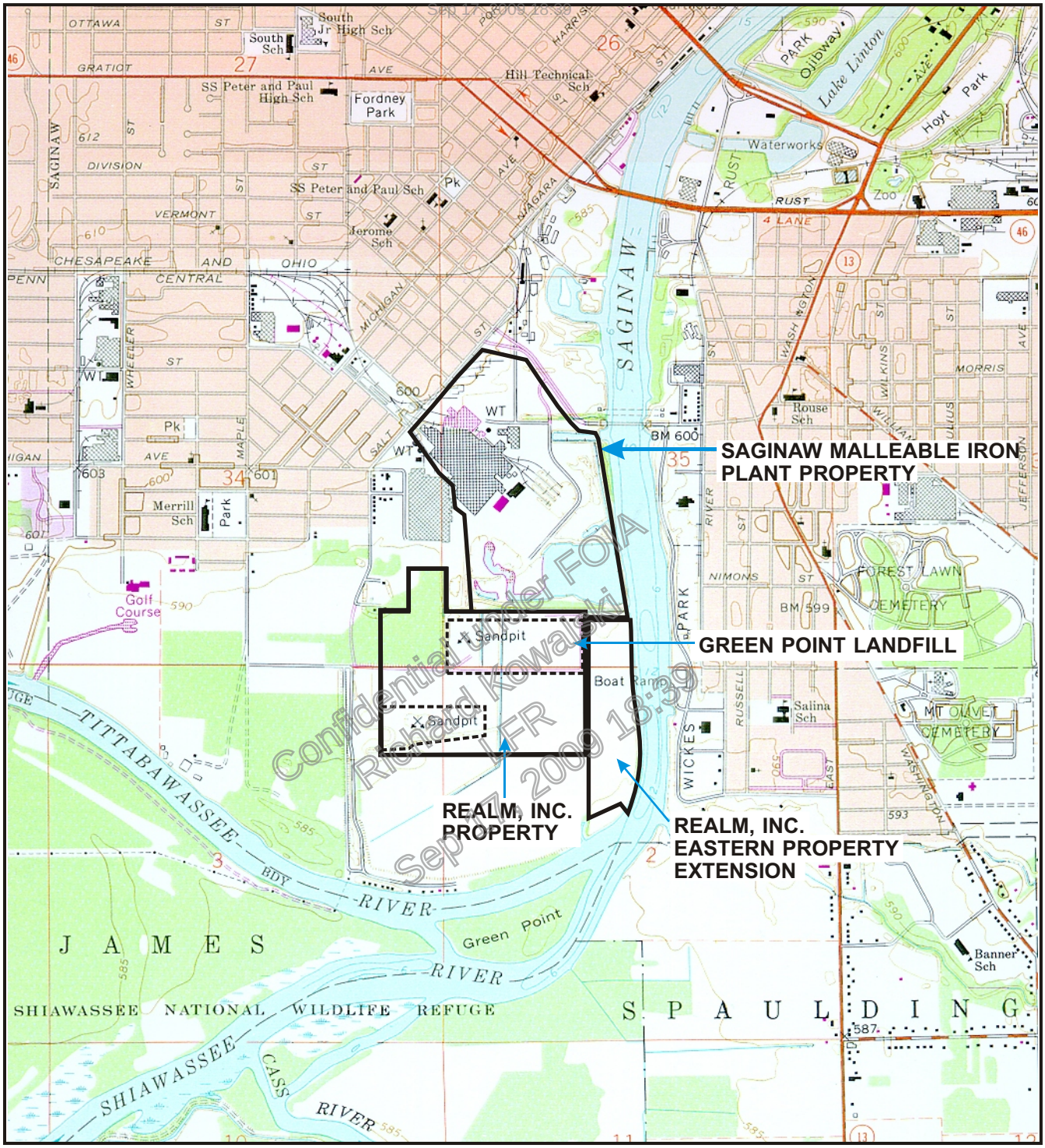
Site Area/Monitoring Program	Monitoring Well	Monitoring Activities	Frequency
Site Wide Groundwater Elevation Monitoring (Cont'd.)	MW-134S2	Water level only	Annual
	MW-134WT	Water level only	Annual
	MW-137WT	Water level only	Annual
	MW-138WT	Water level only	Annual
	MW-140S1	Water level only	Annual
	MW-140S2	Water level only	Annual
	MW-140WT	Water level only	Annual
	MW-143WT	Water level only	Annual

Notes:
Monitoring in the Quench Pit area and LNAPL recovery area located south of the plant will be restricted during demolition activities.
BTEX = Benzene, Toluene, Ethylbenzene, and Xylene (total).
DO = Dissolved Oxygen.
PCBs = Polychlorinated Biphenyls.
SVOCs = Semi-Volatile Organic Compounds.
TAL = Target Analyte List .
TCL= Target Compounds List.
TDS = Total Dissolved Solids.
VOCs = Volatile Organic Compounds.

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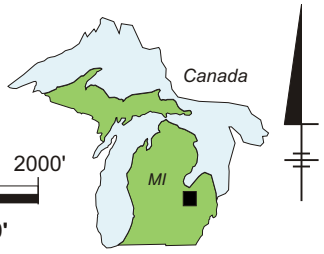


NOTES:

1. Base map source: USGS 7.5 Min. Topo. Quad., Saginaw, Mich. (1967, Photorevised 1973).
2. Locations of Green Point Landfill and Drum Remediation Area are approximate.
3. All property boundary lines are approximate.

2000' 0 2000'

Approximate Scale: 1" = 2000'



Area Location

REALM, INC.
GREEN POINT LANDFILL
SAGINAW, MICHIGAN

SITE LOCATION MAP

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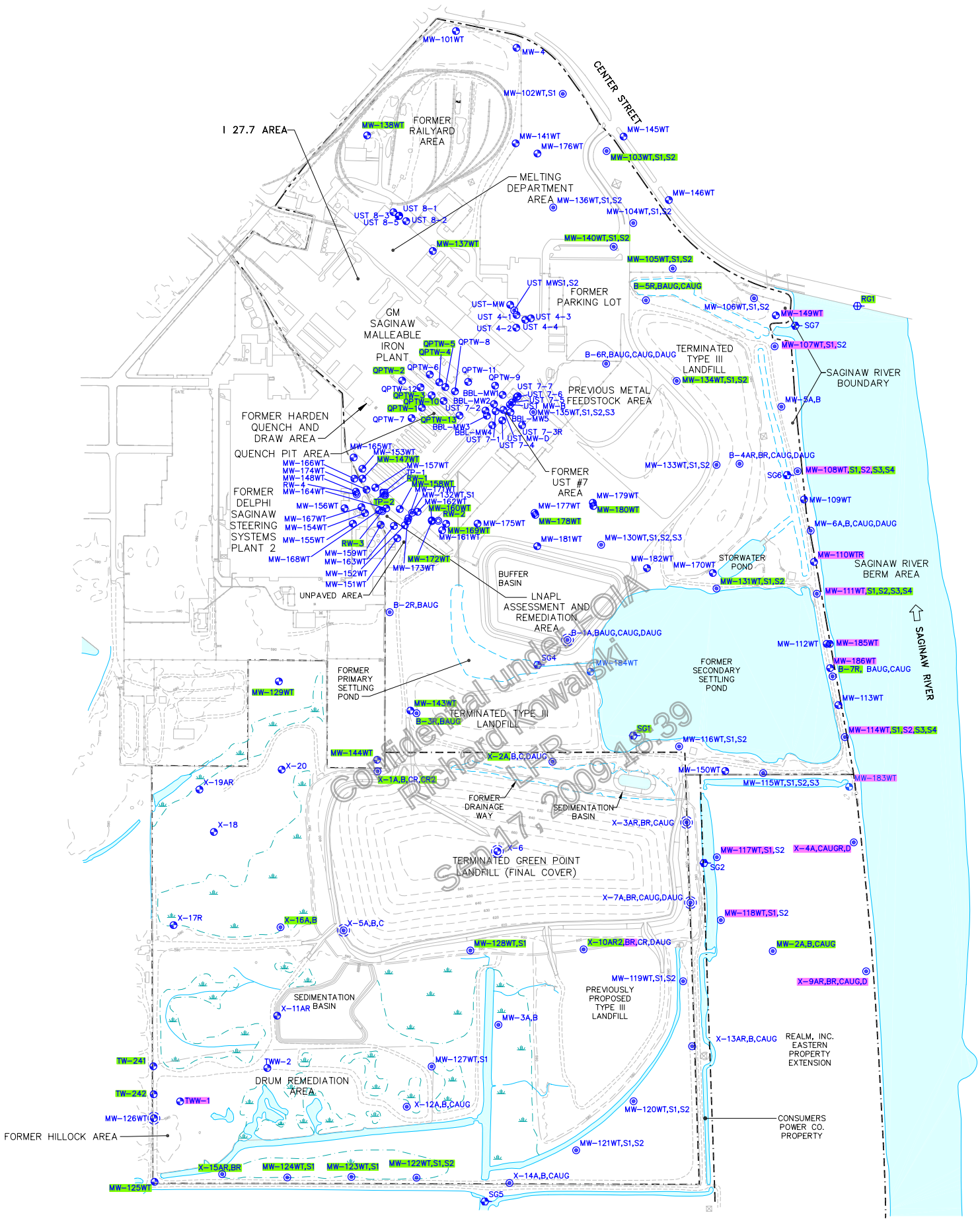
FIGURE
C-1

07/29/08 SYR-141-DJH-KLS
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CITY: SYRACUSE DIV/GROUP: 141 DB: GMS LD: GMS PM:(Reqd) LYR:ON=*:OFF=*REF
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XREFS: IMAGES: PROJECTNAME: —
27608X01



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LEGEND:

- GM SAGINAW MALLEABLE IRON PLANT PROPERTY LINE (APPROX.)
- REALM, INC. PROPERTY LINE (APPROX.)
- UNPAVED ROAD
- GROUND SURFACE ELEVATION CONTOUR (10 FT INTERVAL)
- FENCE LINE
- SWAMPY AREA
- MW-125WT — MONITORING WELL
- MW-2A,B,CAUG — MONITORING WELL CLUSTER
- SG5 — STAFF GAUGE
- TP-1 — PIEZOMETER
- RW-1 — RECOVERY WELL
- X-6 — ABANDONED MONITORING WELL
- X-5A,B,C — ABANDONED MONITORING WELL CLUSTER
- RG1 — RIVER GAUGE

RAP (7/31/08)
MONITORING PROGRAM; REVISED 12/08

- SAMPLING AND GROUNDWATER ELEVATION MEASUREMENT LOCATION
- LNAPL AND/OR GROUNDWATER ELEVATION MEASUREMENT LOCATION

0 300' 600'
GRAPHIC SCALE

NOTES:

1. THIS PHOTOGRAMMETRIC BASE MAP FOR THE GM SAGINAW MALLEABLE IRON PLANT AND DELPHI SAGINAW STEERING SYSTEMS PLANT 2 PROPERTIES WAS PREPARED BY LOCKWOOD MAPPING, INC. OF ROCHESTER, NEW YORK. AERIAL PHOTOGRAPHY WAS CONDUCTED ON 11/11/94. ORIGINAL LOCKWOOD MAP WAS AT A SCALE OF 1"=100' AND WAS INTERPRETED FOR TWO-FOOT CONTOURS.
2. BASE MAP HAS BEEN MODIFIED TO INCORPORATE BUFFER BASIN, SEDIMENTATION BASINS, WETLANDS MITIGATION AREA, AND GREEN POINT LANDFILL (GPL) FINAL COVER FROM THE FINAL ENGINEERING DESIGN REPORT PREPARED BY BBL FOR THE GPL, DATED JANUARY 1998.
3. VERTICAL DATUM REFERENCED TO NGVD OF 1929, HORIZONTAL DATUM REFERENCED TO MICHIGAN SPC-NAD 1983.
4. PROPERTY BOUNDARY FOR REALM, INC, DIGITIZED FROM SPICER GROUP DRAWING NO. A-21854-1, DATED 3/27/98.
5. BASE MAP INFORMATION SOUTH OF MAIN REALM, INC. PROPERTY LINE FROM AIR-LAND SURVEYS, INC. PHOTO DATE 11/90, MAPPING DATE 10/91.

SAGINAW MALLEABLE IRON PLANT PROPERTY,
GREEN POINT LANDFILL, AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

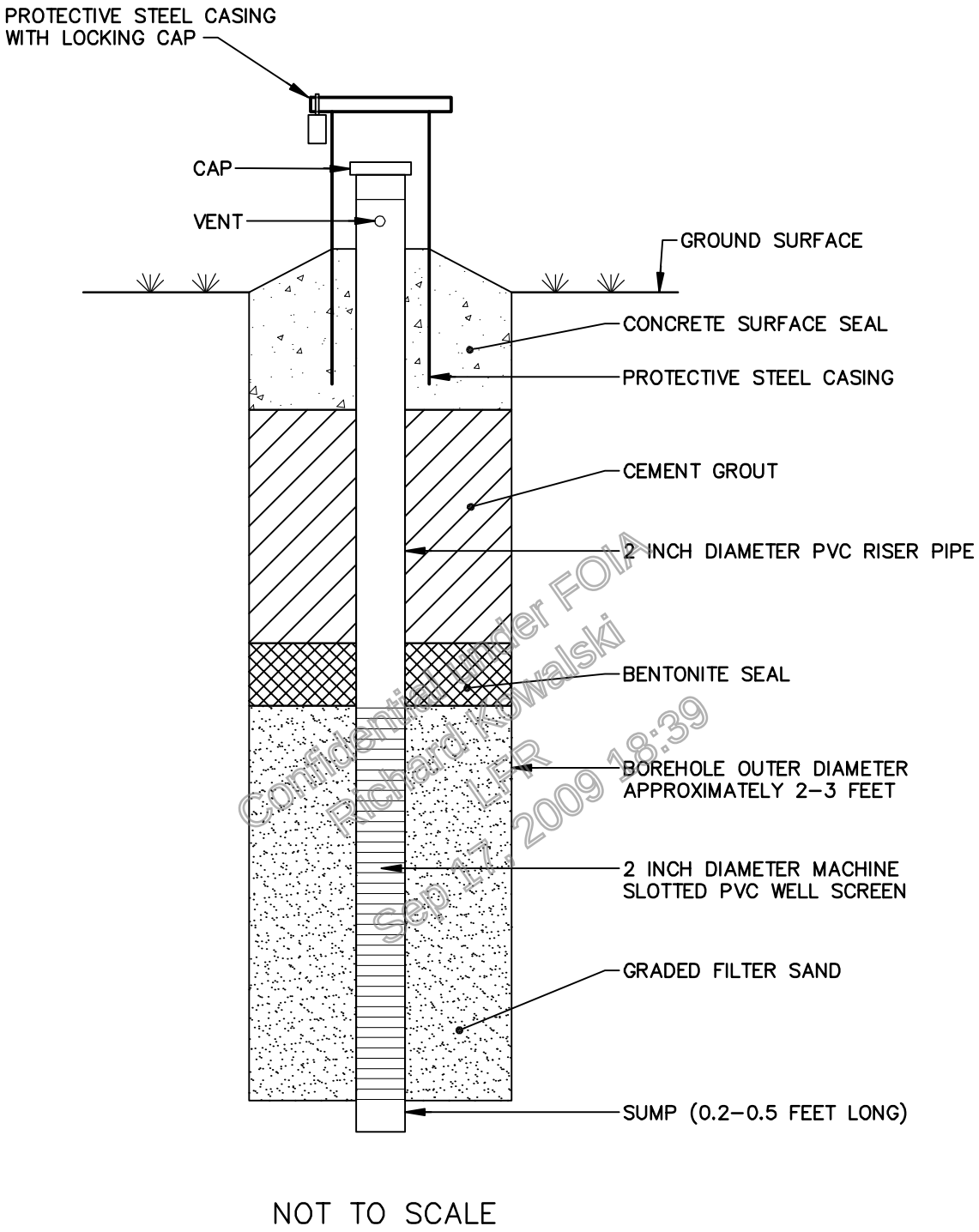
MONITORING WELL LOCATION MAP

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FIGURE
C-2

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NOT TO SCALE

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SAGINAW MALLEABLE IRON PLANT PROPERTY,
GREEN POINT LANDFILL, AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN
OM&M PLAN

TYPICAL SHALLOW OVERBURDEN MONITORING WELL CONSTRUCTION DETAIL

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FIGURE
C-3

CITY: SYRACUSE DIV/GROUP: 141/ENV DB: LJP LD:(Opt) PIC:(Opt) PM:(Reqd) TM: J.ROBERTSON LYR:(Opt)ON=*;OFF=*REF*
G:\CAD\ACT\B0027608\0000\00110\DWG\RAP027608M01.DWG LAYOUT: C-3SAVED: 7/3/2008 11:26 AM ACADVER: 17.0S (LMS TECH) PAGESETUP: ---PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 7/3/2008 11:27 AM BY: POSENAUER, LISA
XREFS: IMAGES: PROJECTNAME: ---

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Appendix D

Draft Restrictive Covenant Documentation

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Appendix D

Draft Restrictive Covenant Documentation

General Motors Corporation Saginaw Malleable Iron Plant Property, and REALM, Inc. Green Point Landfill and Drum Remediation Area Saginaw, Michigan

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July 30, 2008
(Modified on December 31, 2008 and May 29, 2009

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Infrastructure, environment, facilities

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Appendix D

Draft Restrictive Covenant Documentation

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DRAFT 12-31-08

DECLARATION OF RESTRICTIVE COVENANT
SAGINAW MALLEABLE IRON PLANT PROPERTY

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DRAFTED BY AND WHEN RECORDED
RETURN TO:

Todd C. Schebor, Esq.
Dykema Gossett PLLC
400 Renaissance Center
Detroit, Michigan 48243

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DECLARATION OF RESTRICTIVE COVENANT

MDEQ Reference No.: RC-RRD-[Yr]-[number]

This Declaration of Restrictive Covenant ("Restrictive Covenant") has been recorded with the Saginaw County Register of Deeds for the purpose of protecting public health, safety, welfare, and the environment by prohibiting or restricting activities that could result in unacceptable exposure to environmental contamination present at certain property located in the City of Saginaw, County of Saginaw and legally described in Exhibit 1 attached hereto (the "Property"). The Property is associated with General Motors Corporation-Saginaw Malleable Iron Plant, Site I.D. 73000014, for which a remedial action plan is being conducted by General Motors Corporation, a Delaware corporation ("GM"). The remedial action that is being implemented to address environmental contamination is fully described in the Remedial Action Plan, Saginaw Malleable Iron Plant Property and REALM, Inc., Green Point Landfill and Drum Remediation Area, dated July 2008 ("RAP"), and submitted by GM, Remediation And Liability Management, Inc. ("REALM, Inc.") and Waste Management, Inc. to the Michigan Department of Environmental Quality ("MDEQ"). The MDEQ approved the RAP on _____, __ 2009, pursuant to Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended ("NREPA"), MCL 324.20101 et seq.

The RAP requires the recording of this Restrictive Covenant with the Saginaw County Register of Deeds to: 1) restrict unacceptable exposures to hazardous substances located on the Property; 2) assure that the use of the Property is consistent with the exposure assumptions utilized in the development of cleanup criteria pursuant to Section 20120a(1)(g) and (1)(i) of the NREPA and the exposure control measures relied upon in the RAP; and 3) to prevent damage or disturbance of any element of the response activity constructed on the Property. The restrictions contained in this Restrictive Covenant are based upon information available to the MDEQ at the time the RAP was approved by the MDEQ. Failure of the response activities to achieve and maintain the criteria, exposure controls, and requirements specified in the RAP; future changes in the environmental condition of the Property or changes in the cleanup criteria developed under Section 20120a(1)(g) and (1)(i) of the NREPA; the discovery of environmental conditions at the Property that were not accounted for in the RAP; or use of the Property in a manner inconsistent with the restrictions described herein, may result in this Restrictive Covenant not being protective of public health, safety, and welfare, and the environment.

Exhibit 2 provides a survey and location figure of the Property that is subject to the land use or resource use restrictions which apply to the entire Property and are described in Paragraphs 1, 2a, and 2b below, and Exhibits 3-13 provide the legal descriptions and surveys that distinguishes those portions of the Property that are subject to other specific land use or resource use restrictions as specified herein.

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Exhibit Number	Area	Summary of Primary Restrictions	Location of Complete Description of Restrictions
2	SMI Plant Property	• Limiting the Former Railyard Area and the LNAPL Assessment and Remediation Area to Limited Industrial and Limited Commercial II uses. Limiting all other areas of the Property to Limited Industrial and Limited Commercial II, III, and IV uses. • Prohibiting installation of wells for potable water supply.	Paragraph 1, 2a, and 2b
3	LNAPL Assessment and Remediation Area	• Worker duration restrictions apply for maintenance and intrusive/construction workers. • Restrictions on intrusive activities	Paragraph 2c
4	Quench Pit	• Worker duration restrictions apply for maintenance and intrusive/construction workers. • Restrictions on intrusive activities	Paragraph 2c
5	Former UST -7	• Restrictions on building construction	Paragraph 2d
6	Former CTC Parking Lot	• Maintenance of existing cover material required • Worker duration restrictions apply for intrusive/construction workers • Restrictions on intrusive activities	Paragraph 2e
7	Parking Lot North of Buffer Basin	• Maintenance of existing cover material required • Worker duration restrictions apply for intrusive/construction workers • Restrictions on intrusive activities	Paragraph 2e
8	Type III Landfills	• Maintenance of existing cover material required • Restrictions on intrusive activities	Paragraph 2f
9	I27.7	• Maintenance of existing cover material required • Restrictions on intrusive activities	Paragraph 2f
10	Melting Department	• Maintenance of existing cover material required • Restrictions on intrusive activities	Paragraph 2f
11	Former Railyard	• Maintenance of existing cover material required • Worker duration restrictions apply for maintenance and intrusive/construction workers • Restrictions on intrusive activities • Restrictions on installation of roadways	Paragraph 2g

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Exhibit Number	Area	Summary of Primary Restrictions	Location of Complete Description of Restrictions
12	Previous Metal Feedstock Area	• Maintenance of existing cover material required • Worker duration restrictions apply for maintenance and intrusive/construction workers • Restrictions on intrusive activities • Restrictions on installation of roadways	Paragraph 2g
13	Saginaw River Boundary	• Maintenance of existing cover material required • Worker duration restrictions apply for maintenance and intrusive/construction workers • Restrictions on intrusive activities • Restrictions on installation of roadways	Paragraph 2h

Summary of Response Activities

Soil excavation activities have occurred in the Melting Department Area, the Former Railyard Area, the Saginaw River Berm Area, and the Unpaved Area located south of the GM Saginaw Malleable Iron Plant. Erosion control measures to mitigate berm erosion by surface-water runoff will be implemented in the Saginaw River Berm Area. The Saginaw River Berm Area will be graded to fill existing rills and provide a smooth surface. A vegetative cover will then be established.

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Definitions

"Intrusive Activities" means any activities that involve physical intrusion into the subsurface.

"MDEQ" means the Michigan Department of Environmental Quality, its successor entities, and those persons or entities acting on its behalf.

"Owner" means at any given time the then current fee title owner of the Property or any portion of the Property. GM is the current Owner.

All other terms used in this document which are defined in Part 3, Definitions, of the NREPA; Part 201 of the NREPA; or the Part 201 Administrative Rules ("Part 201 Rules"), 1990 AACS R 299.5101 et seq., shall have the same meaning in this document as in Parts 3 and 201 of the NREPA and the Part 201 Rules, as of the date of filing of this Restrictive Covenant.

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NOW THEREFORE,

Declaration of Land Use and Resource Use Restrictions

Pursuant to the RAP and Consent Judgment #98-22686-CE-2 entered by the Circuit Court of Saginaw County, GM as current Owner of the Property, hereby declares and covenants that the Property shall be subject to the following restrictions and conditions:

1. The Owner shall prohibit all uses of the Former Railyard Area and the LNAPL Assessment and Remediation Area that are not compatible with the limited industrial and limited commercial II categories under Section 20120a(1)(g) and (1)(i) of the NREPA and generally described in the Description of Allowable Uses, attached hereto as Exhibit 14. The Owner shall prohibit all uses of the rest of the Property (excluding the Former Railyard Area and the LNAPL Assessment and Remediation Area) that are not compatible with the limited industrial and limited commercial II, III, and IV categories under Section 20120a(1)(g) and (1)(i) of the NREPA and generally described in the Description of Allowable Uses, attached hereto as Exhibit 14. The Owner may re-evaluate the exceedances and make appropriate changes or additional remediation for the allowable land use, provided that the changes and new land use are reviewed and approved by GM and the MDEQ. Cleanup criteria for land use-based response activities are located in the Government Documents Section of the State of Michigan Library. The following uses allowed under the City of Saginaw M-2 General Industrial zoning code designations are prohibited on the Property:

Hotels and Motels

Penal and correctional institutions and detention facilities subject to the standards in §§ 153.490 *et seq* of the Saginaw Code of Ordinances.

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2. The Owner shall prohibit activities on the Property that may result in exposures above levels established in the RAP. These prohibited activities include:

a. No activities at the Property are allowed that may permanently interfere with the Remedial Action, operation or maintenance, monitoring, or other measures necessary to assure the effectiveness and integrity of the Remedial Action except as approved by the MDEQ and GM; provided, however, that the foregoing shall not be construed to apply to or restrict temporary interruptions such as maintenance, repair and replacement of existing structures and facilities that are consistent with any limitations relating to worker protection contained in this Restrictive Covenant, which is hereby specifically permitted.

b. In order to restrict the use and consumption of groundwater, wells shall not be installed on the Property for extracting groundwater for potable or domestic uses. This provision does not prohibit installation of wells for: environmental study, monitoring, or remediation; dewatering of excavations; non-contact cooling water; ground water heat pumps; or for emergency purposes, provided that the installation and operation of such wells is in compliance with applicable federal,

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state and local laws and regulations and the fluids are managed in accordance with the requirements of Section 20107a of NREPA and other applicable local, state and federal laws and regulations.

c. To protect against direct contact with light non-aqueous phase liquid ("LNAPL") and/or hazardous substances present in subsurface soil in the **LNAPL Assessment and Remediation Area (Exhibit 3) and Quench Pit Area (Exhibit 4)**, Intrusive Activities must be completed in accordance with the health and safety requirements set forth under MiOSHA, the OSHA, and all other applicable local, state, and federal laws and regulations. The MDEQ shall be notified whenever these activities are undertaken and records shall be kept of activities that can be reviewed by the MDEQ upon request for five years. Prior to the implementation of any Intrusive Activities, an evaluation of soil and soil vapors must be completed. Proposed Intrusive Activities can be undertaken if the evaluation demonstrates that unacceptable exposures above the then applicable soil volatilization to indoor air inhalation, volatilization to ambient air inhalation, and direct contact criteria would not result. Activities in these areas of the Property are restricted so that a maintenance worker spends no more than 160 days, per any such worker per year, and access by an intrusive/construction worker spends no more than 30 days, per any such worker per year, in the area. All excavated soils and extracted fluids shall be managed in accordance with the requirements of section 20107a of NREPA and all other applicable local, state, and federal laws and regulations.

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d. In order to protect against inhalation of hazardous substances in indoor air that migrate from contaminated soil in the **Former UST #7 Area**, no new enclosed structure suitable for short or long term human habitation shall be constructed on the Property in the area delineated in Exhibit 5 as the former UST #7 Area without the use of an adequate vapor barrier under such new enclosed structure, unless it can be demonstrated to the satisfaction of the MDEQ that the soil or soil vapor in these areas meets applicable MDEQ soil volatilization to indoor air criteria (or equivalent) established at the time of the new construction. All excavated soils and extracted fluids shall be managed in accordance with the requirements of section 20107a of NREPA and all other applicable local, state, and federal laws and regulations.

e. In order to protect against the inhalation of impacted soil particulates containing hazardous substances present in soil, the soil and grass cover must be maintained in the **Former Casting Technology Center (CTC) Parking Lot East of the Plant Area (Exhibit 6),** and a cover must be maintained over the **Parking Lot North of the Buffer Basin Area (Exhibit 7).** In the event the cover is disrupted or temporarily removed by Owner, it shall be restored by Owner at Owner's expense. Activities in the Former CTC Parking Lot East of the Plant Area (Exhibit 6) and Parking Lot North of the Buffer Basin Area (Exhibit 7) are restricted so that access by an intrusive/construction worker spends no more than 30 days, per any such worker per year, in the area. To implement

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activities in these areas that are inconsistent with current facility operations, activities must be completed in accordance with the health and safety requirements set forth under MiOSHA, the OSHA, and all other applicable local, state, and federal laws and regulations. All excavated soils and extracted fluids shall be managed in accordance with the requirements of section 20107a of NREPA and all other applicable local, state, and federal laws and regulations.

f. In order to protect against direct contact with hazardous substances potentially present in soil or fill material in the **Type III Landfills Area (Exhibit 8), I27.7 Area (Exhibit 9) and Melting Department Area (Exhibit 10),** cover materials must be maintained. In the event the covers are disrupted or temporarily removed by Owner, they shall be restored by Owner at Owner's expense. Intrusive Activities must be completed in accordance with the health and safety requirements set forth under MiOSHA, the OSHA, and all other applicable local, state, and federal laws and regulations. The MDEQ shall be notified whenever these activities are undertaken and records shall be kept of activities that can be reviewed by the MDEQ upon request for five years. All excavated soils and extracted fluids shall be managed in accordance with the requirements of section 20107a of NREPA and all other applicable local, state, and federal laws and regulations.

g. In order to protect against the inhalation of nonvolatile hazardous substances present in surface soil of the **Former Railyard Area (Exhibit 11) and the Previous Metal Feedstock Area (Exhibit 12)**, the vegetative cover must be maintained (minimum of 50% coverage of soil surface) and roadways may not be installed unless properly constructed (with at least 6-inches of gravel, or pavement). In the event the vegetative cover is disrupted or temporarily removed by Owner, it shall be restored by Owner at Owner's expense. Activities in the Former Railyard Area (Exhibit 11) and the Previous Metal Feedstock Area (Exhibit 12) are restricted so that a maintenance worker spends no more than 160 days, per any such worker per year, and an intrusive/construction worker spends no more than 30 days, per any such worker per year, in the area. To implement activities in these areas that are inconsistent with the above restrictions, health and safety requirements set forth under MiOSHA, the OSHA, and all other applicable local, state, and federal laws and regulations must be followed. All excavated soils and extracted fluids shall be managed in accordance with the requirements of section 20107a of NREPA and all other applicable local, state, and federal laws and regulations.

h. In order to protect against the inhalation of impacted soil particulates containing hazardous substances present in surface and subsurface soil located in the **Saginaw River Boundary area (Exhibit 13)**, the vegetative cover must be maintained (minimum of 50% coverage of soil surface) and new roadways may not be installed unless properly constructed (with at least 6-inches of gravel, or pavement). In the event the vegetative cover is disrupted or temporarily removed by Owner, it shall be restored by Owner at Owner's expense. Activities in the

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Saginaw River Boundary Area (Exhibit 13) are restricted so that a maintenance worker spends no more than 160 days, per any such worker per year, and an intrusive/construction worker spends no more than 30 days, per any such worker per year, in the area. To implement activities in this area that are inconsistent with the above requirements, health and safety requirements set forth under MiOSHA, the OSHA, and all other applicable local, state, and federal laws and regulations must be followed. Excavated impacted subsurface soils shall not be brought to and used as surface soil unless they meet the applicable criteria for that area of the Property.

3. The Owner shall prohibit activities on the Property that may interfere with any element of the RAP, including the performance of operation and maintenance activities, monitoring, or other measures necessary to ensure the effectiveness and integrity of the RAP in the RAP; provided, however, that the foregoing shall not be construed to apply to or restrict maintenance, repair and replacement of existing structures and facilities, which is hereby specifically permitted or those activities specifically approved by the MDEQ and GM. Any disruption to the effectiveness and integrity of the RAP shall be temporary and in accordance with any health and safety requirements for that particular area. All excavated soils and extracted fluids shall be managed in accordance with the requirements of section 20107a of NREPA and all other applicable local, state, and federal laws and regulations

4. Permanent Markers. The Owner shall not remove, cover, obscure, or otherwise alter or interfere with the permanent markers placed at the locations noted in Exhibit 2. The Owner shall keep vegetation and other materials clear of the permanent markers to assure that the markers are readily visible.

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5. Contaminated Soil Management. The Owner shall manage all soils, media and/or debris located on the Property in accordance with the applicable requirements of Section 20120c of the NREPA; Part 111, Hazardous Waste Management, of the NREPA; Subtitle C of the Resource Conservation and Recovery Act, 42 U.S.C. Section 6901 et seq.; the administrative rules promulgated thereunder; and all other relevant state and federal laws.

6. Access. The Owner shall grant to the MDEQ, GM, and REALM, Inc., and their designated representatives, the right to enter the Property at reasonable times for the purpose of determining and monitoring compliance with the RAP, including the right to take samples, inspect the operation of the response activities and, inspect any records relating thereto, and to perform any actions necessary to maintain compliance with Part 201 and the RAP.

7. Notice. The Owner shall provide notice to the MDEQ, and to GM if at the time GM is no longer the Owner, of the Owner's intent to transfer any interest in the Property at least fourteen (14) business days prior to consummating the conveyance. This notice requirement does not obviate the requirement to comply with any other applicable notice requirement. A conveyance of title, easement, or other interest in the Property shall not be consummated by the Owner without adequate and complete provision for compliance with the terms and conditions of this Restrictive Covenant and the applicable provisions of Section 20116 of the NREPA. The notice required to be made to the MDEQ under this Paragraph shall be made to: Director,

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MDEQ, P.O. Box 30473, Lansing, Michigan 48909-7973; and shall include a statement that the notice is being made pursuant to the requirements of this Restrictive Covenant, MDEQ Reference Number RC-RRD-[YR]-[number]. The notice required to be made to GM under this Paragraph shall be made to: Cheryl Hiatt, WFG – Engineering Center – West, 30200 Mound Road, Mail code: 480-111-W60, Warren, MI 48090. A copy of this Restrictive Covenant shall be provided to all future owners, heirs, successors, lessees, easement holders, assigns, and transferees by the person transferring the interest.

8. Term and Enforcement of Restrictive Covenant. This Restrictive Covenant shall run with the Property and shall be binding on the Owner; future Owners; and all current and future successors, lessees, easement holders, their assigns, and their authorized agents, employees, or persons acting under their direction and control. This Restrictive Covenant may only be modified or rescinded with the written approval of the MDEQ and GM.

The State of Michigan, through the MDEQ, and GM may enforce the restrictions set forth in this Restrictive Covenant by legal action in a court of competent jurisdiction.

9. Severability. If any provision of this Restrictive Covenant is held to be invalid by any court of competent jurisdiction, the invalidity of such provision shall not affect the validity of any other provisions hereof, and all such other provisions shall continue unimpaired and in full force and effect.

10. Authority to Execute Restrictive Covenant. The undersigned person executing this Restrictive Covenant is the Owner, or has the express written permission of the Owner and all other holders of a legal interest whose interest is materially affected by this Restrictive Covenant, and represents and certifies that he or she is duly authorized and has been empowered to execute and deliver this Restrictive Covenant.

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IN WITNESS WHEREOF, General Motors Corporation has caused this Restrictive Covenant to be executed on this_____day of_____, 200__.

GENERAL MOTORS CORPORATION, Owner

By: _____
Signature

Name: _____
Print or Type Name

Its: _____
Title

STATE OF Michigan
COUNTY OF Wayne

The foregoing instrument was acknowledged before me this [date] by [name of officer or agent, title of officer or agent] of General Motors Corporation, a Delaware corporation.

Notary Public _____

[Print or type name]
[Commissioned in] County, [State]

My Commission Expires: _____

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EXHIBIT 1

LEGAL DESCRIPTION OF PROPERTY

PARCEL OF LAND LOCATED IN THE CITY OF SAGINAW, SAGINAW COUNTY MORE PARTICULARLY DESCRIBED AS FOLLOWS:

DESCRIPTION OF A 150.97 ACRE PARCEL OF LAND
(KNOWN AS SAGINAW MALLEABLE IRON PLANT PROPERTY)

Commencing at a found monument at the center-line intersections of Salt Road (66.00 feet wide) and Sylvan Road (60.00 feet wide) being part of Sections 34 & 35, T12N, R4E, City of Saginaw, Saginaw County, Michigan; thence N41°13'20"E 53.66 feet along the center-line of said Salt Road; thence S48°46'40"E 33.00 feet perpendicular to said center-line of said Salt Road for a **PLACE OF BEGINNING**; thence N41°13'20"E 155.86 feet along the Southeasterly Right-of-Way line of said Salt Road; thence S56°24'15"E 100.97 feet; thence S79°30'05"E 162.10 feet; thence N13°24'11"E 160.56 feet; thence along the Southwesterly Right-of-Way line of vacated relocated Florence Street (66.00 feet wide) as recorded thereof in Liber 1269, Page 348 of Saginaw County Records, N76°42'45"W 186.19 feet to the said Southeasterly Right-of-Way line of said Salt Road, said point being S44°49'19"E 33.08 feet from a found monument at the center-line of said Salt Road; thence N41°13'20"E 2.12 feet along the Southeasterly Line of said Salt Road; thence N41°30'33"E 1174.43 feet continuing along said Southeasterly Right-of-Way line of said Salt Road to the Southwesterly Right-of-Way Line of West Center Street (130.00 feet wide) for the following seven (7) courses: [1]S77°59'54"E 348.21 feet; [2]S53°41'09"E 303.68 feet; [3]S35°19'18"E 1142.28 feet; [4]S89°15'47"E 87.93 feet; [5]S46°59'44"E 117.45 feet; [6]S66°53'15"E 55.70 feet; [7]S75°13'36"E 193.96 feet to an intermediate traverse point "A"; said point "A" being N75°13'36"W 81.73 feet from the United States Harbor Line as recorded thereof in Liber 2194 Page 1169 of Saginaw County Records; thence S75°13'36"E 25 feet, plus or minus, to the Westerly Edge of Water of the Saginaw River; thence the following three (3) courses along an intermediate traverse line from aforementioned Intermediate Traverse point "A":[1] S03°21'51"E 548.91 feet, [2]S07°27'01"E 907.34 feet,[3] S10°55'18"E 798.66 feet to an Intermediate Traverse Point "B"; said point "B" being N89°42'41"W 121.04 feet from said United States Harbor Line; thence N89°40'46"W 720.87 feet to the East line of Consumers Power Company Right-of-Way (72.00 feet wide) as recorded thereof in Liber 1106 Pages, 426 & 427; thence N89°34'47"W 72.06 feet along the North line of said Right-of-Way; thence N01°57'47"W 100.28; thence N89°36'59"W 1421.88 feet; thence N00°07'58"E 1033.08 feet; thence N25°14'05"W 365.55 feet; thence N24°37'18"W 89.80 feet; thence N00°17'27"W 80.90 feet; thence N89°46'34"W 8.85 feet; thence N00°13'22"E 159.80 feet; thence N48°10'04"W 158.71 feet; thence N44°27'28"W 229.01 feet; thence N26°08'40"W 69.66 feet; thence N28°53'40"W 207.15 feet; thence N38°36'14"W 183.21 feet to the PLACE OF BEGINNING. Containing 150.97 acres of land, more or less, subject to easements, conditions, restrictions and exceptions of record, if any.

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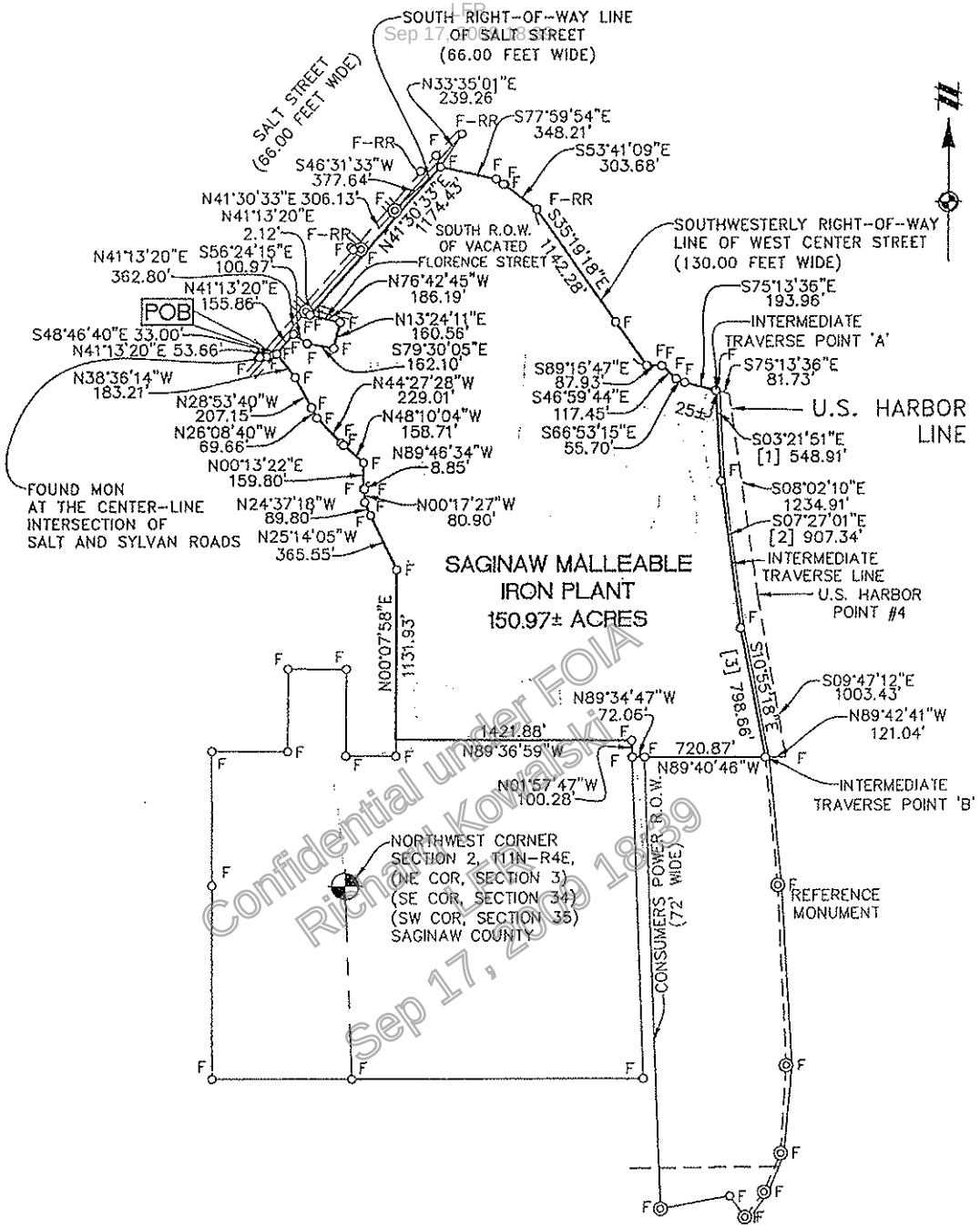
EXHIBIT 2

SAGINAW MALLEABLE IRON PLANT PROPERTY SURVEY

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LEGEND

O_F	FOUND IRON PIPE
O_S	SET IRON PIPE
$\circledcirc_F$	FOUND CONCRETE MONUMENT
POB	PLACE OF BEGINNING
R/W	RIGHT-OF-WAY

CLIENT: GENERAL MOTORS

SKETCH AND DESCRIPTION OF A 150.97 ACRE PARCEL OF LAND-SAGINAW MALLEABLE IRON PLANT LOCATED IN

SECTIONS 2, 3, 34 & 35, T11&12N, R4E
CITY OF SAGINAW
SAGINAW COUNTY, MICHIGAN

SCALE: 1 INCH =800 FEET (0 400 800)

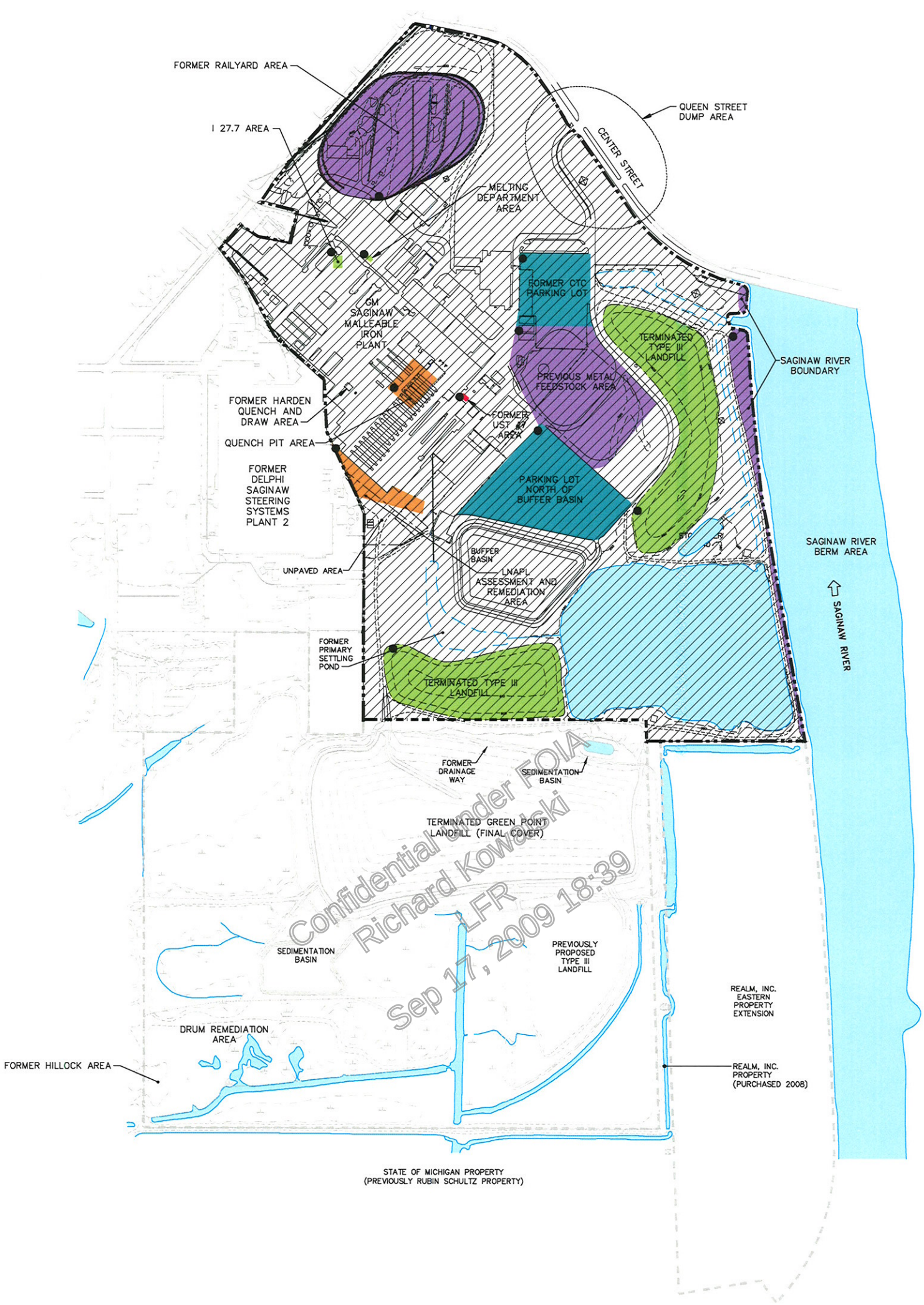
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DR. BAL	CH. DJG/DLN
BOOK	PG.
SHEET 1 OF 2	DATE: 5/13/09
FILE CODE: SU-0-16	

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NOTES:

1. THIS PHOTOGRAMMETRIC BASE MAP FOR THE GM SAGINAW MALLEABLE IRON PLANT AND DELPHI SAGINAW STEERING SYSTEMS PLANT 2 PROPERTIES WAS PREPARED BY LOCKWOOD MAPPING, INC. OF ROCHESTER, NEW YORK. AERIAL PHOTOGRAPHY WAS CONDUCTED ON 11/11/94. ORIGINAL LOCKWOOD MAP WAS AT A SCALE OF 1"=100' AND WAS INTERPRETED FOR TWO-FOOT CONTOURS.
2. BASE MAP HAS BEEN MODIFIED TO INCORPORATE BUFFER BASIN, SEDIMENTATION BASINS, WETLANDS MITIGATION AREA, AND GREEN POINT LANDFILL (GPL) FINAL COVER FROM THE FINAL ENGINEERING DESIGN REPORT PREPARED BY BBL FOR THE GPL, DATED JANUARY 1998.
3. VERTICAL DATUM REFERENCED TO NGVD OF 1929, HORIZONTAL DATUM REFERENCED TO MICHIGAN SPC-NAD 1983.
4. PROPERTY BOUNDARY FOR REALM, INC, DIGITIZED FROM SPICER GROUP DRAWING NO. A-21854-1, DATED 3/27/98.
5. BASE MAP INFORMATION SOUTH OF MAIN REALM, INC. PROPERTY LINE FROM AIR-LAND SURVEYS, INC. PHOTO DATE 11/90, MAPPING DATE 10/91.

LEGEND:

GM SAGINAW MALLEABLE IRON PLANT PROPERTY LINE (APPROX.)

REALM, INC. PROPERTY LINE (APPROX.)

UNPAVED ROAD

GROUND SURFACE ELEVATION CONTOUR (10 FT INTERVAL)

FENCE LINE

SWAMPY AREA

AREA SUBJECT TO RESTRICTIVE COVENANT THAT LIMITS PROPERTY USE TO INDUSTRIAL AND COMMERCIAL II AND PROHIBITS THE INSTALLATION OF POTABLE WATER SUPPLY WELLS.

AREA SUBJECT TO RESTRICTIVE COVENANT THAT PLACES RESTRICTIONS ON BUILDING CONSTRUCTION.

AREA SUBJECT TO RESTRICTIVE COVENANT THAT PLACES RESTRICTIONS ON INTRUSIVE ACTIVITIES AND PROVIDES FOR THE MAINTENANCE OF CAP OR COVER MATERIALS.

AREA SUBJECT TO RESTRICTIVE COVENANT THAT PLACES RESTRICTIONS ON INTRUSIVE ACTIVITIES. WORKER DURATION RESTRICTIONS APPLY AS DETAILED IN THE RAP AND PROPOSED RESTRICTIVE CONVENANT.

AREA SUBJECT TO RESTRICTIVE COVENANT THAT RESTRICTS INTRUSIVE ACTIVITIES AND PROVIDES FOR THE MAINTENANCE OF EXISTING COVER MATERIALS. WORKER DURATION RESTRICTIONS APPLY AS DETAILED IN THE RAP AND PROPOSED RESTRICTIVE CONVENANT.

AREA SUBJECT TO RESTRICTIVE COVENANT THAT RESTRICTS INTRUSIVE ACTIVITIES, PROHIBITS THE INSTALLATION OF DIRT ROADWAYS AND REQUIRES MAINTENANCE OF 50% OR GREATER VEGETATIVE COVER. WORKER DURATION RESTRICTIONS APPLY AS DETAILED IN THE RAP AND PROPOSED RESTRICTIVE CONVENANT.

PERMANENT MARKER LOCATION

0 300' 600'
GRAPHIC SCALE

SAGINAW MALLEABLE IRON PLANT PROPERTY,
GREEN POINT LANDFILL, AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN
REMEDIAL ACTION PLAN

AREAS SUBJECT TO PROPOSED RESTRICTIVE COVENANTS SAGINAW MALLEABLE IRON PLANT PROPERTY

ARCADIS

FIGURE
1

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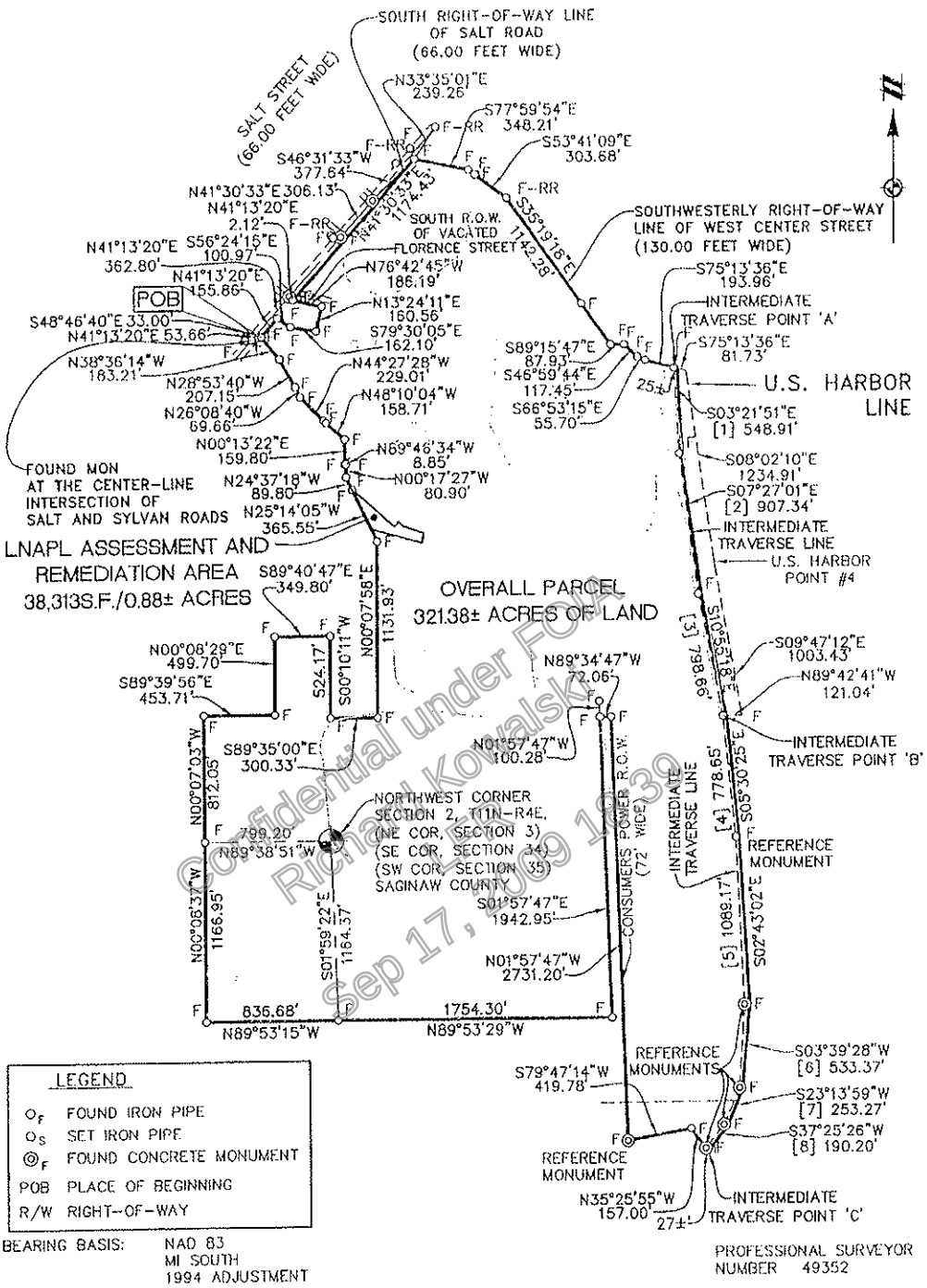
EXHIBIT 3

LNAPL ASSESMENT AND REMEDIATION AREA SURVEY AND LEGAL DESCRIPTION

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LEGEND

O_F	FOUND IRON PIPE
O_S	SET IRON PIPE
$\odot_F$	FOUND CONCRETE MONUMENT
POB	PLACE OF BEGINNING
R/W	RIGHT-OF-WAY

BEARING BASIS: NAD 83
MI SOUTH
1994 ADJUSTMENT

PROFESSIONAL SURVEYOR
NUMBER 49352

I HEREBY CERTIFY THAT I HAVE SURVEYED AND MAPPED THE LAND ABOVE PLATTED AND/OR DESCRIBED ON JULY 8 2008, AND THAT THE RATIO OF CLOSURE ON THE UNADJUSTED FIELD OBSERVATIONS OF SUCH SURVEY WAS 1/5000.

CLIENT GENERAL MOTORS

SKETCH AND DESCRIPTION OF A 0.88 ACRE PARCEL OF LAND-LNAPL ASSESSMENT AND REMEDIATION AREA LOCATED IN

SECTIONS 2, 3, 34 & 35, T 11&12 N, R4E
SAGINAW TOWNSHIP
SAGINAW COUNTY

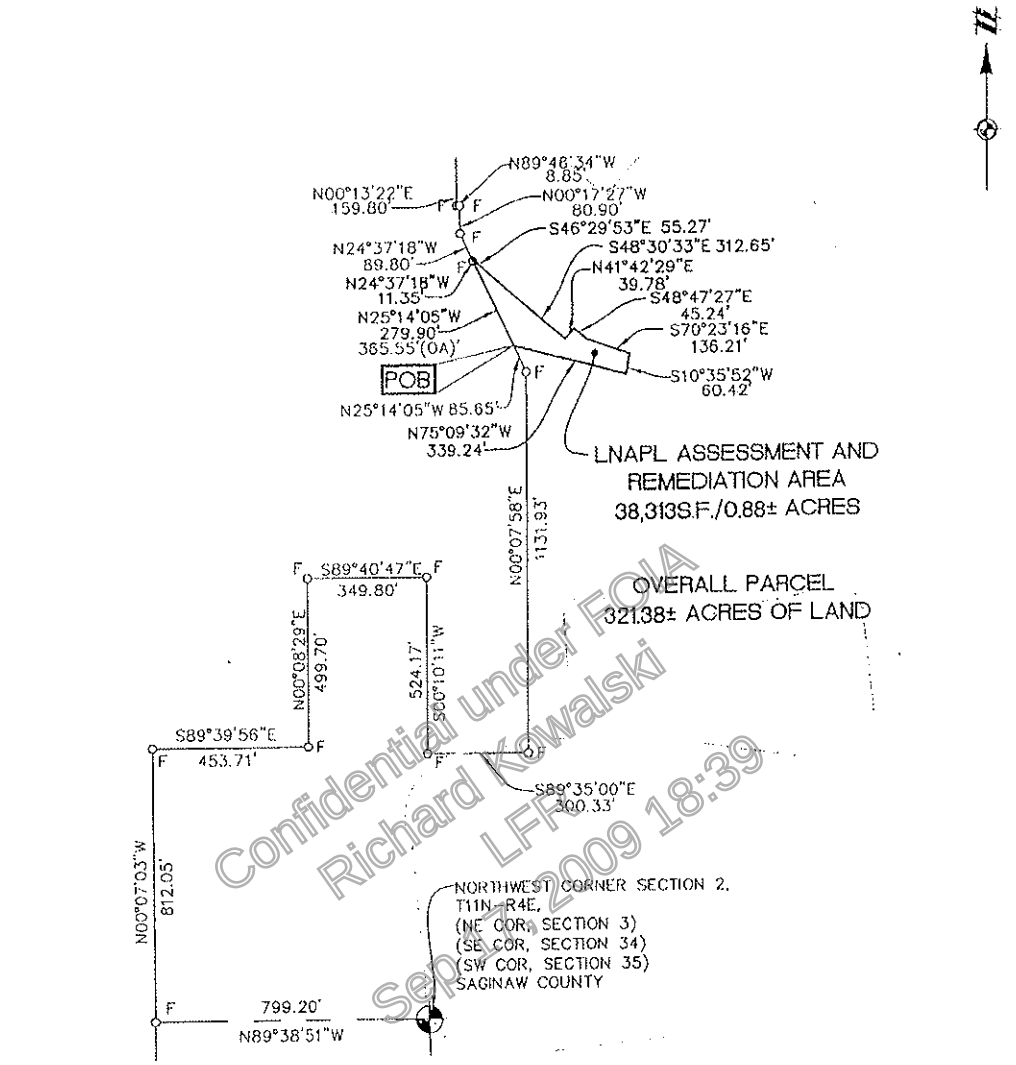
SCALE: 1 INCH = 800 FEET (0 400 800)

JOB: 05000618 | CAD 0500D61BSU-10
DR. NLW | CH. MDE
BOOK MA144-9 | PG. 63-65
SHEET 1 OF 4 | DATE: 07-18-08
FILE CODE: SU-10

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LEGEND

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$\odot_F$	FOUND CONCRETE MONUMENT
POB	PLACE OF BEGINNING
R/W	RIGHT--OF--WAY

BEARING BASIS: NAD 83
MI SOUTH
1994 ADJUSTMENT

PROFESSIONAL SURVEYOR
NUMBER 49352

I HEREBY CERTIFY THAT I HAVE SURVEYED AND MAPPED THE LAND ABOVE PLATTED AND/OR DESCRIBED ON JULY 8 2008, AND THAT THE RATIO OF CLOSURE ON THE UNADJUSTED FIELD OBSERVATIONS OF SUCH SURVEY WAS 1/5000.

CLIENT GENERAL MOTORS

SKETCH AND DESCRIPTION OF A 0.88 ACRE PARCEL OF LAND-LNAPL ASSESSMENT AND REMEDIATION AREA LOCATED IN

SECTIONS 2, 3, 34 & 35, T 11&12 N, R4E
CITY OF SAGINAW
SAGINAW COUNTY

SCALE: 1 INCH = 400 FEET
0 200 400

JOB: 05000618	CAD: 05000618SU-10
DR: NLW	CH: MDE
BOOK: MA144-9	PG: 63-65
SHEET: 3 OF 4	DATE: 07-18-08
FILE CODE: SU-10	

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DESCRIPTION OF A 0.88 ACRE PARCEL OF LAND

Commencing at the Southwest Corner of Section 35, being part of Section 35, T12N, R4E, City of Saginaw, Saginaw County, Michigan; thence N89°38'51"W 799.20 feet; thence N00°07'03"W 812.05 feet; thence S89°39'56"E 453.71 feet; thence North 00°08'29"E 499.70 feet; thence S89°40'47"E 349.80 feet; thence S00°10'11"W 524.17 feet; thence S89°35'00"E 300.33 feet; thence N00°07'58"E 1131.93 feet; thence N25°14'05"W 85.65 feet for a PLACE OF BEGINNING; thence N25°14'05"W 279.90 feet; thence N24°37'18"W 11.35 feet; thence S46°29'53"E 55.27 feet; thence S48°30'33"E 312.65 feet; thence N41°42'29"E 39.78 feet; thence S48°47'27"E 45.24 feet; thence S70°23'16"E 136.21 feet; thence S10°35'52"W 60.42 feet; thence N75°09'32"W 339.24 feet to the Place of Beginning. Containing 38,313 S.F. (0.88 acres) of land, more or less, subject to easements, conditions, restrictions and exceptions of record, if any.

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PROFESSIONAL SURVEYOR
NUMBER 49352

I HEREBY CERTIFY THAT I HAVE SURVEYED AND MAPPED THE LAND ABOVE PLATTED AND/OR DESCRIBED ON JULY 8 2008, AND THAT THE RATIO OF CLOSURE ON THE UNADJUSTED FIELD OBSERVATIONS OF SUCH SURVEY WAS 1/5000.

CLIENT GENERAL MOTORS	JOB: 05000618
SKETCH AND DESCRIPTION OF A 0.88 ACRE PARCEL OF LAND-LNAPL ASSESSMENT AND REMEDIATION AREA LOCATED IN	DR: NLW
SECTIONS 2, 3, 34 & 35, T 11&12 N, R4E CITY OF SAGINAW SAGINAW COUNTY	BOOK MA144-9
	SHEET 4 OF 4
	FILE CODE: SU-10
	CAD: 05000618SU-10
	CH: MDE
	PG: 63-65
	DATE: 07-18-08

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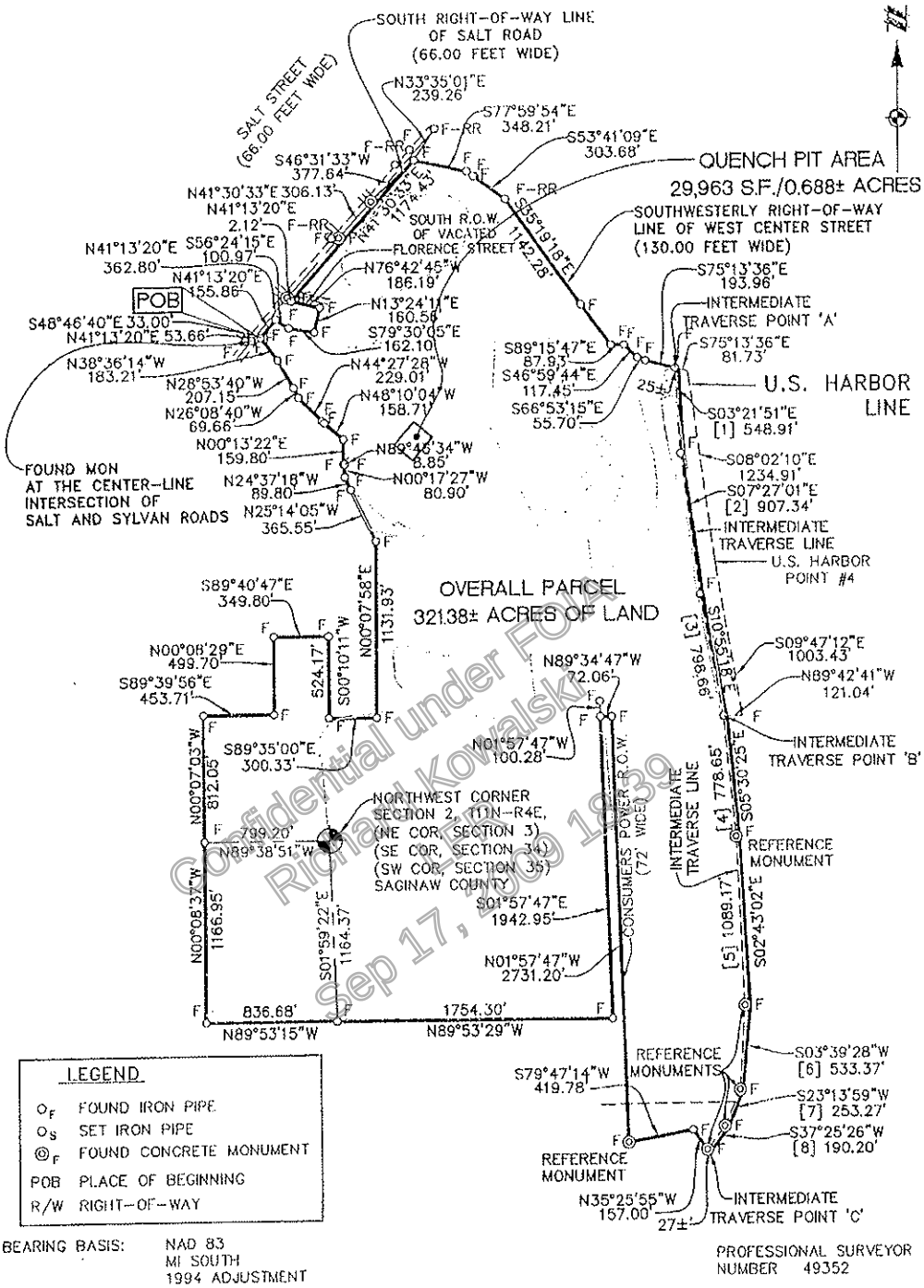
EXHBIT 4

QUENCH PIT AREA SURVEY AND LEGAL DESCRIPTION

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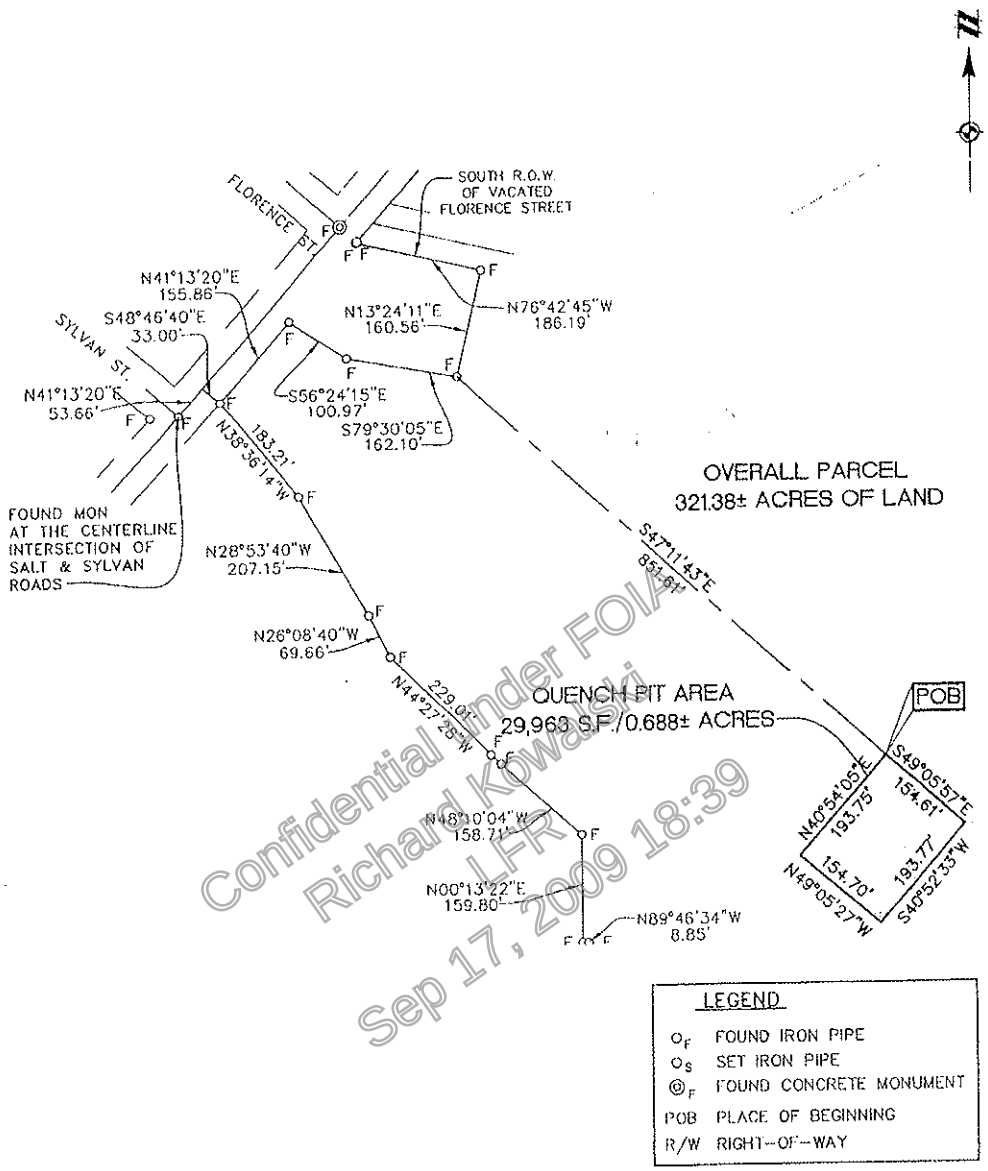
I HEREBY CERTIFY THAT I HAVE SURVEYED AND MAPPED THE LAND ABOVE PLATTED AND/OR DESCRIBED ON JULY 8 2008, AND THAT THE RATIO OF CLOSURE ON THE UNADJUSTED FIELD OBSERVATIONS OF SUCH SURVEY WAS 1/5000.

CLIENT: GENERAL MOTORS	JOB: 05000618
SKETCH AND DESCRIPTION OF A 0.688 ACRE PARCEL OF LAND – QUENCH PIT AREA LOCATED IN	DR: NLW
SECTIONS 2, 3, 34 & 35, T11&12 N, R4E CITY OF SAGINAW SAGINAW COUNTY	BOOK: MA144-9
SCALE: 1 INCH =800 FEET (0 400 800)	SHEET: 1 OF 4
	FILE CODE: SU-09
	CAD: 0500061BSU-09
	CH: MDE
	PG: 63-65
	DATE: 07-18-08

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LEGEND	
O_F	FOUND IRON PIPE
O_S	SET IRON PIPE
$\odot_F$	FOUND CONCRETE MONUMENT
POB	PLACE OF BEGINNING
R/W	RIGHT-OF-WAY

BEARING BASIS: NAD 83
MI SOUTH
1994 ADJUSTMENT

PROFESSIONAL SURVEYOR
NUMBER 49352

I HEREBY CERTIFY THAT I HAVE SURVEYED AND MAPPED THE LAND ABOVE PLATTED AND/OR DESCRIBED ON JULY 8 2008, AND THAT THE RATIO OF CLOSURE ON THE UNADJUSTED FIELD OBSERVATIONS OF SUCH SURVEY WAS 1/5000.

CLIENT GENERAL MOTORS

SKETCH AND DESCRIPTION OF A 0.688 ACRE PARCEL OF LAND -- QUENCH PIT AREA LOCATED IN

SECTIONS 2, 3, 34 & 35, T11&12 N, R4E
CITY OF SAGINAW
SAGINAW COUNTY

SCALE: 1 INCH =200 FEET (0 100 200)

JOB: 05000618	CAD: 05000618SU-09
DR: NLW	CH: MDE
BOOK: MA144-9	PG: 63-65
SHEET 3 OF 4	DATE: 07-18-08
FILE CODE: SU-09	

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DESCRIPTION OF A 0.688 ACRE PARCEL OF LAND

Commencing at a found monument at the center--line intersections of Salt Road (66.00 feet wide) and Sylvan Road (60.00 feet wide) being part of Section 35, T12N, R4E, City of Saginaw, Saginaw County, Michigan; thence N41°13'20"E 53.66 feet along the center--line of said Salt Road; thence S48°46'40"E 33.00 feet perpendicular to said center--line of said Salt Road; thence N41°13'20"E 155.86 feet along the Southeasterly Right--of--Way line of said Salt Road; thence S56°24'15"E 100.97 feet; thence S79°30'05"E 162.10 feet; thence S47°11'43"E 851.61 feet for a **PLACE OF BEGINNING;** thence S49°05'57"E 154.61 feet; thence S40°52'33"W 193.77 feet; thence N49°05'27"W 154.70 feet; thence N40°54'05"E 193.75 feet to the Place of Beginning Containing 29,963 S.F. (0.688 acres) of land, more or less, subject to easements, conditions, restrictions and exceptions of record, if any.

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BEARING BASIS: NAD 83
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1994 ADJUSTMENT

PROFESSIONAL SURVEYOR
NUMBER 49352

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CLIENT GENERAL MOTORS	JOB: 05000618	CAD: 05000618SU-09
SKETCH AND DESCRIPTION OF A 0.688 ACRE PARCEL OF LAND – QUENCH PIT AREA LOCATED IN	DR: NLW	CH: MDE
	BOOK: MA144--9	PG: 63--65
	SHEET 4 OF 4	DATE: 07--18--08
SECTIONS 2, 3, 34 & 35, T11&12 N, R4E CITY OF SAGINAW SAGINAW COUNTY	FILE CODE: SU--09	
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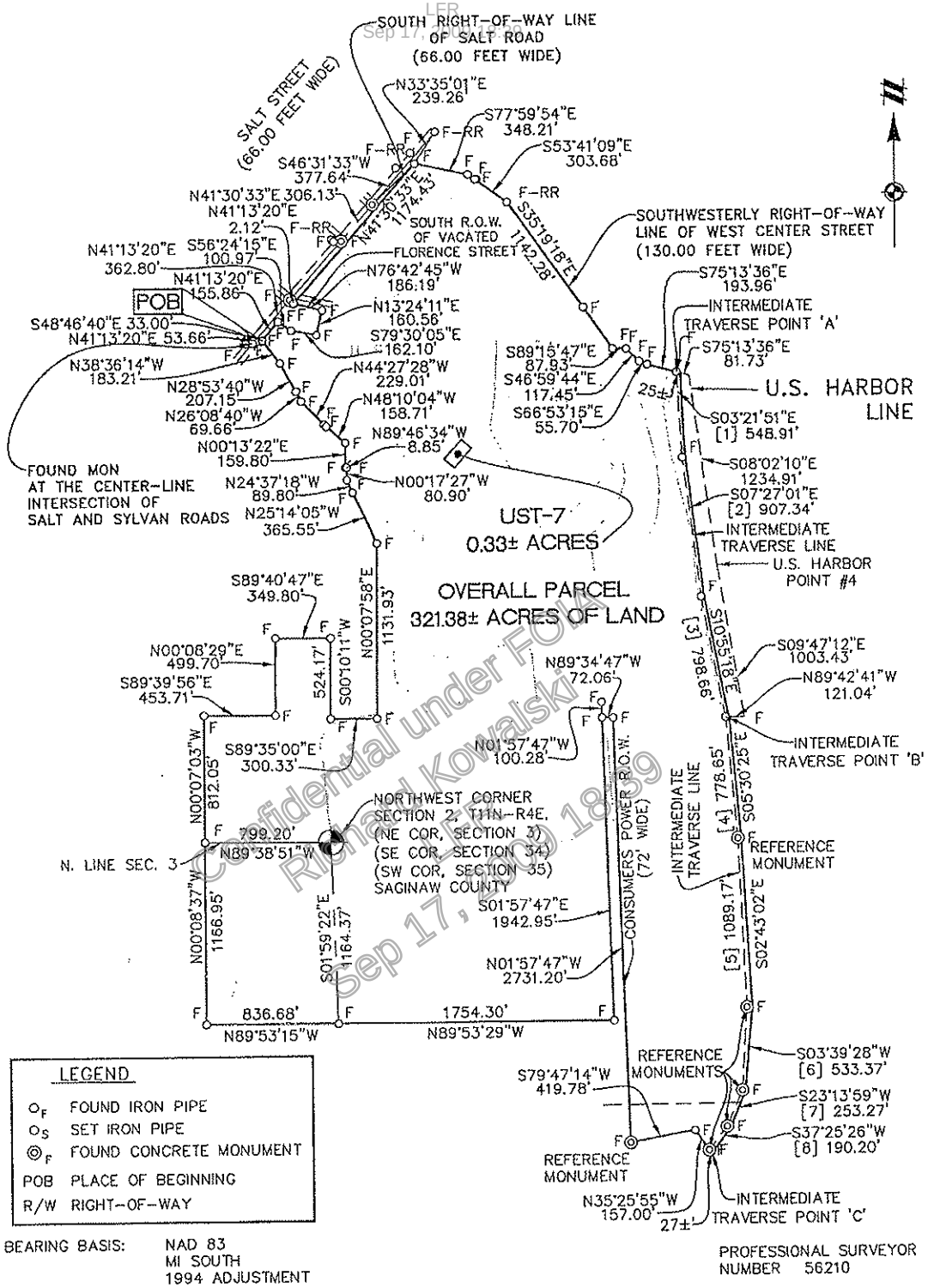
EXHIBIT 5

FORMER UST -7 AREA SURVEY AND LEGAL DESCRIPTION

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LEGEND

O_F	FOUND IRON PIPE
O_S	SET IRON PIPE
$\circledcirc_F$	FOUND CONCRETE MONUMENT
POB	PLACE OF BEGINNING
R/W	RIGHT-OF-WAY

BEARING BASIS: NAD 83
MI SOUTH
1994 ADJUSTMENT

PROFESSIONAL SURVEYOR
NUMBER 56210

I HEREBY CERTIFY THAT I HAVE SURVEYED AND MAPPED THE LAND ABOVE PLATTED AND/OR DESCRIBED ON MAY 12, 2009, AND THAT THE RATIO OF CLOSURE ON THE UNADJUSTED FIELD OBSERVATIONS OF SUCH SURVEY WAS 1/5000.

CLIENT GENERAL MOTORS

SKETCH AND DESCRIPTION OF A 0.33 ACRE PARCEL OF LAND "UST-7" LOCATED IN

SECTIONS 2, 3, 34 & 35, T11&12N, R4E
CITY OF SAGINAW
SAGINAW COUNTY, MICHIGAN

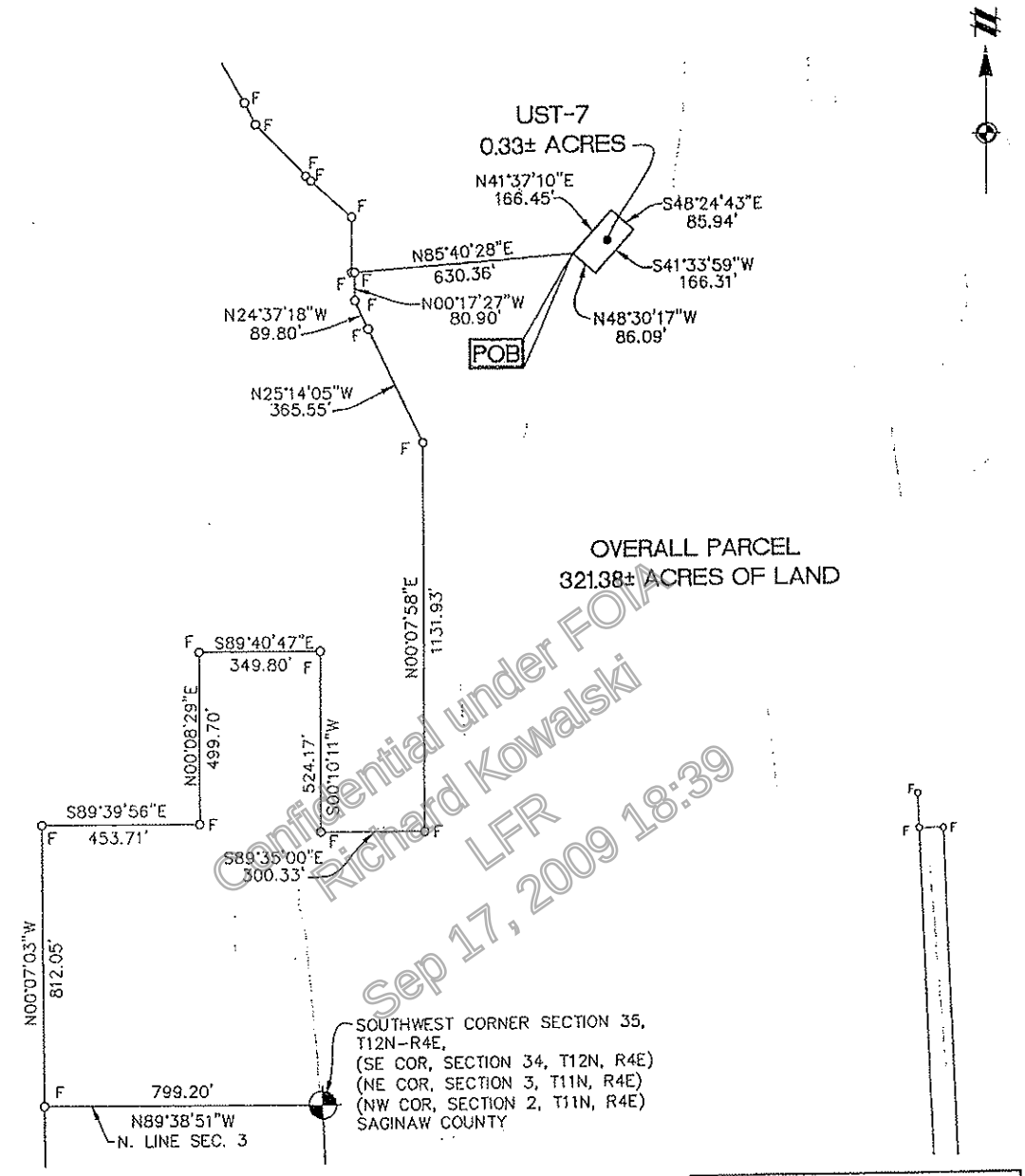
SCALE: 1 INCH =800 FEET (0 400 800)

JOB: 05000618	CAD 08003152SU-15
DR. BAL	CH. CAL
BOOK 1177	PG. 54
SHEET 1 OF 4	DATE: 5/13/09
FILE CODE: SU-0-15	

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LEGEND

O_F	FOUND IRON PIPE
O_S	SET IRON PIPE
$\odot_F$	FOUND CONCRETE MONUMENT
POB	PLACE OF BEGINNING
R/W	RIGHT-OF-WAY

BEARING BASIS: NAD 83
MI SOUTH
1994 ADJUSTMENT

I HEREBY CERTIFY THAT I HAVE SURVEYED AND MAPPED THE LAND ABOVE PLATTED AND/OR DESCRIBED ON MAY 12, 2009, AND THAT THE RATIO OF CLOSURE ON THE UNADJUSTED FIELD OBSERVATIONS OF SUCH SURVEY WAS 1/5000.

PROFESSIONAL SURVEYOR
NUMBER 56210

CLIENT GENERAL MOTORS

SKETCH AND DESCRIPTION OF A 0.33 ACRE PARCEL OF LAND "UST-7" LOCATED IN

SECTIONS 2, 3, 34 & 35, T11&12N, R4E
CITY OF SAGINAW
SAGINAW COUNTY, MICHIGAN

SCALE: 1 INCH =400 FEET (0 200 400)

JOB:	05000618	CAD	08003152SU-15
DR.	BAL	CH.	CAL
BOOK	1177	PG.	54
SHEET	3 OF 4	DATE:	5/13/09
FILE CODE:	SU-0-15		

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DESCRIPTION OF A 0.33 ACRE PARCEL OF LAND

Commencing at the Southwest Corner of Section 35, being part of Section 35, T12N, R4E, City of Saginaw, Saginaw County, Michigan; thence N89°38'51"W 799.20 feet along the North line of Section 3, T11N, R4E; thence N00°07'03"W 812.05 feet; thence S89°39'56"E 453.71 feet; thence N00°08'29"E 499.70 feet; thence S89°40'47"E 349.80 feet; thence S00°10'11"W 524.17 feet; thence S89°35'00"E 300.33 feet; thence N00°07'58"E 1131.93 feet; thence N25°14'05"W 365.55 feet; thence N24°37'18'W 89.80 feet; thence N00°17'27"W 80.90 feet; thence N85°40'28"E 630.36 feet for o PLACE OF BEGINNING; thence N41°37'10"E 166.45 feet; thence S48°24'43"E 85.94 feet; thence S41°33'59"W 166.31 feet; thence N48°30'17"W 86.09 feet to the Place of Beginning, containing 0.33 acres of land, more or less, subject to easements, conditions, restrictions and exceptions of record, if any.

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PROFESSIONAL SURVEYOR
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I HEREBY CERTIFY THAT I HAVE SURVEYED AND MAPPED THE LAND ABOVE PLATTED AND/OR DESCRIBED ON MAY 12, 2009, AND THAT THE RATIO OF CLOSURE ON THE UNADJUSTED FIELD OBSERVATIONS OF SUCH SURVEY WAS 1/5000.

CLIENT GENERAL MOTORS	JOB: 05000618	CAD 08003152SU-15
SKETCH AND DESCRIPTION OF A 0.33 ACRE PARCEL OF LAND "UST-7" LOCATED IN	DR. BAL	CH. CAL
	BOOK 1177	PG. 54
	SHEET 4 OF 4	DATE: 5/13/09
SECTIONS 2, 3, 34 & 35, T11&12N, R4E CITY OF SAGINAW SAGINAW COUNTY, MICHIGAN	FILE CODE: SU-0-15	

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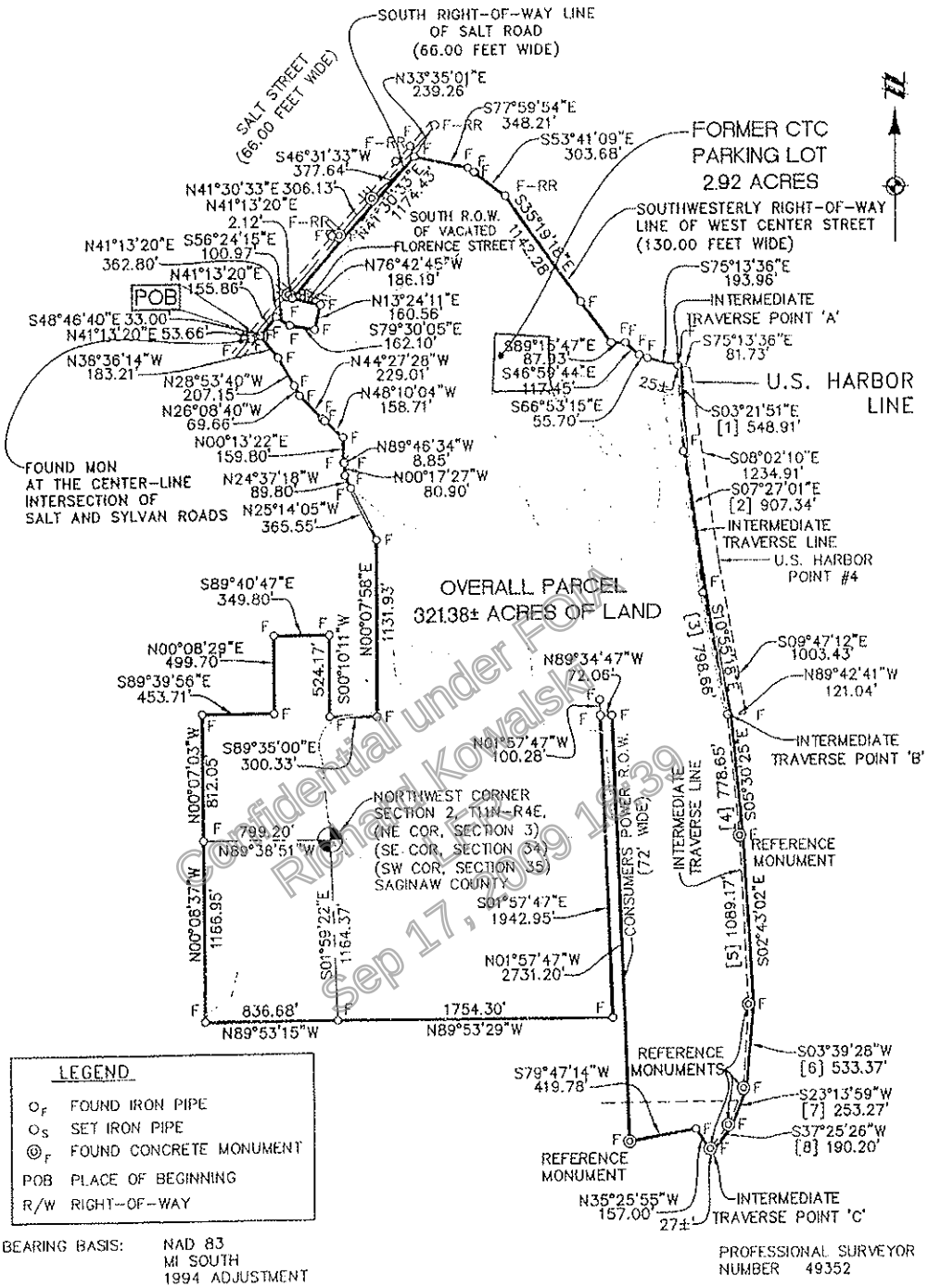
EXHIBIT 6

FORMER CTC PARKING LOT SURVEY AND LEGAL DESCRIPTION

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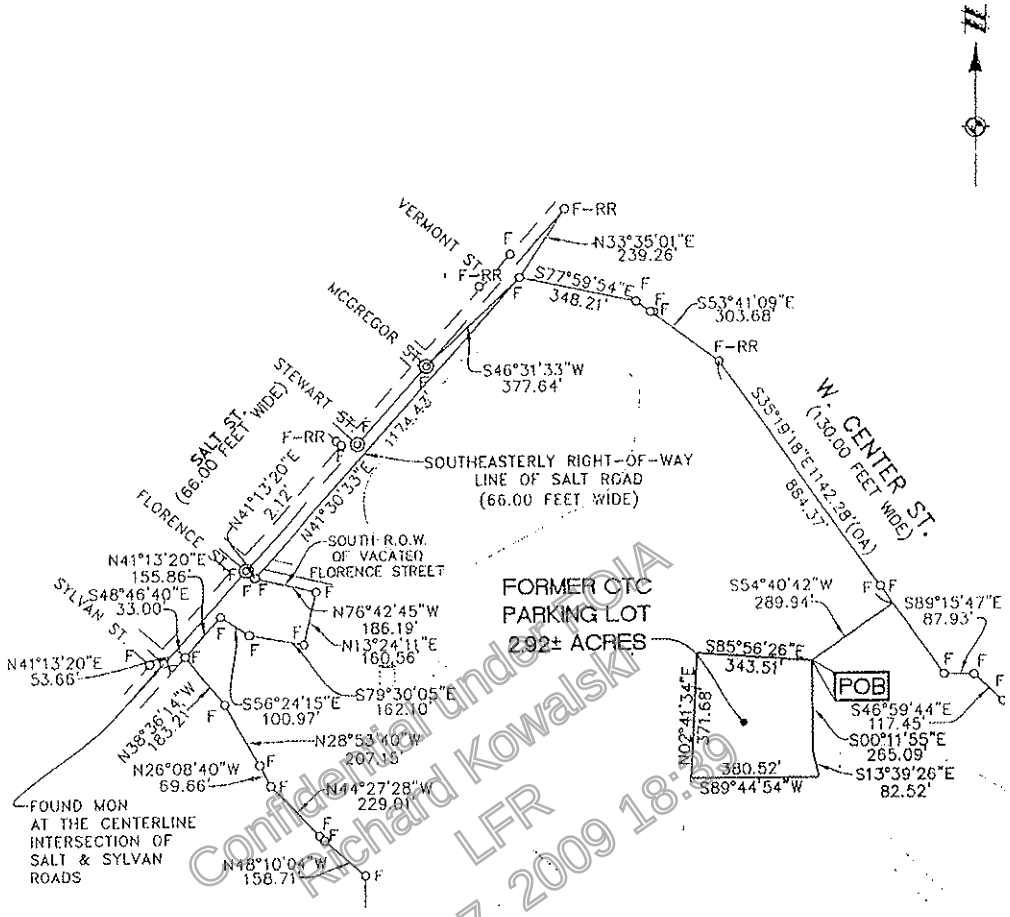
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I HEREBY CERTIFY THAT I HAVE SURVEYED AND MAPPED THE LAND ABOVE PLATTED AND/OR DESCRIBED ON JULY 8 2008, AND THAT THE RATIO OF CLOSURE ON THE UNADJUSTED FIELD OBSERVATIONS OF SUCH SURVEY WAS 1/5000.

CLIENT GENERAL MOTORS	JOB: 05000618	CAD: 05000618SU-04
SKETCH AND DESCRIPTION OF A 2.92 ACRE PARCEL OF LAND-FORMER CTC PARKING LOT LOCATED IN	DR: NLW	CH: MDE
	BOOK: MA144-9	PG: 63-65
SECTIONS 2, 3, 34 & 35, T11&12 N, R4E CITY OF SAGINAW SAGINAW COUNTY	SHEET 1 OF 4	DATE: 07-18-08
	PRJ CODE: SU-04	
SCALE: 1 INCH =800 FEET (0 400 800)	ATWELL-HICKS www.atwell-hicks.com 866 850 4200	
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LEGEND

O_F	FOUND IRON PIPE
O_S	SET IRON PIPE
$\odot_F$	FOUND CONCRETE MONUMENT
POB	PLACE OF BEGINNING
R/W	RIGHT-OF-WAY

BEARING BASIS: NAD 83
MI SOUTH
1994 ADJUSTMENT

PROFESSIONAL SURVEYOR
NUMBER 49352

I HEREBY CERTIFY THAT I HAVE SURVEYED AND MAPPED THE LAND ABOVE PLATTED AND/OR DESCRIBED ON JULY 8 2008, AND THAT THE RATIO OF CLOSURE ON THE UNADJUSTED FIELD OBSERVATIONS OF SUCH SURVEY WAS 1/5000.

CLIENT GENERAL MOTORS

SKETCH AND DESCRIPTION OF A 2.92 ACRE PARCEL OF LAND--FORMER CTC PARKING LOT LOCATED IN

SECTIONS 2, 3, 34 & 35, T11&12 N, R4E
CITY OF SAGINAW
SAGINAW COUNTY

SCALE: 1 INCH = 400 FEET
0 200 400

JOB: 05000618
DR: NLW
BOOK MA144-9
SHEET 3 OF 4
FILE CODE: SU-04

CAD 05000618SU-04
CH: MDE
PG. 63-65
DATE: 07-18-08

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DESCRIPTION OF A 2.92 ACRE PARCEL OF LAND

Commencing at a found monument at the center-line intersections of Salt Road (66.00 feet wide) and Sylvan Road (60.00 feet wide) being part of Sections 34 & 35, T12N, R4E, and part of Sections 2 & 3, T11N, R4E, City of Saginaw, Saginaw County, Michigan; thence N41°13'20"E 53.66 feet along the center-line of said Salt Road; thence S48°46'40"E 33.00 feet perpendicular to said center-line of said Salt Road; thence N41°13'20"E 155.86 feet along the Southeasterly Right-of-Way line of said Salt Road; thence S56°24'15"E 100.97 feet; thence S79°30'05"E 162.10 feet; thence N13°24'11"E 160.56 feet; thence along the Southwesterly Right-of-Way line of vacated relocated Florence Street (66.00 feet wide) as recorded thereof in Liber 1269, Page 348 of Saginaw County Records, N76°42'45"W 186.19 feet to the said Southeasterly Right-of-Way line of said Salt Road, said point being S44°49'19"E 33.08 feet from a found monument at the center-line of said Salt Road; thence N41°13'20"E 2.12 feet along the Southeasterly Right-of-Way line of said Salt Road; thence N41°30'33"E 1174.43 feet continuing along said Southeasterly Right-of-Way line of said Salt Road to the Southwesterly Right-of-Way Line of West Center Street (130.00 feet wide) for the following three (3) courses: [1]S77°59'54"E 348.21 feet; [2]S53°41'09"E 303.68 feet; [3]S35°19'18"E 884.37 feet; thence S54°40'42"W 289.94 feet for a **PLACE OF BEGINNING**; thence S00°11'55"E 265.09 feet; thence S13°39'26"E 82.52 feet; thence S89°44'54"W 380.52 feet; thence N02°41'34"E 371.68 feet; thence S85°56'26"E 343.51 feet to the Place of Beginning. Containing 2.92 acres of land, more or less, subject to easements, conditions, restrictions and exceptions of record, if any.

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PROFESSIONAL SURVEYOR
NUMBER 49352

I HEREBY CERTIFY THAT I HAVE SURVEYED AND MAPPED THE LAND ABOVE PLATTED AND/OR DESCRIBED ON JULY 8 2008, AND THAT THE RATIO OF CLOSURE ON THE UNADJUSTED FIELD OBSERVATIONS OF SUCH SURVEY WAS 1/5000.

CLIENT GENERAL MOTORS	JOB: 05000618	CAD: 05000618SU-04
SKETCH AND DESCRIPTION OF A 2.92 ACRE PARCEL OF LAND-FORMER CTC PARKING LOT LOCATED IN	DR. NLW	CH. MDE
	BOOK MA144-9	PG. 63-65
	SHEET 4 OF 4	DATE: 07-18-08
SECTIONS 2, 3, 34 & 35, T11&12 N, R4E CITY OF SAGINAW SAGINAW COUNTY	FILE CODE: SU-04	
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Sep 17, 2009 18:39

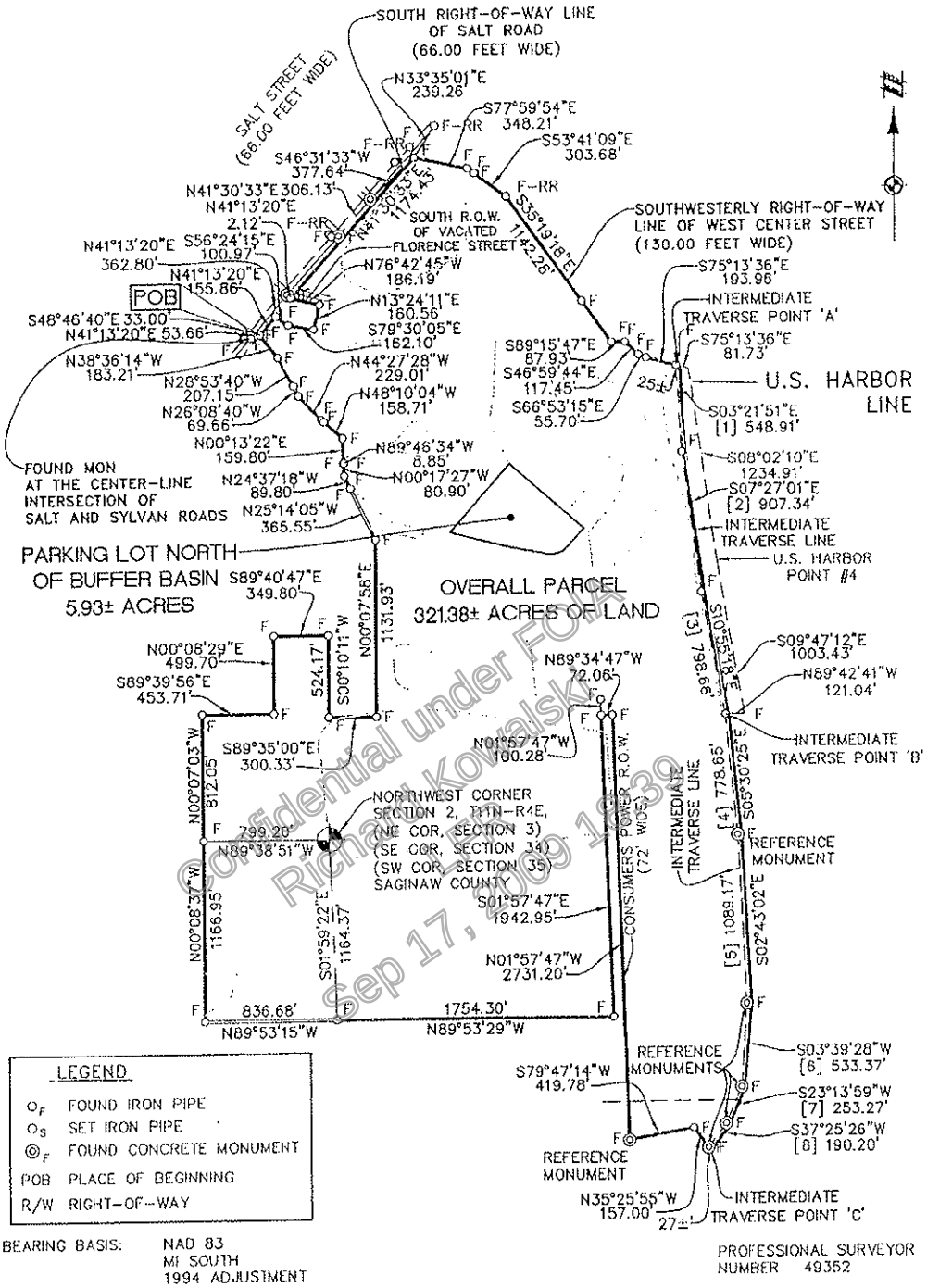
EXHIBIT 7

PARKING LOT NORTH OF BUFFER BASIN SURVEY AND LEGAL DESCRIPTION

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LEGEND

O_F	FOUND IRON PIPE
O_S	SET IRON PIPE
$\odot_F$	FOUND CONCRETE MONUMENT
POB	PLACE OF BEGINNING
R/W	RIGHT-OF-WAY

BEARING BASIS: NAD 83
MI SOUTH
1994 ADJUSTMENT

PROFESSIONAL SURVEYOR
NUMBER 49352

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CLIENT GENERAL MOTORS

SKETCH AND DESCRIPTION OF A 5.93 ACRE PARCEL OF LAND--PARKING LOT NORTH OF BUFFER BASIN LOCATED IN

SECTIONS 2, 3, 34 & 35, T11&12 N, R4E
CITY OF SAGINAW
SAGINAW COUNTY

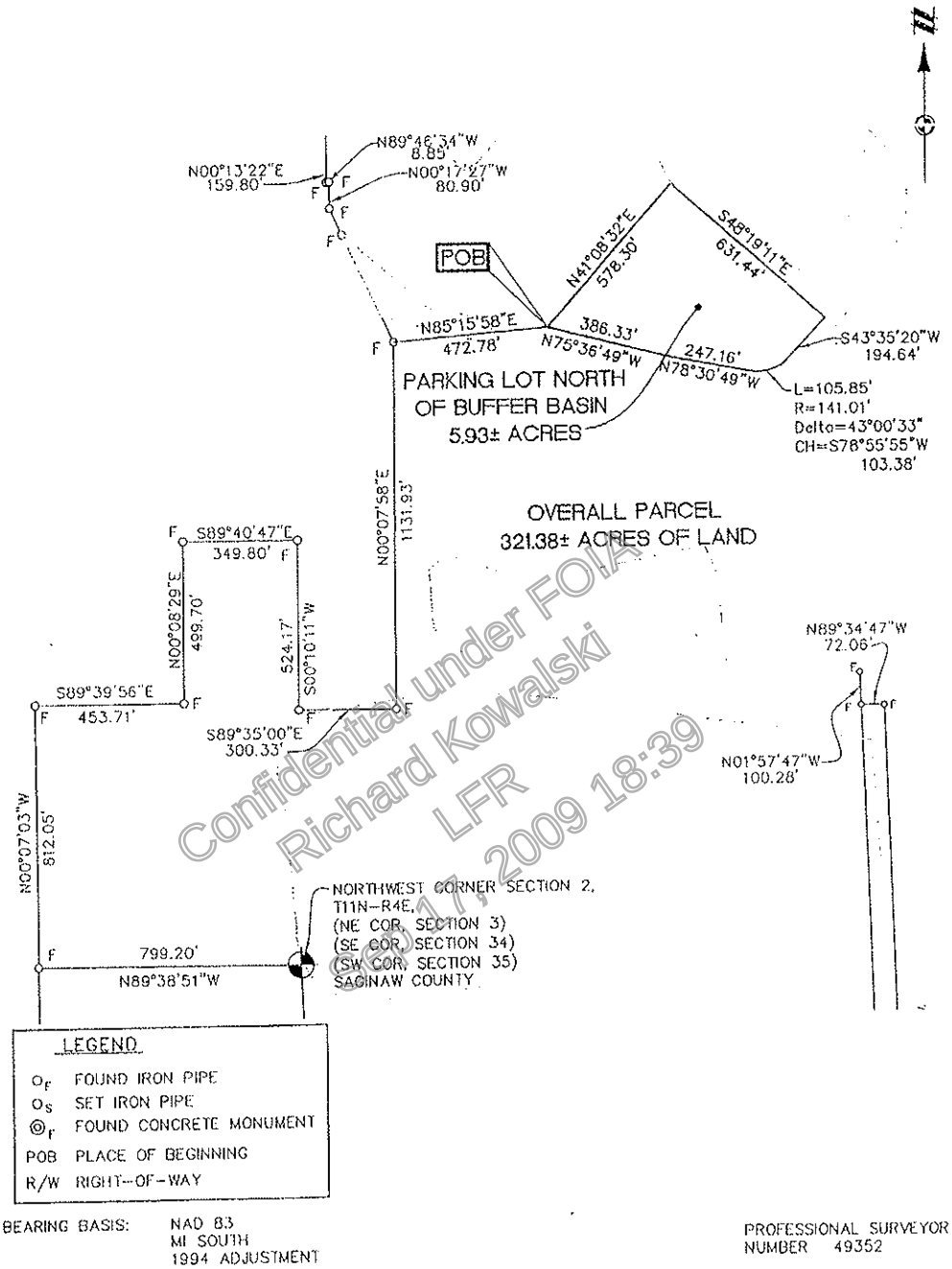
SCALE: 1 INCH = 800 FEET (0 400 800)

JOB: 05000618
CAD: 05000618SU-14
DR: NLW
CH: MDE
BOOK: MA144-9
PG: 63-65
SHEET 1 OF 4
DATE: 07-18-08
FILE CODE: SU-14

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LEGEND

O_F	FOUND IRON PIPE
O_S	SET IRON PIPE
$\odot_f$	FOUND CONCRETE MONUMENT
POB	PLACE OF BEGINNING
R/W	RIGHT-OF-WAY

BEARING BASIS: NAD 83
MI SOUTH
1994 ADJUSTMENT

PROFESSIONAL SURVEYOR
NUMBER 49352

I HEREBY CERTIFY THAT I HAVE SURVEYED AND MAPPED THE LAND ABOVE PLATTED AND/OR DESCRIBED ON JULY 8 2008, AND THAT THE RATIO OF CLOSURE ON THE UNADJUSTED FIELD OBSERVATIONS OF SUCH SURVEY WAS 1/5000.

CLIENT GENERAL MOTORS

SKETCH AND DESCRIPTION OF A 5.93 ACRE PARCEL OF LAND-PARKING LOT NORTH OF BUFFER BASIN LOCATED IN

SECTIONS 2, 3, 34 & 35, T11&12 N, R4E
CITY OF SAGINAW
SAGINAW COUNTY

SCALE: 1 INCH = 400 FEET (0 200 400)

JOB: 05000618
DR. NLW
BOOK MA144-9
SHEET 3 OF 4
FILE CODE: SU-14

CAD 05000618SU-14
CH. MDE
PG. 63-65
DATE: 07-18-08

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Sep 17, 2009 18:39

DESCRIPTION OF A 5.93 ACRE PARCEL OF LAND

Commencing at the Southwest Corner of Section 35, being part of Sections 34 & 35, T12N, R4E, and part of Sections 2 & 3, T11N, R4E, City of Saginaw, Saginaw County, Michigan; thence N89°38'51"W 799.20 feet; thence N00°07'03"W 812.05 feet; thence S89°39'56"E 453.71 feet; thence N00°08'29"E 499.70 feet; thence S89°40'47"E 349.80 feet; thence S00°10'11"W 524.17 feet; thence S89°35'00"E 300.33 feet; thence N00°07'58"E 1131.93 feet; thence N85°15'58"E 472.78 feet for a PLACE OF BEGINNING; thence N41°08'32"E 578.30 feet; thence S48°19'11"E 631.44 feet; thence S43°35'20"W 194.64 feet; thence 105.85 feet along the arc of a 141.01 foot radius non-tangential circular curve to the right, with a central angle of 43°00'33", having a chord which bears S78°55'55"W 103.38 feet; thence N78°30'49"W 247.16 feet; thence N75°36'49"W 386.33 feet to the Place of Beginning. Containing 5.93 acres of land, more or less, subject to easements, conditions, restrictions and exceptions of record, if any.

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BEARING BASIS: NAD 83
MI SOUTH
1994 ADJUSTMENT

PROFESSIONAL SURVEYOR
NUMBER 49352

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CLIENT GENERAL MOTORS	JOB: 05000618	CAD 0500061BSU-14
SKETCH AND DESCRIPTION OF A 5.93 ACRE PARCEL OF LAND-PARKING LOT NORTH OF BUFFER BASIN LOCATED IN	DR. NLW	CH. MDE
	BOOK MA144-9	PG. 63-65
	SHEET 4 OF 4	DATE: 07-18-08
	FILE CODE: SU-14	
SECTIONS 2, 3, 34 & 35, T11&12 N, R4E CITY OF SAGINAW SAGINAW COUNTY	ATWELL-HICKS www.atwell-hicks.com 866 850 4200	
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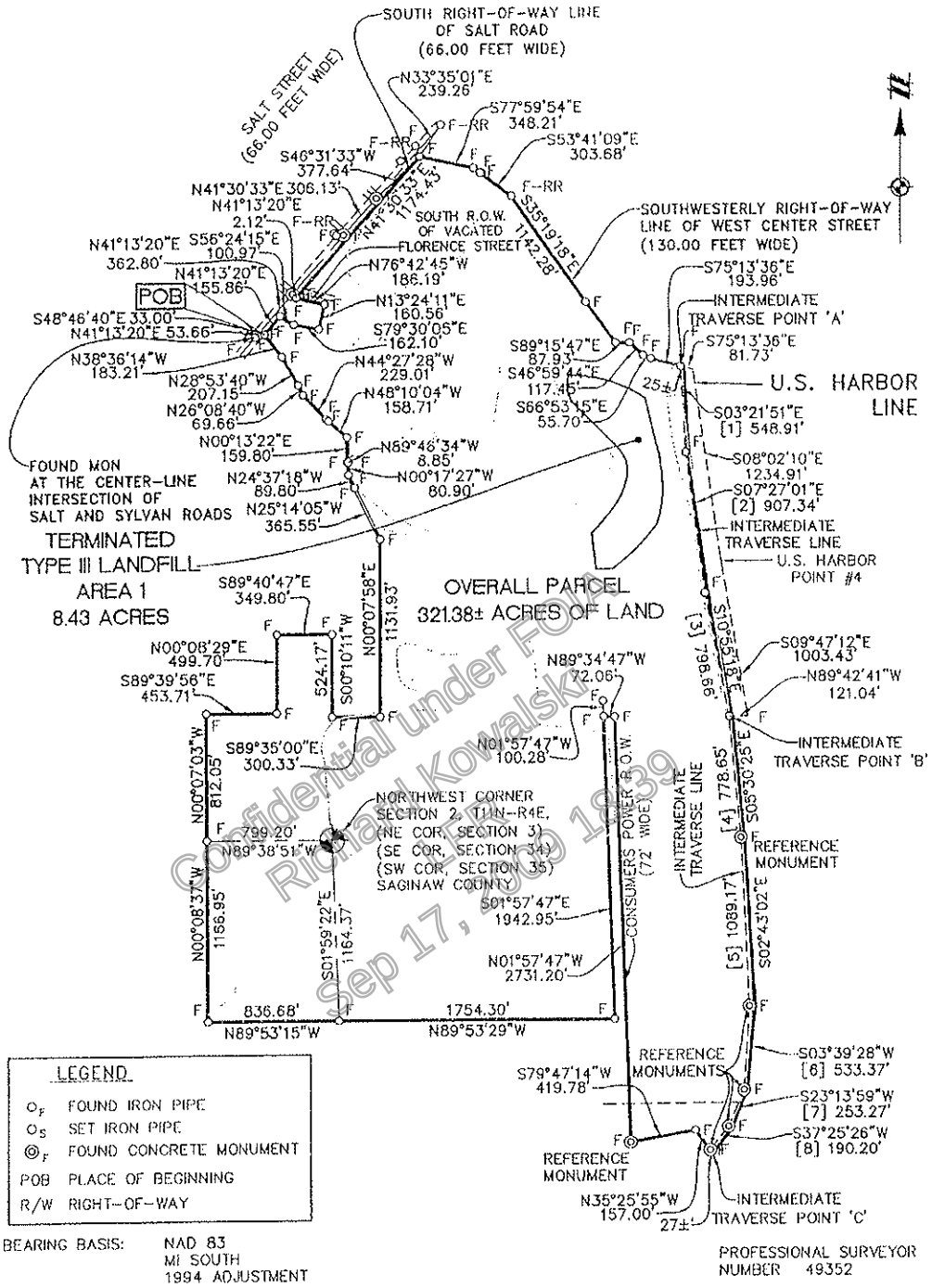
EXHIBIT 8

TYPE III LANDFILLS SURVEY AND LEGAL DESCRIPTIONS

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LEGEND

O_F	FOUND IRON PIPE
O_S	SET IRON PIPE
$\odot_F$	FOUND CONCRETE MONUMENT
POB	PLACE OF BEGINNING
R/W	RIGHT-OF-WAY

BEARING BASIS: NAD 83 MI SOUTH 1994 ADJUSTMENT

PROFESSIONAL SURVEYOR NUMBER 49352

I HEREBY CERTIFY THAT I HAVE SURVEYED AND MAPPED THE LAND ABOVE PLATTED AND/OR DESCRIBED ON JULY 8 2008, AND THAT THE RATIO OF CLOSURE ON THE UNADJUSTED FIELD-OBSERVATIONS OF SUCH SURVEY WAS 1/5000.

CLIENT: GENERAL MOTORS

SKETCH AND DESCRIPTION OF A 8.43 ACRE PARCEL OF LAND - TERMINATED TYPE III LANDFILL AREA 1 LOCATED IN SECTIONS 2, 3, 34 & 35, T11&12 N, R4E CITY OF SAGINAW SAGINAW COUNTY

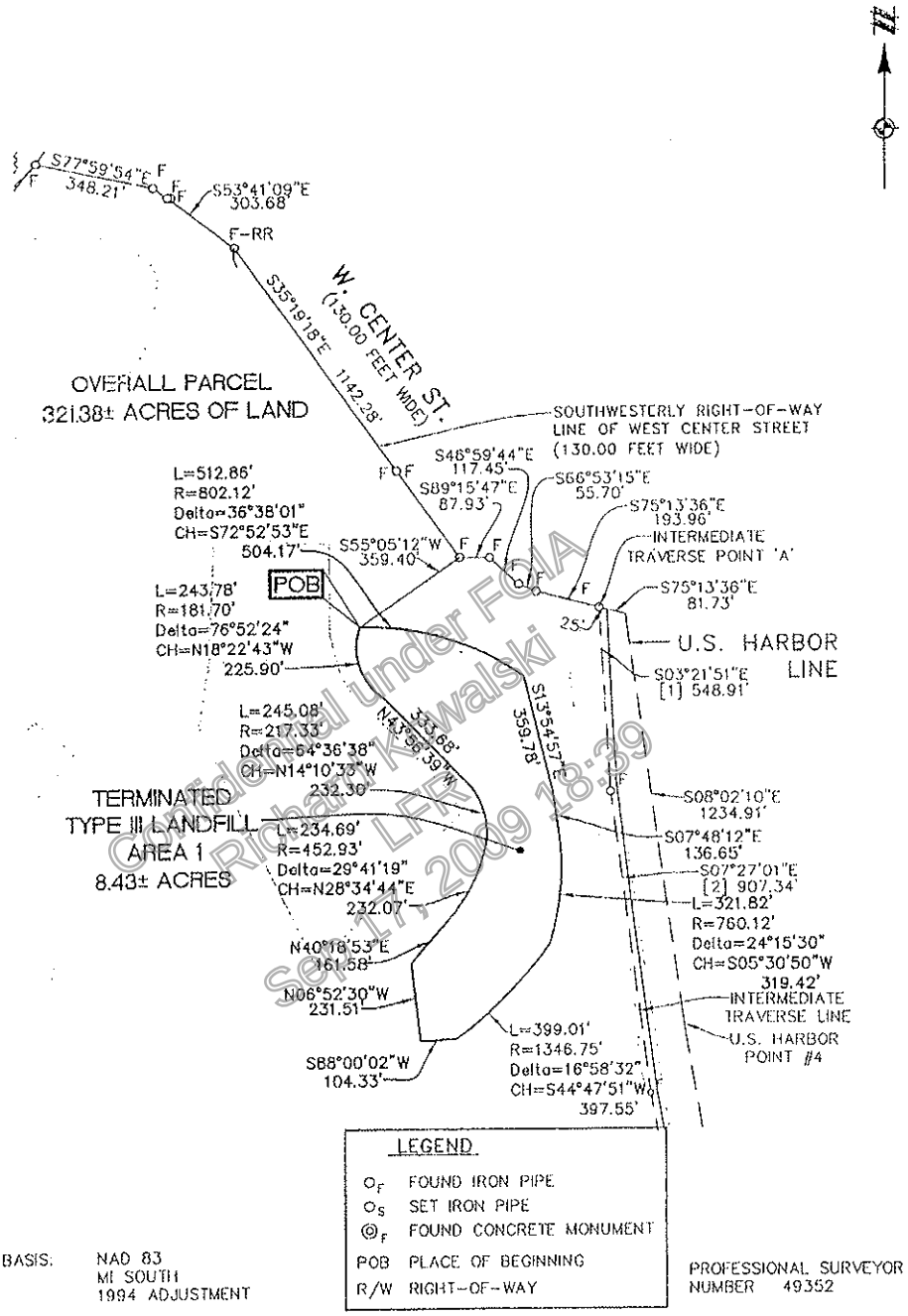
SCALE: 1 INCH = 800 FEET (0, 400, 800)

JOB: 05000618 | CAD: 05000618SU-06
DR.: NLW | CH.: MDE
BOOK: MA144-9 | PG.: 63-65
SHEET 1 OF 4 | DATE: 07-18-08
FILE CODE: SU-06

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Sep 17, 2009 18:39



LEGEND	
O_F	FOUND IRON PIPE
O_S	SET IRON PIPE
$\odot_F$	FOUND CONCRETE MONUMENT
POB	PLACE OF BEGINNING
R/W	RIGHT-OF-WAY

BEARING BASIS: NAD 83
MI SOUTH
1994 ADJUSTMENT

PROFESSIONAL SURVEYOR
NUMBER 49352

I HEREBY CERTIFY THAT I HAVE SURVEYED AND MAPPED THE LAND ABOVE PLATTED AND/OR DESCRIBED ON JULY 8 2008, AND THAT THE RATIO OF CLOSURE ON THE UNADJUSTED FIELD OBSERVATIONS OF SUCH SURVEY WAS 1/5000.

CLIENT: GENERAL MOTORS	JOB: 05000618	CAD: 05000818SU-08
SKETCH AND DESCRIPTION OF A 8.43 ACRE PARCEL OF LAND – TERMINATED TYPE III LANDFILL AREA 1 LOCATED IN	DR: NLW	CH: MDE
	BOOK: MA144-9	PG: 63-65
	SHEET: 3 OF 4	DATE: 07-18-08
SECTIONS 2, 3, 34 & 35, T11&12N, R4E CITY OF SAGINAW SAGINAW COUNTY	FILE CODE: SU-08	ATWELL-HICKS www.atwell-hicks.com 866 850 4200
SCALE: 1 INCH = 400 FEET (0 200 400)	ARIZONA FLORIDA ILLINOIS MICHIGAN OHIO PENNSYLVANIA TENNESSEE	Engineering Surveying Planning / Environmental Ecological Water Resources

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DESCRIPTION OF A 8.43 ACRE PARCEL OF LAND

Commencing at a found monument at the center-line intersections of Salt Road (66.00 feet wide) and Sylvan Road (60.00 feet wide) being part of Sections 34 & 35, T12N, R4E, and part of Sections 2 & 3, T11N, R4E, City of Saginaw, Saginaw County, Michigan; thence N41°13'20"E 53.66 feet along the center-line of said Salt Road; thence S48°46'40"E 33.00 feet perpendicular to said center-line of said Salt Road; thence N41°13'20"E 155.86 feet along the Southeasterly Right-of-Way line of said Salt Road; thence S56°24'15"E 100.97 feet; thence S79°30'05"E 162.10 feet; thence N13°24'11"E 160.56 feet; thence along the Southwesterly Right-of-Way line of vacated relocated Florence Street (66.00 feet wide) as recorded thereof in Liber 1269, Page 348 of Saginaw County Records, N76°42'45"W 186.19 feet to the said Southeasterly Right-of-Way line of said Salt Road, said point being S44°49'19"E 33.08 feet from a found monument at the center-line of said Salt Road; thence N41°13'20"E 2.12 feet along the Southeasterly Line of said Salt Road; thence N41°30'33"E 1174.43 feet continuing along said Southeasterly Right-of-Way line of said Salt Road to the Southwesterly Right-of-Way Line of West Center Street (130.00 feet wide) for the following three (3) courses: [1]S77°59'54"E 348.21 feet; [2]S53°41'09"E 303.68 feet, and [3]S35°19'18"E 1142.28 feet; thence S55°05'12"W 359.40 feet for a **PLACE OF BEGINNING**; thence 512.86 feet along the arc of a 802.12 foot radius non-tangential circular curve to the right, with a central angle of 36°38'01", having a chord which bears S72°52'53"E 504.17 feet; thence S13°54'57"E 359.78 feet; thence S07°48'12"E 136.65 feet; thence 321.82 feet along the arc of a 760.12 foot radius circular curve to the right, with a central angle of 24°15'30", having a chord which bears S05°30'50"W 319.42 feet; thence 399.01 feet along the arc of a 1346.75 foot radius non-tangential circular curve to the right with a central angle of 16°58'32", having a chord which bears S44°47'51"W 397.55 feet; thence S88°00'02"W 104.33 feet; thence N06°52'30"W 231.51 feet; thence N40°18'53"E 161.58 feet; thence 234.69 feet along the arc of a 452.93 foot radius circular curve to the left, with a central angle of 29°41'19", having a chord which bears N28°34'44"E 232.07 feet; thence 245.08 feet along the arc of a 217.33 foot radius compound circular curve to the left, with a central angle of 64°36'38", having a chord which bears N14°10'33"W 232.30 feet; thence N43°56'39"W 333.68 feet; thence 243.78 feet along the arc of a 181.70 foot radius non-tangential circular curve to the right, with a central angle of 76°52'24", having a chord which bears N18°22'43"W 225.90 feet. Containing 8.43 acres of land, more or less, subject to easements, conditions, restrictions and exceptions of record, if any.

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BEARING BASIS: NAD 83
MI SOUTH
1994 ADJUSTMENT

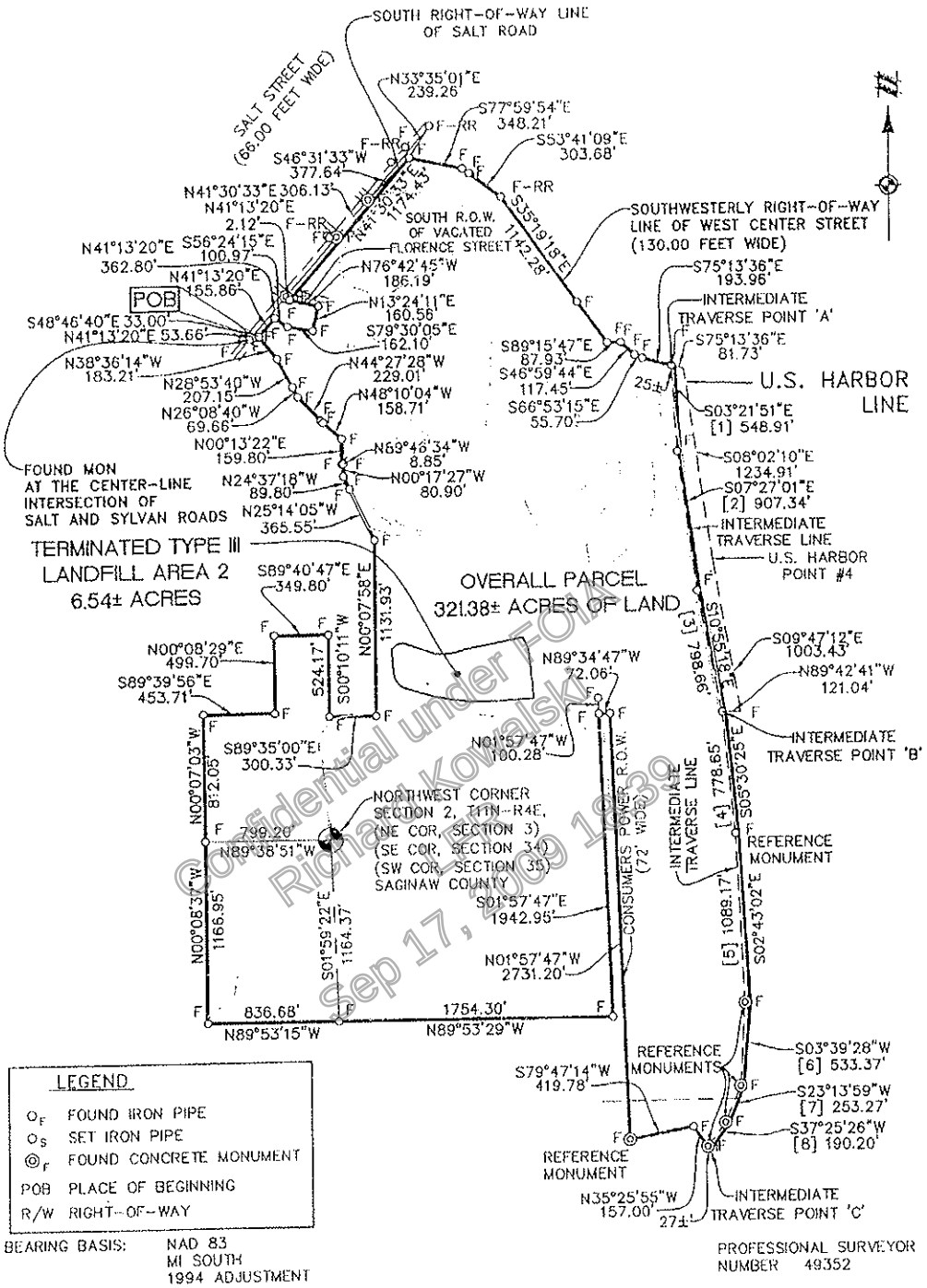
PROFESSIONAL SURVEYOR
NUMBER 49352

I HEREBY CERTIFY THAT I HAVE SURVEYED AND MAPPED THE LAND ABOVE PLATTED AND/OR DESCRIBED ON JULY 8 2008, AND THAT THE RATIO OF CLOSURE ON THE UNADJUSTED FIELD OBSERVATIONS OF SUCH SURVEY WAS 1/5000.

CLIENT GENERAL MOTORS	JOB: 05000618	CAD: 05000618SU-08
SKETCH AND DESCRIPTION OF A 8.43 ACRE PARCEL OF LAND -TERMINATED TYPE III LANDFILL AREA 1 LOCATED IN	DR. NLW	CH. MDE
	BOOK MA144-9	PG. 63-65
	SHEET 4 OF 4	DATE: 07-18-08
SECTIONS 2, 3, 34 & 35, T11&12 N, R4E CITY OF SAGINAW SAGINAW COUNTY	FILE CODE: SU-08	
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LEGEND

O_F	FOUND IRON PIPE
O_S	SET IRON PIPE
$\odot_F$	FOUND CONCRETE MONUMENT
POB	PLACE OF BEGINNING
R/W	RIGHT-OF-WAY

BEARING BASIS: NAD 83 MI SOUTH 1994 ADJUSTMENT

PROFESSIONAL SURVEYOR NUMBER 49352

I HEREBY CERTIFY THAT I HAVE SURVEYED AND MAPPED THE LAND ABOVE PLATTED AND/OR DESCRIBED ON JULY 8 2008, AND THAT THE RATIO OF CLOSURE ON THE UNADJUSTED FIELD OBSERVATIONS OF SUCH SURVEY WAS 1/5000.

CLIENT GENERAL MOTORS

SKETCH AND DESCRIPTION OF A 6.54 ACRE PARCEL OF LAND -- TERMINATED TYPE III LANDFILL AREA 2 LOCATED IN

SECTIONS 2, 3, 34 & 35, T 11&12 N, R4E
SAGINAW TOWNSHIP
SAGINAW COUNTY

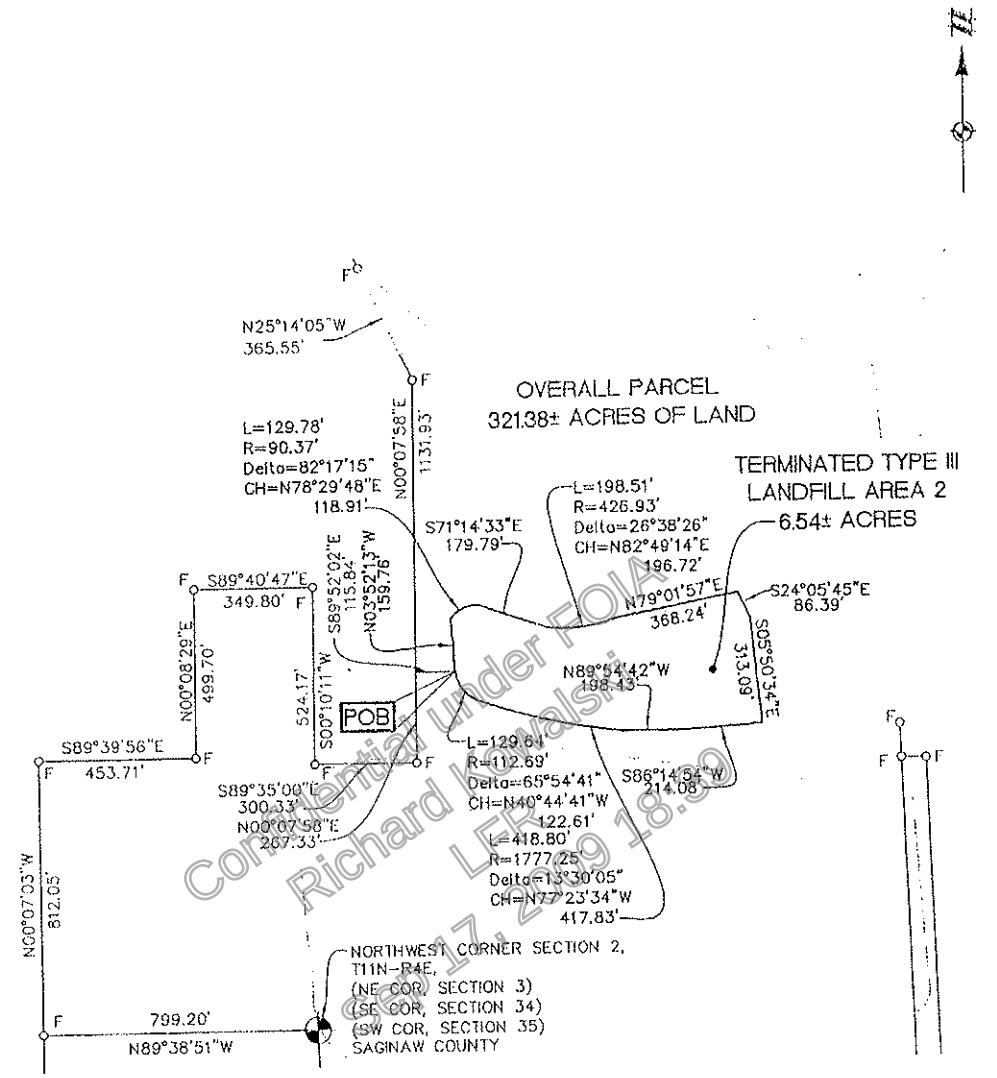
SCALE: 1 INCH =800 FEET (0 400 800)

JOB: 05000618 | CAD: 05000618SU-12
DR: NLW | CR: MDE
BOOK: MA144-9 | PG: 63-65
SHEET 1 OF 4 | DATE: 07-18-08
FILE CODE: SU-12

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LEGEND

O_F	FOUND IRON PIPE
O_S	SET IRON PIPE
$◎_F$	FOUND CONCRETE MONUMENT
POB	PLACE OF BEGINNING
R/W	RIGHT-OF-WAY

BEARING BASIS: NAD 83
MI SOUTH
1994 ADJUSTMENT

PROFESSIONAL SURVEYOR
NUMBER 49352

I HEREBY CERTIFY THAT I HAVE SURVEYED AND MAPPED THE LAND ABOVE PLATTED AND/OR DESCRIBED ON JULY 8 2008, AND THAT THE RATIO OF CLOSURE ON THE UNADJUSTED FIELD OBSERVATIONS OF SUCH SURVEY WAS 1/5000.

CLIENT GENERAL MOTORS

SKETCH AND DESCRIPTION OF A
6.54 ACRE PARCEL
OF LAND - TERMINATED TYPE III
LANDFILL AREA 2
LOCATED IN
SECTIONS 2, 3, 34 & 35, T 11&12 N, R4E
CITY OF SAGINAW
SAGINAW COUNTY

SCALE: 1 INCH =400 FEET (0, 200, 400)

JOB: 05000618
DR. NLW
BOOK MA144-9
SHEET 3 OF 4
FILE CODE: SU-12
CAD 05000618SU-12
CH. MDE
PG. 63-65
DATE: 07-18-08

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DESCRIPTION OF A 6.54 ACRE PARCEL OF LAND

Commencing at the Northwest Corner of Section 2, being part of Sections 34 & 35, T12N, R4E, and part of Sections 2 & 3, T11N, R4E, City of Saginaw, Saginaw County, Michigan; thence N89°38'51"W 799.20 feet along the North line of said Section 2; thence N00°07'03"W 812.05 feet; thence S89°39'56"E 453.71 feet; thence N00°08'29"E 499.70 feet; thence S89°40'47"E 349.80 feet; thence S00°10'11"W 524.17 feet; thence S89°52'02"E 115.84 S89°35'00"E 300.33 feet; thence N00°07'58"E 267.33 feet; thence S89°52'02"E 115.84 feet for a PLACE OF BEGINNING; thence N03°52'13"W 159.76 feet; thence 129.78 feet along the arc of a 90.37 foot radius circular curve to the right, with a central angle of 82°17'15", having a chord which bears N78°29'48"E 118.91 feet; thence S71°14'33"E 179.79 feet; thence 198.51 feet along the arc of a 426.93 foot radius circular curve to the left, with a central angle of 26°38'26", having a chord which bears N82°49'14"E 196.72 feet; thence N79°01'57"E 368.24 feet; thence S24°05'45"E 86.39 feet; thence S05°50'34"E 313.09 feet; thence S86°14'54"W 214.08 feet; thence N89°54'42"W 198.43 feet; thence 418.80 feet along the arc of a 1777.25 foot radius circular curve to the right, with a central angle of 13°30'05", having a chord which bears N77°23'34"W 417.83 feet; thence 129.64 feet along the arc of a 112.69 foot radius circular curve to the right, with a central angle of 65°54'41", having a chord which bears N40°44'41"W 122.61 feet to the Place of Beginning. Containing 6.54 acres of land, more or less, subject to easements, conditions, restrictions and exceptions of record, if any.

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BEARING BASIS: NAD 83
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1994 ADJUSTMENT

PROFESSIONAL SURVEYOR
NUMBER 49352

I HEREBY CERTIFY THAT I HAVE SURVEYED AND MAPPED THE LAND ABOVE PLATTED AND/OR DESCRIBED ON JULY 8 2008, AND THAT THE RATIO OF CLOSURE ON THE UNADJUSTED FIELD OBSERVATIONS OF SUCH SURVEY WAS 1/5000.

CLIENT GENERAL MOTORS	JOB: 05000618	CAD: 05000618SU-12
SKETCH AND DESCRIPTION OF A 6.54 ACRE PARCEL OF LAND – TERMINATED TYPE III LANDFILL AREA 2 LOCATED IN	DR. NLW	CH. MDE
	BOOK MA144-9	PG. 63-65
	SHEET 4 OF 4	DATE: 07-18-08
	FILE CODE: SU-12	
SECTIONS 2, 3, 34 & 35, T 11&12 N, R4E CITY OF SAGINAW SAGINAW COUNTY	ATWELL-HICKS www.atwell-hicks.com 866 850 4200	
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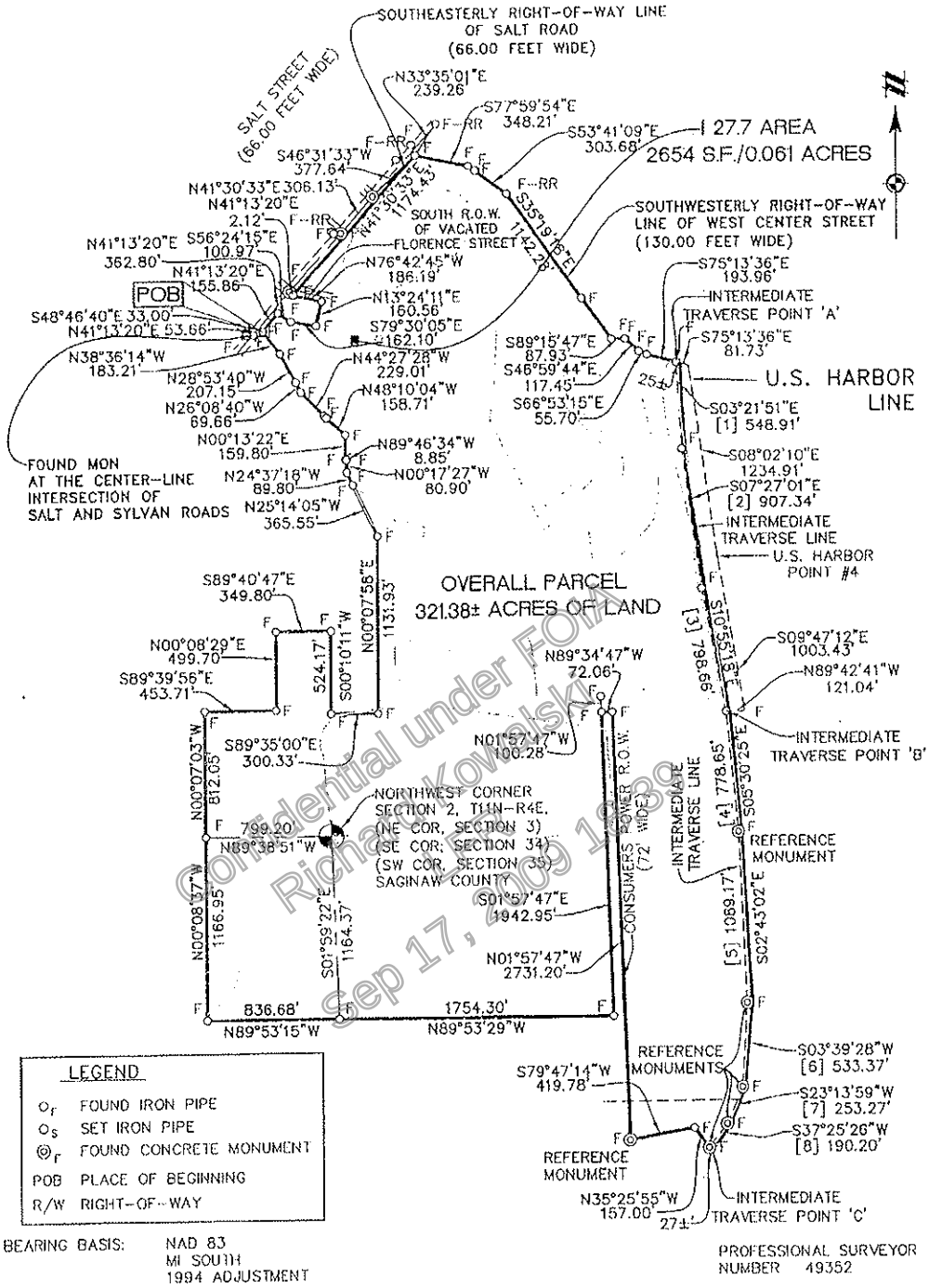
EXHIBIT 9

I27.7 AREA SURVEY AND LEGAL DESCRIPTION

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LEGEND

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O_S	SET IRON PIPE
$\circledcirc_F$	FOUND CONCRETE MONUMENT
POB	PLACE OF BEGINNING
R/W	RIGHT-OF-WAY

BEARING BASIS: NAD 83
MI SOUTH
1994 ADJUSTMENT

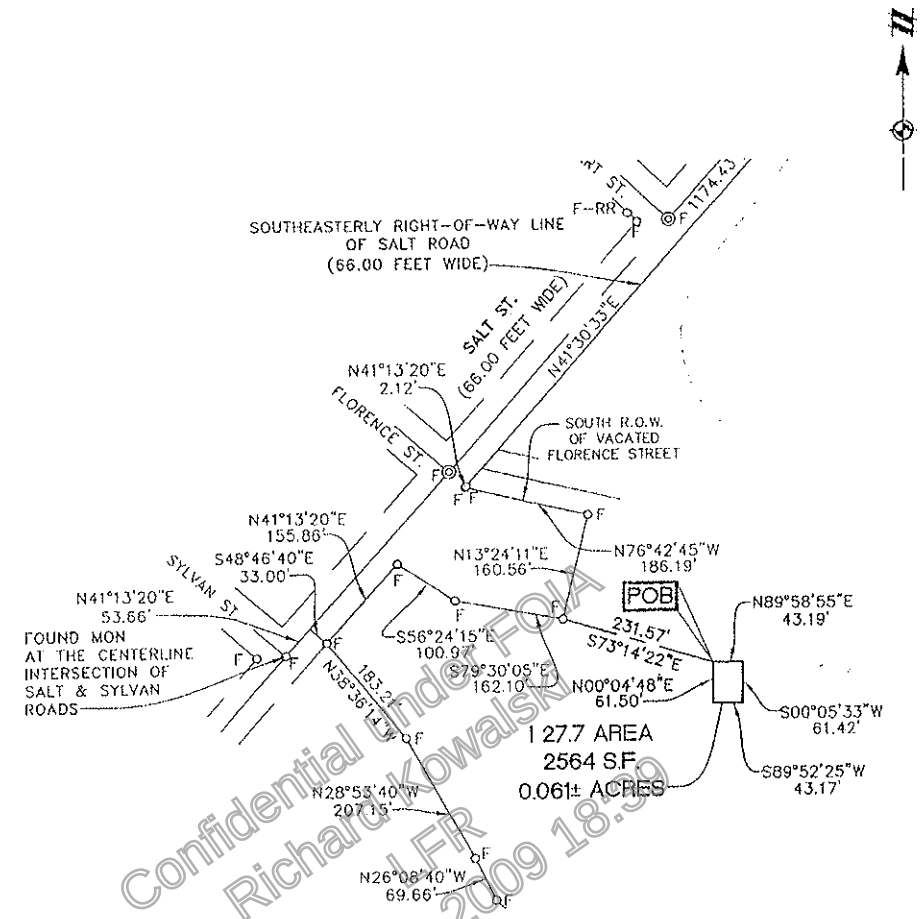
PROFESSIONAL SURVEYOR
NUMBER 49352

I HEREBY CERTIFY THAT I HAVE SURVEYED AND MAPPED THE LAND ABOVE PLATTED AND/OR DESCRIBED ON JULY 8 2008, AND THAT THE RATIO OF CLOSURE ON THE UNADJUSTED FIELD OBSERVATIONS OF SUCH SURVEY WAS 1/5000.

CLIENT GENERAL MOTORS	JOB: 05000618	CAD 05000618SU-02
SKETCH AND DESCRIPTION OF A 0.061 ACRE PARCEL OF LAND- I 27.7 AREA LOCATED IN	DR: NLW	CH: MDE
	BOOK: MA144-9	PG: 63-65
	SHEET 1 OF 4	DATE: 07-18-08
SECTIONS 2, 3, 34 & 35, T11&12N, R4E CITY OF SAGINAW SAGINAW COUNTY	FILE CODE: SU-02	
SCALE: 1 INCH =800 FEET (0 400 800)	ATWELL-HICKS www.atwell-hicks.com 866 850 4200	
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LEGEND

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O_S	SET IRON PIPE
$\odot_F$	FOUND CONCRETE MONUMENT
POB	PLACE OF BEGINNING
R/W	RIGHT-OF-WAY

BEARING BASIS: NAD 83
MI SOUTH
1994 ADJUSTMENT

PROFESSIONAL SURVEYOR
NUMBER 49352

I HEREBY CERTIFY THAT I HAVE SURVEYED AND MAPPED THE LAND ABOVE PLATTED AND/OR DESCRIBED ON JULY 8 2008, AND THAT THE RATIO OF CLOSURE ON THE UNADJUSTED FIELD OBSERVATIONS OF SUCH SURVEY WAS 1/5000.

CLIENT GENERAL MOTORS

SKETCH AND DESCRIPTION OF A 0.061 ACRE PARCEL OF LAND— I 27.7 AREA LOCATED IN

SECTIONS 2, 3, 34 & 35, T11&12N, R4
CITY OF SAGINAW
SAGINAW COUNTY

SCALE: 1 INCH = 200 FEET (0 100 200)

JOB: 05000618 | CAD: 05000618SU-02
DR. NLW | CH. MDE
BOOK MA144-9 | PG. 63-65
SHEET 3 OF 4 | DATE: 07-18-08
FILE CODE: SU-02

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DESCRIPTION OF A 0.061 ACRE PARCEL OF LAND

Commencing at a found monument at the center–line intersections of Salt Road (66.00 feet wide) and Sylvan Road (60.00 feet wide) being part of Section 35, T12N, R4E, City of Saginaw, Saginaw County, Michigan; thence N41°13'20"E 53.66 feet along the center–line of said Salt Road; thence S48°46'40"E 33.00 feet perpendicular to said center–line of said Salt Road; thence N41°13'20"E 155.86 feet along the Southeasterly Right–of–Way line of said Salt Road; thence S56°24'15"E 100.97 feet; thence S79°30'05"E 162.10 feet; thence S73°14'22"E 231.57 feet for a **PLACE OF BEGINNING** thence N89°58'55"E 43.19 feet; thence S00°05'33"W 61.42 feet; thence S89°52'25"W 43.17 feet; thence N00°04'48"E 61.50 feet to the Place of Beginning Containing 2564 square feet (0.061 acres) of land, more or less, subject to easements, conditions, restrictions and exceptions of record, if any.

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BEARING BASIS: NAD 83
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1994 ADJUSTMENT

PROFESSIONAL SURVEYOR
NUMBER 49352

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CLIENT GENERAL MOTORS	JOB: 05000618	CAD 05000618SU–02
SKETCH AND DESCRIPTION OF A 0.061 ACRE PARCEL OF LAND– I 27.7 AREA LOCATED IN	DR. NLW	CH. MDE
	BOOK MA144–9	PG. 63–65
	SHEET 4 OF 4	DATE: 07–18–08
SECTIONS 2, 3, 34 & 35, T11&12 N, R4 CITY OF SAGINAW SAGINAW COUNTY	FILE CODE: SU–02	
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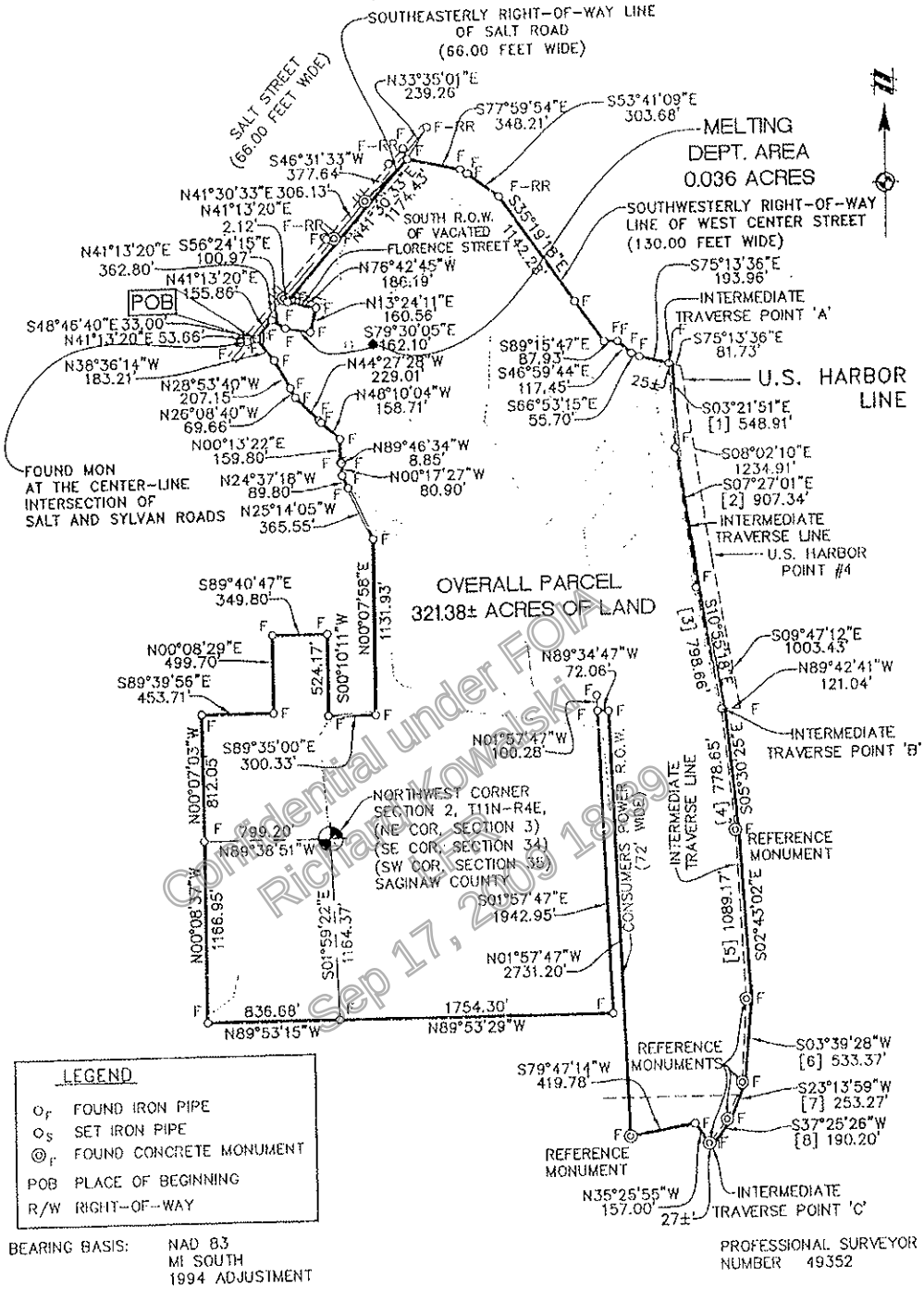
EXHIBIT 10

MELTING DEPARTMENT AREA SURVEY AND LEGAL DESCRIPTION

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Sep 17, 2009 18:39

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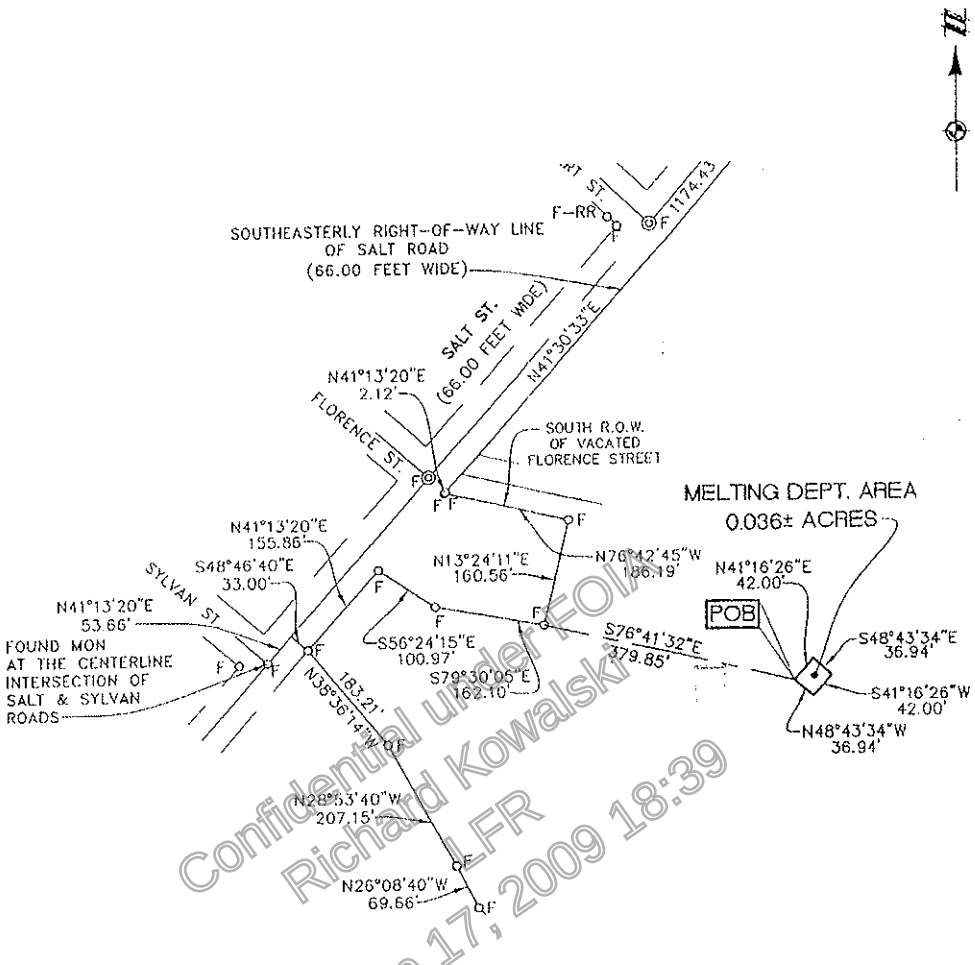


I HEREBY CERTIFY THAT I HAVE SURVEYED AND MAPPED THE LAND ABOVE PLATTED AND/OR DESCRIBED ON JULY 8 2008, AND THAT THE RATIO OF CLOSURE ON THE UNADJUSTED FIELD OBSERVATIONS OF SUCH SURVEY WAS 1/5000.

CLIENT GENERAL MOTORS	JOB: 05000618	CAD: 05000618SU-03
SKETCH AND DESCRIPTION OF A 0.036 ACRE PARCEL OF LAND-MELTING DEPT. AREA LOCATED IN	DR. NLW	CH. MDE
	BOOK MA144-9	PG. 63-65
SECTIONS 2, 3, 34 & 35, T11&12N, R4E CITY OF SAGINAW SAGINAW COUNTY	SHEET 1 OF 4	DATE: 07-18-08
	FILE CODE: SU-03	
SCALE: 1 INCH =800 FEET (0 400 800)	ATWELL-HICKS www.atwell-hicks.com 866 860 4200 ARIZONA FLORIDA ILLINOIS MICHIGAN OHIO PENNSYLVANIA TENNESSEE Engineering Surveying Planning Environmental Ecological Water Resources	

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Sep 17, 2009 18:39

LEGEND	
O_F	FOUND IRON PIPE
O_S	SET IRON PIPE
$\odot_F$	FOUND CONCRETE MONUMENT
POB	PLACE OF BEGINNING
R/W	RIGHT-OF-WAY

BEARING BASIS: NAD 83
MI SOUTH
1994 ADJUSTMENT

PROFESSIONAL SURVEYOR
NUMBER 49352

I HEREBY CERTIFY THAT I HAVE SURVEYED AND MAPPED THE LAND ABOVE PLATTED AND/OR DESCRIBED ON JULY 8 2008, AND THAT THE RATIO OF CLOSURE ON THE UNADJUSTED FIELD OBSERVATIONS OF SUCH SURVEY WAS 1/5000.

CLIENT: GENERAL MOTORS

SKETCH AND DESCRIPTION OF A 0.036 ACRE PARCEL OF LAND-MELTING DEPT. AREA LOCATED IN

SECTIONS 2, 3, 34 & 35, T11&12 N, R4E
CITY OF SAGINAW
SAGINAW COUNTY

SCALE: 1 INCH =200 FEET (0 100 200)

JOB: 05000618
CAD: 05000618SU-03
DR: NLW
CH: MDE
BOOK: MA144-9
PG: 63-65
SHEET 3 OF 4
DATE: 07-18-08
FILE CODE: SU-03

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DESCRIPTION OF A 0.61 ACRE PARCEL OF LAND

Commencing at a found monument at the center-line intersections of Salt Road (66.00 feet wide) and Sylvan Road (60.00 feet wide) being part of Section 35, T12N, R4E, City of Saginaw, Saginaw County, Michigan; thence N41°13'20"E 53.66 feet along the center-line of said Salt Road; thence S48°46'40"E 33.00 feet perpendicular to said center-line of said Salt Road; thence N41°13'20"E 155.86 feet along the Southeasterly Right-of-Way line of said Salt Road; thence S56°24'15"E 100.97 feet; thence S79°30'05"E 162.10 feet; thence S76°41'32"E 379.85 feet for a PLACE OF BEGINNING thence N41°16'26"E 42.00 feet; thence S48°43'34"E 36.94 feet; thence S41°16'26"W 42.00 feet; thence N48°43'34"W 36.94 feet to the Place of Beginning Containing 1,551 square feet (0.036 acres) of land, more or less, subject to easements, conditions, restrictions and exceptions of record, if any.

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BEARING BASIS: NAD 83
MI SOUTH
1994 ADJUSTMENT

PROFESSIONAL SURVEYOR
NUMBER 49352

I HEREBY CERTIFY THAT I HAVE SURVEYED AND MAPPED THE LAND ABOVE PLATTED AND/OR DESCRIBED ON JULY 8 2008, AND THAT THE RATIO OF CLOSURE ON THE UNADJUSTED FIELD OBSERVATIONS OF SUCH SURVEY WAS 1/5000.

CLIENT GENERAL MOTORS	JOB: 05000618	CAD: 05000618SU-03
SKETCH AND DESCRIPTION OF A 0.036 ACRE PARCEL OF LAND-MELTING DEPT. AREA LOCATED IN	DR: NLW	CK: MDE
	BOOK MA144-9	PG: 63-65
	SHEET 4 OF 4	DATE: 07-18-08
SECTIONS 2, 3, 34 & 35, T11&12 N, R4E CITY OF SAGINAW SAGINAW COUNTY	FILE CODE: SU-03	
	ATWELL-HICKS www.atwell-hicks.com 866 850 4200	
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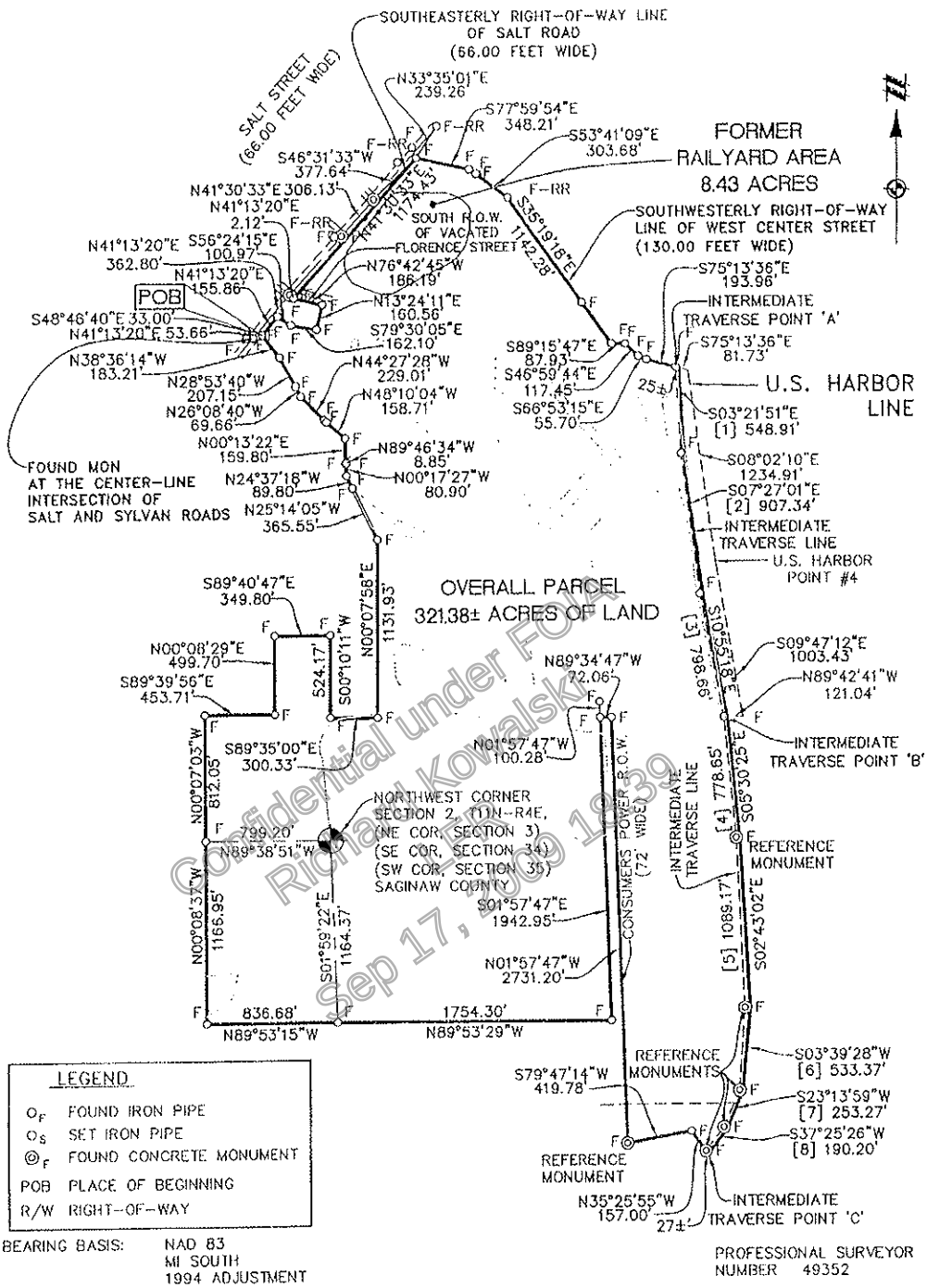
EXHIBIT 11

RAILYARD AREA SURVEY AND LEGAL DESCRIPTION

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Richard Kowalski
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Sep 17, 2009 18:39



LEGEND

O_F	FOUND IRON PIPE
O_S	SET IRON PIPE
$\odot_F$	FOUND CONCRETE MONUMENT
POB	PLACE OF BEGINNING
R/W	RIGHT-OF-WAY

BEARING BASIS: NAD 83
MI SOUTH
1994 ADJUSTMENT

PROFESSIONAL SURVEYOR
NUMBER 49352

I HEREBY CERTIFY THAT I HAVE SURVEYED AND MAPPED THE LAND ABOVE PLATTED AND/OR DESCRIBED ON JULY 8 2008, AND THAT THE RATIO OF CLOSURE ON THE UNADJUSTED FIELD OBSERVATIONS OF SUCH SURVEY WAS 1/5000.

CLIENT GENERAL MOTORS

SKETCH AND DESCRIPTION OF A 8.43 ACRE PARCEL OF LAND-FORMER RAILYARD AREA LOCATED IN

SECTIONS 2, 3, 34 & 35, T11&12 N, R4E
CITY OF SAGINAW
SAGINAW COUNTY

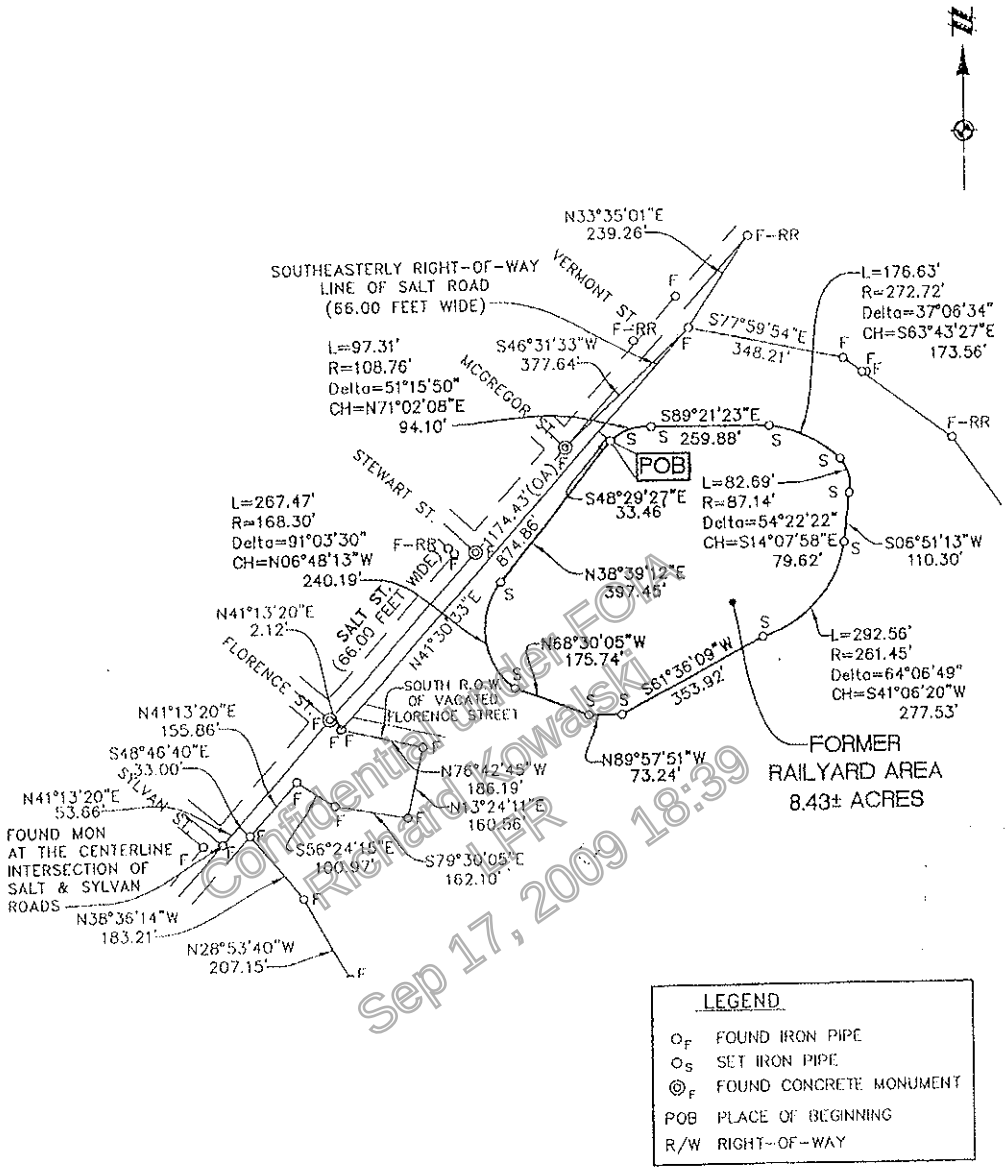
SCALE: 1 INCH =800 FEET (0 400 800)

JOB: 05000618 | CAD: 05000618SU-01
DR. NLW | CH. MDE
BOOK MA144-9 | PG. 63-65
SHEET 1 OF 4 | DATE: 07-15-08
FILE CODE: SU-01

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BEARING BASIS: NAD 83
MI SOUTH
1994 ADJUSTMENT

PROFESSIONAL SURVEYOR
NUMBER 49352

I HEREBY CERTIFY THAT I HAVE SURVEYED AND MAPPED THE LAND ABOVE PLATTED AND/OR DESCRIBED ON JULY 8 2008, AND THAT THE RATIO OF CLOSURE ON THE UNADJUSTED FIELD OBSERVATIONS OF SUCH SURVEY WAS 1/5000.

CLIENT: GENERAL MOTORS	JOB: 05000618	CAD: 05000618SU-01
SKETCH AND DESCRIPTION OF A 8.43 ACRE PARCEL OF LAND-FORMER RAILYARD AREA LOCATED IN	DR: NLW	CH: MDE
	BOOK: MA144-9	PG: 63-65
SECTIONS 2, 3, 34 & 35, T11&12 N, R4E CITY OF SAGINAW SAGINAW COUNTY	SHEET: 3 OF 4	DATE: 07-15-08
	FILE CODE: SU-01	
SCALE: 1 INCH = 300 FEET (0 150 300)	ATWELL-HICKS www.atwell-hicks.com 866 850 4200	
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DESCRIPTION OF A 8.43 ACRE PARCEL OF LAND

Commencing at a found monument at the center-line intersections of Salt Road (66.00 feet wide) and Sylvan Road (60.00 feet wide) being part of Section 35, T12N, R4E, City of Saginaw, Saginaw County, Michigan; thence N41°13'20"E 53.66 feet along the center-line of said Salt Road; thence S48°46'40"E 33.00 feet perpendicular to said center-line of said Salt Road; thence N41°13'20"E 155.86 feet along the Southeasterly Right-of-Way line of said Salt Road; thence S56°24'15"E 100.97 feet; thence S79°30'05"E 162.10 feet; thence N13°24'11"E 160.56 feet; thence along the Southwesterly Right-of-Way line of vacated relocated Florence Street (66.00 feet wide) as recorded thereof in Liber 1269, Page 348 of Saginaw County Records, N76°42'45"W 186.19 feet to the said Southeasterly Right-of-Way line of said Salt Road, said point being S44°49'19"E 33.08 feet from a found monument at the center-line of said Salt Road; thence N41°13'20" E 2.12 feet along the Southeasterly Line of said Salt Road; thence N41°30'33"E 874.86 feet continuing along said Southeasterly Right-of-Way line of said Salt Road; thence S48°29'27"E 33.46 feet for a **PLACE OF BEGINNING** thence 97.31 feet along the arc of a 108.76 foot radius circular curve to the right, with a central angle of 51°15'50", having a chord which bears N71°02'08"E 94.10 feet; thence S89°21'23"E 259.88 feet; thence 176.64 feet along the arc of a 272.72 foot radius circular curve to the right, with a central angle of 37°06'34", having a chord which bears S63°43'27"E 173.56 feet; thence 82.69 feet along the arc of a 87.14 foot radius circular curve to the right, with a central angle of 54°22'22", having a chord which bears S14°07'58"E 79.62 feet; thence S06°51'13"W 110.30 feet; thence 292.56 feet along the arc of a 261.45 foot radius circular curve to the right, with a central angle of 64°06'49", having a chord which bears S41°06'20"W 277.53 feet; thence S61°36'09"W 353.92 feet; thence N89°57'51"W 73.24 feet; thence N68°30'05"W 175.74 feet; thence 267.47 feet along the arc of a 168.30 foot radius circular curve to the right, with a central angle of 91°03'30", having a chord which bears N06°48'13"W 240.19 feet; thence N38°39'12"E 397.45 feet to the Place of Beginning
Containing 8.43 acres of land, more or less, subject to easements, conditions, restrictions and exceptions of record, if any.

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BEARING BASIS: NAD 83
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1994 ADJUSTMENT

PROFESSIONAL SURVEYOR
NUMBER 49352

I HEREBY CERTIFY THAT I HAVE SURVEYED AND MAPPED THE LAND ABOVE PLATTED AND/OR DESCRIBED ON JULY 8 2008, AND THAT THE RATIO OF CLOSURE ON THE UNADJUSTED FIELD OBSERVATIONS OF SUCH SURVEY WAS 1/5000.

CLIENT GENERAL MOTORS	JOB: 05000618	CAD 05000618SU-01
	DR. NLW	CK. MDE
SKETCH AND DESCRIPTION OF A 8.43 ACRE PARCEL OF LAND-FORMER RAILYARD AREA LOCATED IN	BOOK MA144-9	PG. 63-65
	SHEET 4 OF 4	DATE: 07-15-08
SECTIONS 2, 3, 34 & 35, T11&12 N, R4E CITY OF SAGINAW SAGINAW COUNTY	FILE CODE: SU-01	
	ATWELL-HICKS www.atwell-hicks.com 866 850 4200	
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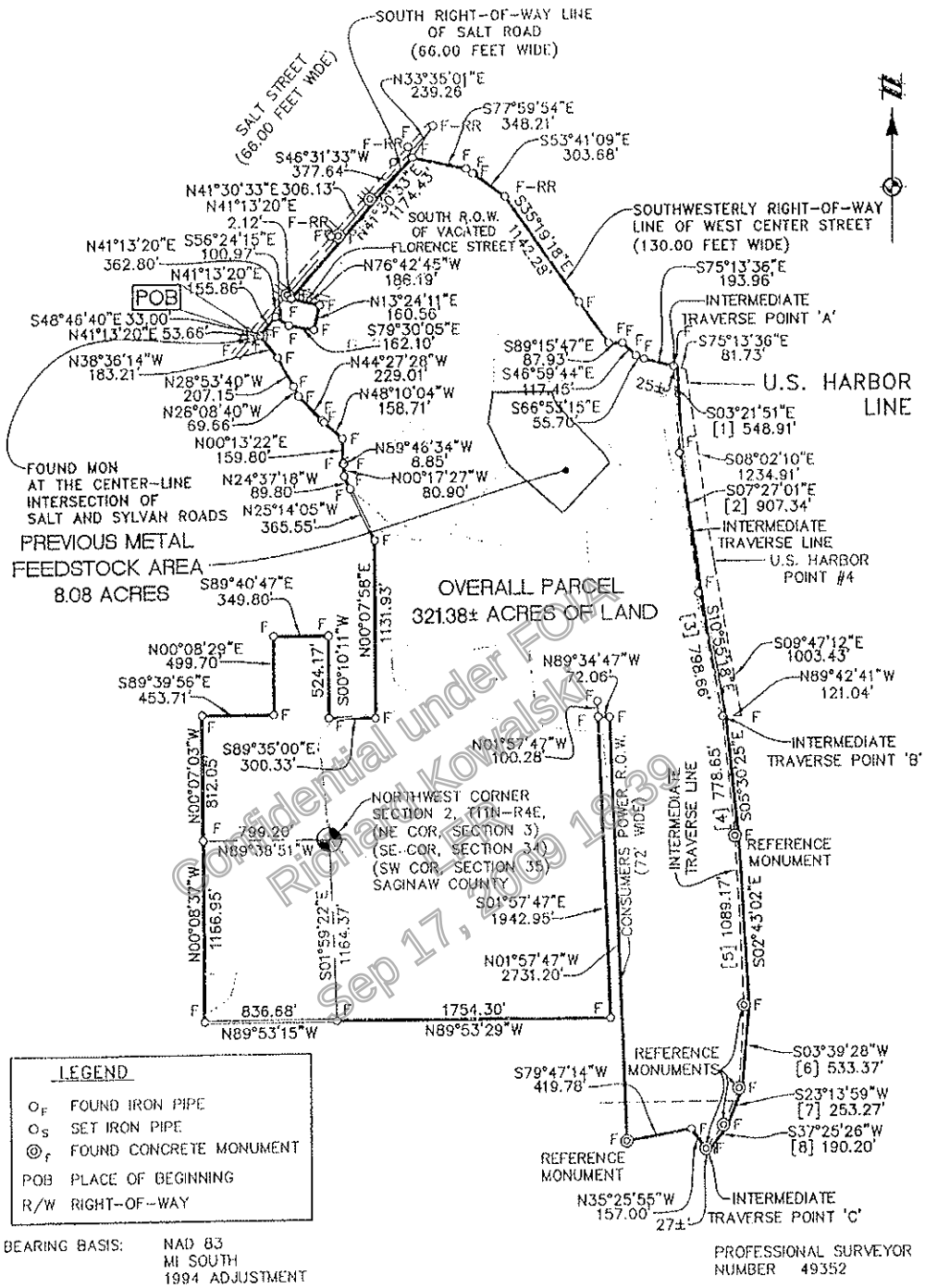
EXHIBIT 12

PREVIOUS METAL FEEDSTOCK AREA SURVEY AND LEGAL DESCRIPTION

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LEGEND

O_F	FOUND IRON PIPE
O_S	SET IRON PIPE
$\circledcirc_f$	FOUND CONCRETE MONUMENT
POB	PLACE OF BEGINNING
R/W	RIGHT-OF-WAY

BEARING BASIS: NAD 83
MI SOUTH
1994 ADJUSTMENT

PROFESSIONAL SURVEYOR
NUMBER 49352

I HEREBY CERTIFY THAT I HAVE SURVEYED AND MAPPED THE LAND ABOVE PLATTED AND/OR DESCRIBED ON JULY 8 2008, AND THAT THE RATIO OF CLOSURE ON THE UNADJUSTED FIELD OBSERVATIONS OF SUCH SURVEY WAS 1/5000.

CLIENT GENERAL MOTORS

SKETCH AND DESCRIPTION OF A 8.08 ACRE PARCEL OF LAND-PREVIOUS METAL FEEDSTOCK AREA LOCATED IN

SECTIONS 2, 3, 34 & 35, T11&12 N, R4E
CITY OF SAGINAW
SAGINAW COUNTY

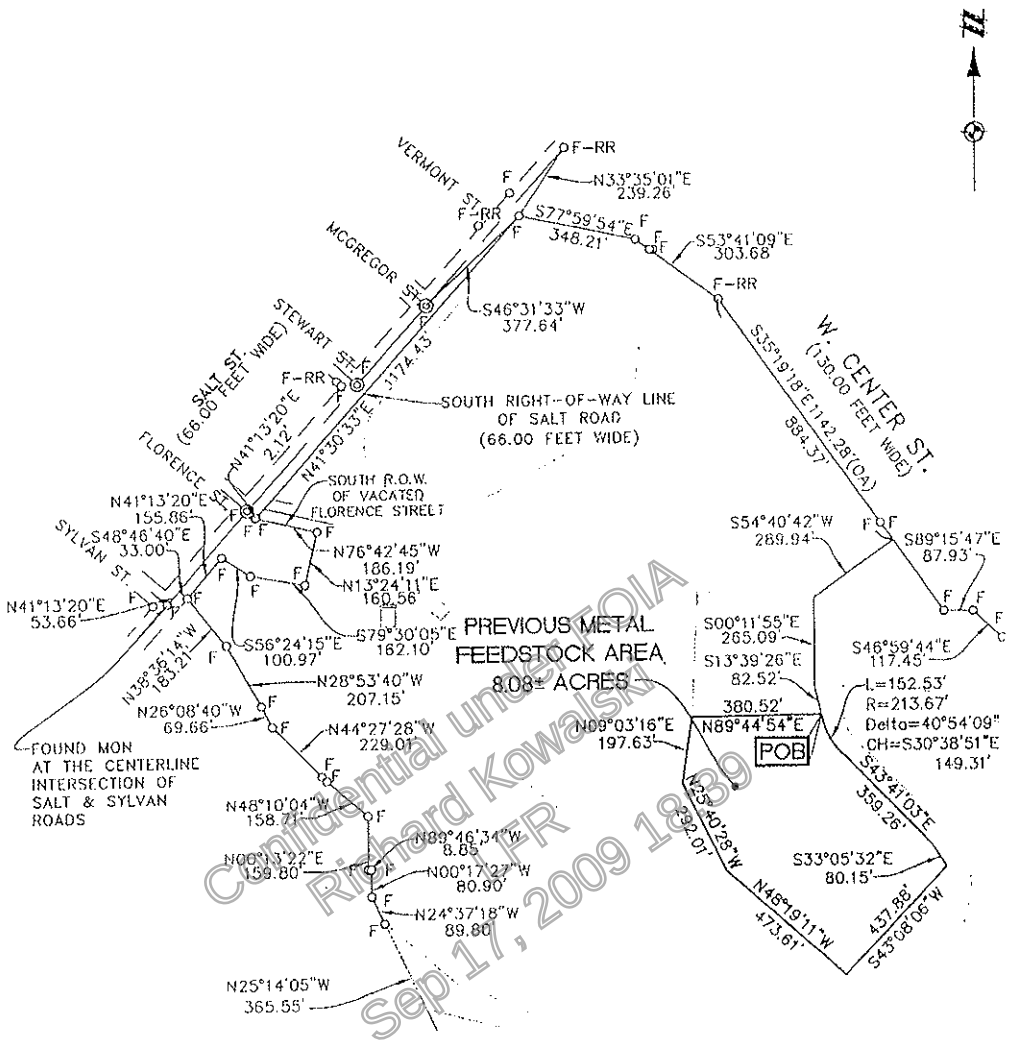
SCALE: 1 INCH =800 FEET
0 400 800

JOB: 05000618
CAD: 05000618SU-05
DR: NLW
CH: MDE
BOOK MA144-9
PG: 63-65
SHEET 1 OF 4
DATE: 07-18-08
FILE CODE: SU-05

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LEGEND

O_f	FOUND IRON PIPE
O_s	SET IRON PIPE
$\odot_f$	FOUND CONCRETE MONUMENT
POB	PLACE OF BEGINNING
R/W	RIGHT-OF-WAY

BEARING BASIS: NAD 83
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1994 ADJUSTMENT

PROFESSIONAL SURVEYOR
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CLIENT GENERAL MOTORS

SKETCH AND DESCRIPTION OF A 8.08 ACRE PARCEL OF LAND-PREVIOUS METAL FEEDSTOCK AREA LOCATED IN SECTIONS 2, 3, 34 & 35, T11&12 N, R4E CITY OF SAGINAW SAGINAW COUNTY

SCALE: 1 INCH = 400 FEET (0 200 400)

JOB: 05000618 | CAD: 05000618SU-05
DR: NLW | CH: MDE
BOOK: MA144-9 | PG: 63-65
SHEET: 3 OF 4 | DATE: 07-18-08
FILE CODE: SU-05

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Sep 17, 2009 18:39

DESCRIPTION OF A 8.08 ACRE PARCEL OF LAND

Commencing at a found monument at the center--line intersections of Salt Road (66.00 feet wide) and Sylvan Road (60.00 feet wide) being part of Sections 34 & 35, T12N, R4E, and part of Sections 2 & 3, T11N, R4E, City of Saginaw, Saginaw County, Michigan; thence N41°13'20"E 53.66 feet along the center-line of said Salt Road; thence S48°46'40"E 33.00 feet perpendicular to said center-line of said Salt Road; thence N41°13'20"E 155.86 feet along the Southeasterly Right-of-Way line of said Salt Road; thence S56°24'15"E 100.97 feet; thence S79°30'05"E 162.10 feet; thence N13°24'11"E 160.56 feet; thence along the Southwesterly Right-of-Way line of vacated relocated Florence Street (66.00 feet wide) as recorded thereof in Liber 1269, Page 348 of Saginaw County Records, N76°42'45"W 186.19 feet to the said Southeasterly Right-of-Way line of said Salt Road, said point being S44°49'19"E 33.08 feet from a found monument at the center-line of said Salt Road; thence N41°13'20"E 2.12 feet along the Southeasterly Line of said Salt Road; thence N41°30'33"E 1174.43 feet continuing along said Southeasterly Right-of-Way line of said Salt Road to the Southwesterly Right-of-Way Line of West Center Street (130.00 feet wide) for the following three (3) courses: [1]S77°59'54"E 348.21 feet; [2]S53°41'09"E 303.68 feet, and [3]S35°19'18"E 884.37 feet; thence S54°40'42"W 289.94 feet; thence S00°11'55"E 265.09 feet; thence S13°39'26"E 82.52 feet for a PLACE OF BEGINNING; thence 152.53 feet along a 213.67 foot radius non-tangential circular curve to the left, with a central angle of 40°54'09", having a chord which bears S30°38'51"E 149.31 feet; thence S43°41'03"E 359.26 feet; thence S33°05'32"E 80.15 feet; thence S43°08'06"W 437.88 feet; thence N48°19'11"W 473.61 feet; thence N25°40'28"W 292.01 feet; thence N09°03'16"E 197.63 feet; thence N89°44'54"E 380.52 feet to the Place of Beginning. Containing 8.08 acres of land, more or less, subject to easements, conditions, restrictions and exceptions of record, if any.

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1994 ADJUSTMENT

PROFESSIONAL SURVEYOR
NUMBER 49352

I HEREBY CERTIFY THAT I HAVE SURVEYED AND MAPPED THE LAND ABOVE PLATTED AND/OR DESCRIBED ON JULY 8 2008, AND THAT THE RATIO OF CLOSURE ON THE UNADJUSTED FIELD OBSERVATIONS OF SUCH SURVEY WAS 1/5000.

CLIENT GENERAL MOTORS	JOB: 05000618	CAD: 05000618SU--05
SKETCH AND DESCRIPTION OF A 8.08 ACRE PARCEL OF LAND--PREVIOUS METAL FEEDSTOCK AREA LOCATED IN	DR: NLW	CH: MDE
	BOOK: MA144--9	PG: 63--65
	SHEET: 4 OF 4	DATE: 07--18--08
SECTIONS 2, 3, 34 & 35, T11&12 N, R4E CITY OF SAGINAW SAGINAW COUNTY	FILE CODE: SU--05	
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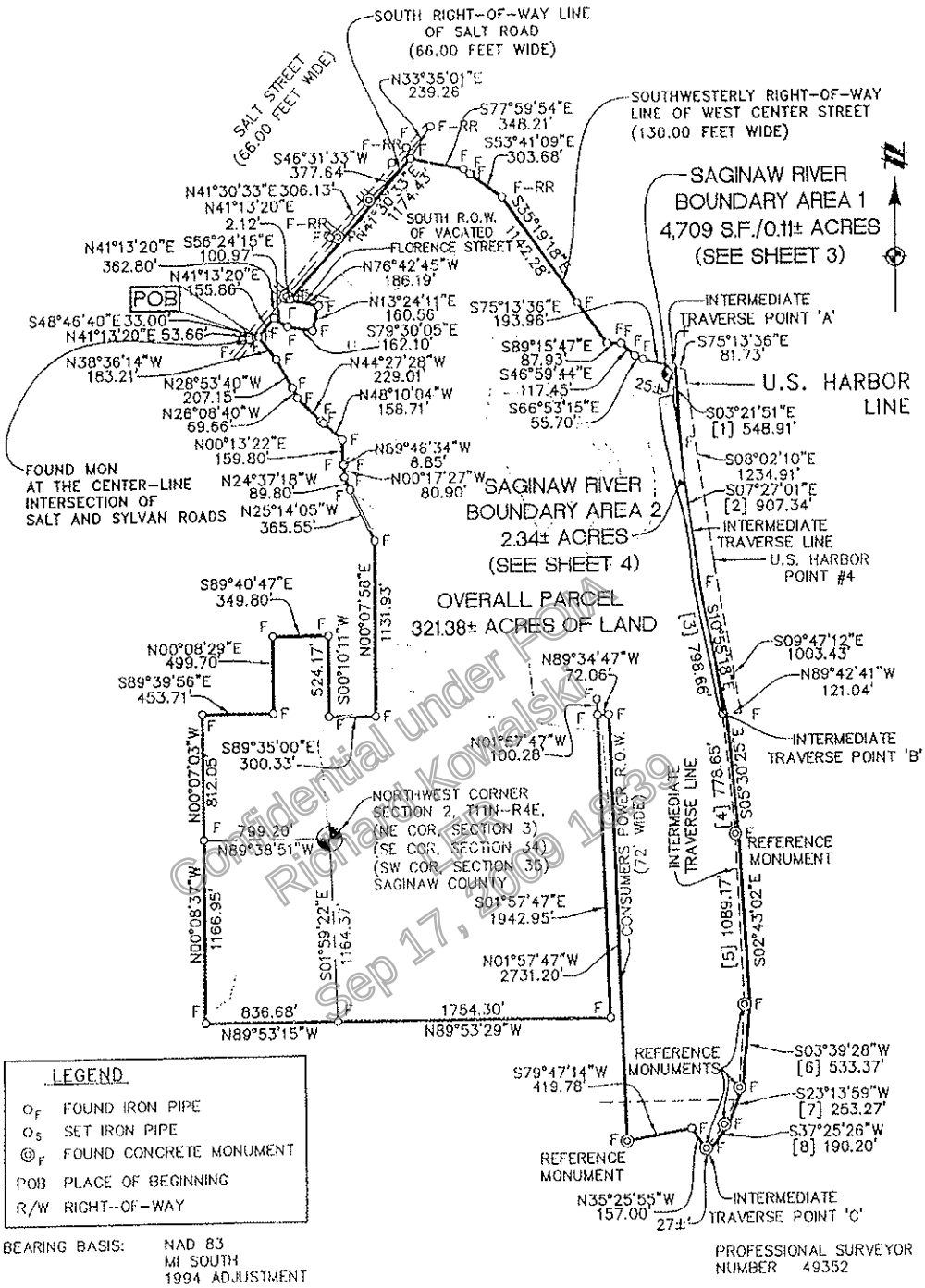
EXHIBIT 13

SAGINAW RIVER BOUNDARY AREA SURVEY AND LEGAL DESCRIPTION

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Richard Kowalski
LFR
Sep 17, 2009 18:39



LEGEND

O_F	FOUND IRON PIPE
O_S	SET IRON PIPE
$\odot_F$	FOUND CONCRETE MONUMENT
POB	PLACE OF BEGINNING
R/W	RIGHT--OF-WAY

BEARING BASIS: NAD 83
MI SOUTH
1994 ADJUSTMENT

PROFESSIONAL SURVEYOR
NUMBER 49352

I HEREBY CERTIFY THAT I HAVE SURVEYED AND MAPPED THE LAND ABOVE PLATTED AND/OR DESCRIBED ON JULY 8 2008, AND THAT THE RATIO OF CLOSURE ON THE UNADJUSTED FIELD OBSERVATIONS OF SUCH SURVEY WAS 1/5000.

CLIENT GENERAL MOTORS

SKETCH AND DESCRIPTION OF 2 PARCELS OF LAND KNOWN AS THE SAGINAW RIVER BOUNDARY AREA LOCATED IN SECTIONS 2, 3, 34 & 35, T 11&12 N, R4E CITY OF SAGINAW SAGINAW COUNTY

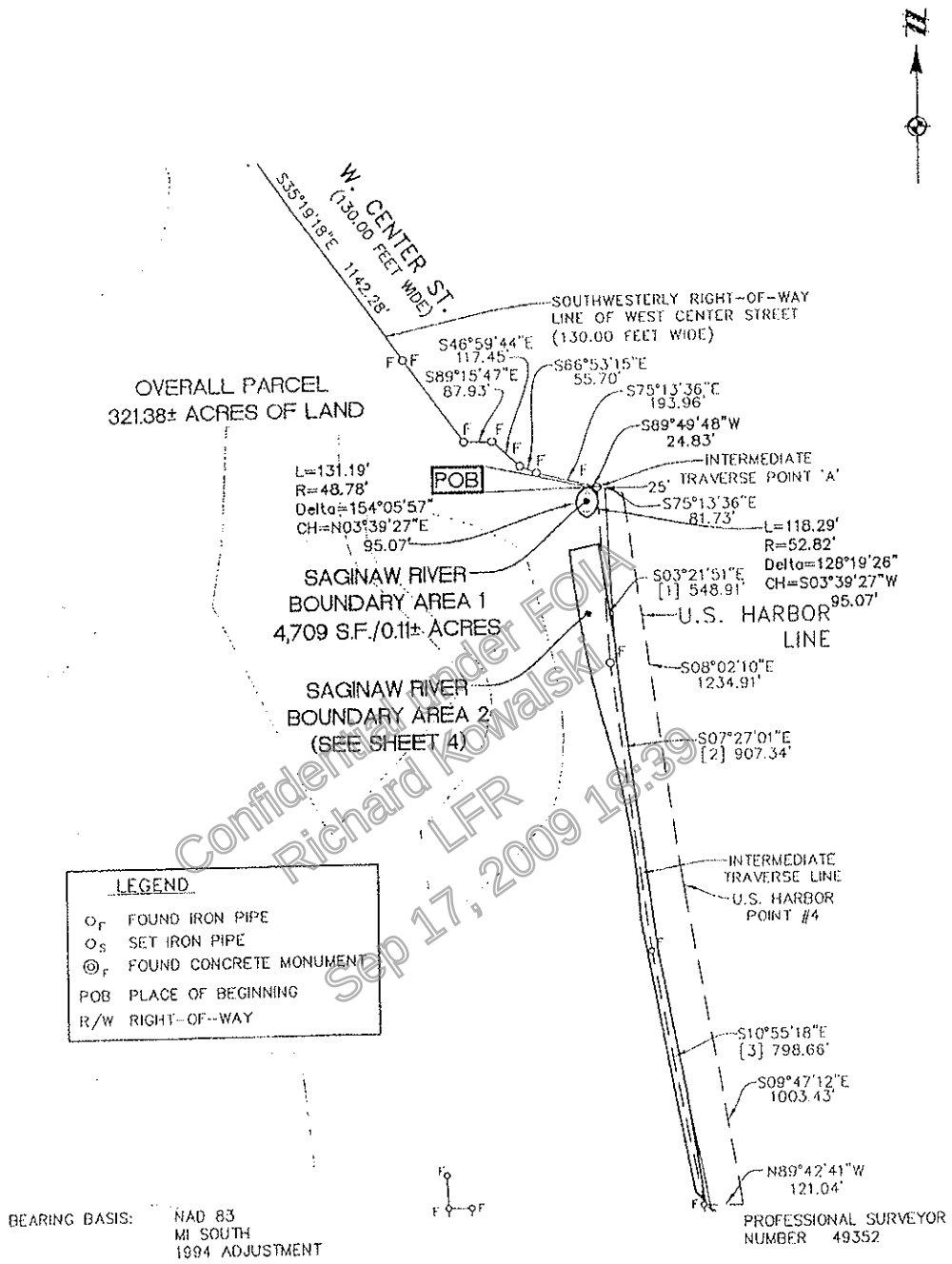
SCALE: 1 INCH =800 FEET (0, 400, 800)

JOB: 05000618
CAD: 05000618SU-07
DR. NLW
CH. MDE
BOOK MA144-9
PG. 63-65
SHEET 1 OF 5
DATE: 07-18-08
FILE CODE: SU-07

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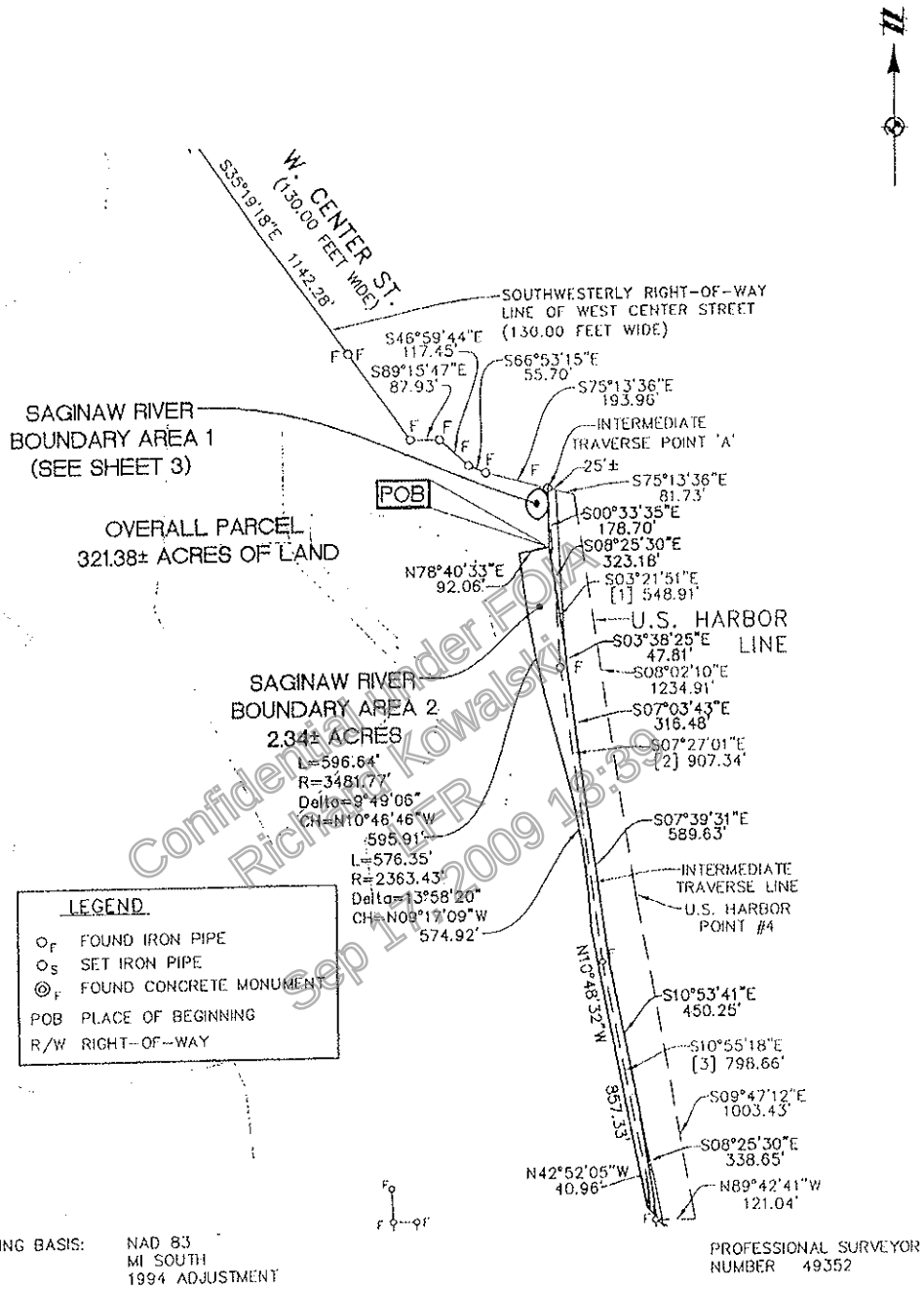
PROFESSIONAL SURVEYOR
NUMBER 49352

I HEREBY CERTIFY THAT I HAVE SURVEYED AND MAPPED THE LAND ABOVE PLATTED AND/OR DESCRIBED ON JULY 8 2008, AND THAT THE RATIO OF CLOSURE ON THE UNADJUSTED FIELD OBSERVATIONS OF SUCH SURVEY WAS 1/5000.

CLIENT: GENERAL MOTORS	JOB: 05000618	CAD: 05000618SU-07
SKETCH AND DESCRIPTION OF 2 PARCELS OF LAND KNOWN AS THE SAGINAW RIVER BOUNDARY AREA LOCATED IN	DR: NLW	CH: MDE
	BOOK: MA144-9	PG: 63-65
SECTIONS 2, 3, 34 & 35, T 11&12 N, R4E CITY OF SAGINAW SAGINAW COUNTY	SHEET 3 OF 5	DATE: 07-18-08
SCALE: 1 INCH = 400 FEET (0, 200, 400)	FILE CODE: SU-07	ATWELL-HICKS www.atwell-hicks.com 866 850 4200
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I HEREBY CERTIFY THAT I HAVE SURVEYED AND MAPPED THE LAND ABOVE PLATTED AND/OR DESCRIBED ON JULY 8 2008, AND THAT THE RATIO OF CLOSURE ON THE UNADJUSTED FIELD OBSERVATIONS OF SUCH SURVEY WAS 1/5000.

CLIENT GENERAL MOTORS	JOB: 05000618	CAD: 05000618SU-07
SKETCH AND DESCRIPTION OF 2 PARCELS OF LAND KNOWN AS THE SAGINAW RIVER BOUNDARY AREA LOCATED IN	DR. NLW	CH. MDE
	BOOK MA144-9	PG. 63-65
SECTIONS 2, 3, 34 & 35, T 11&12 N, R4E CITY OF SAGINAW SAGINAW COUNTY	SHEET 4 OF 5	DATE: 07-18-08
	FILE CODE: SU-07	
SCALE: 1 INCH = 400 FEET (0 200 400)	ATWELL-HICKS www.atwell-hicks.com 866 850 4200	
	ARIZONA FLORIDA ILLINOIS MICHIGAN OHIO PENNSYLVANIA TENNESSEE	Engineering Surveying Planning / Environmental Ecological Water Resources

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DESCRIPTION OF A 0.11 ACRE PARCEL OF LAND

Commencing at a found monument at the center-line intersections of Salt Road (66.00 feet wide) and Sylvan Road (60.00 feet wide) being part of Sections 34 & 35, T12N, R4E, and part of Sections 2 & 3, T11N, R4E, City of Saginaw, Saginaw County, Michigan; thence N41°13'20"E 53.66 feet along the center-line of said Salt Road; thence S48°46'40"E 33.00 feet perpendicular to said center-line of said Salt Road; thence N41°13'20"E 155.86 feet along the Southeasterly Right-of-Way line of said Salt Road; thence S56°24'15"E 100.97 feet; thence S79°30'05"E 162.10 feet; thence N13°24'11"E 160.56 feet; thence along the Southwesterly Right-of-Way line of vacated relocated Florence Street (66.00 feet wide) as recorded thereof in Liber 1269, Page 348 of Saginaw County Records, N76°42'45"W 186.19 feet to the said Southeasterly Right-of-Way line of said Salt Road, said point being S44°49'19"E 33.08 feet from a found monument at the center-line of said Salt Road; thence N41°13'20"E 2.12 feet along the Southeasterly Line of said Salt Road; thence N41°30'33"E 1174.43 feet continuing along said Southeasterly Right-of-Way line of said Salt Road to the Southwesterly Right-of-Way Line of West Center Street (130.00 feet wide) for the following seven (7) courses: [1]S77°59'54"E 348.21 feet; [2]S53°41'09"E 303.68 feet; [3]S35°19'18"E 1142.28 feet; [4]S89°15'47"E 87.93 feet; [5]S46°59'44"E 117.45 feet; [6]S66°53'15"E 55.70 feet; [7]S75°13'36"E 193.96 feet to an intermediate traverse point "A"; said point "A" being N75°13'36"W 81.73 feet from the United States Harbor Line as recorded thereof in Liber 2194 Page 1169 of Saginaw County Records; thence S89°49'48"W 24.83 feet for a PLACE OF BEGINNING; thence 118.29 feet along a 52.82 foot radius non-tangential circular curve to the right, with a central angle of 128°19'26", having a chord which bears S03°39'27"W 95.07 feet; thence 131.19 feet along a 48.78 foot radius non-tangential circular curve to the right, with a central angle of 154°05'57", having a chord which bears N03°39'27"E 95.07 feet to the Place of Beginning. Containing 0.11 acres of land, more or less, subject to easements, conditions, restrictions and exceptions of record, if any.

DESCRIPTION OF A 2.34 ACRE PARCEL OF LAND

Commencing at a found monument at the center-line intersections of Salt Road (66.00 feet wide) and Sylvan Road (60.00 feet wide) being part of Sections 34 & 35, T12N, R4E, and part of Sections 2 & 3, T11N, R4E, City of Saginaw, Saginaw County, Michigan; thence N41°13'20"E 53.66 feet along the center-line of said Salt Road; thence S48°46'40"E 33.00 feet perpendicular to said center-line of said Salt Road; thence N41°13'20"E 155.86 feet along the Southeasterly Right-of-Way line of said Salt Road; thence S56°24'15"E 100.97 feet; thence S79°30'05"E 162.10 feet; thence N13°24'11"E 160.56 feet; thence along the Southwesterly Right-of-Way line of vacated relocated Florence Street (66.00 feet wide) as recorded thereof in Liber 1269, Page 348 of Saginaw County Records, N76°42'45"W 186.19 feet to the said Southeasterly Right-of-Way line of said Salt Road, said point being S44°49'19"E 33.08 feet from a found monument at the center-line of said Salt Road; thence N41°13'20"E 2.12 feet along the Southeasterly Line of said Salt Road; thence N41°30'33"E 1174.43 feet continuing along said Southeasterly Right-of-Way line of said Salt Road to the Southwesterly Right-of-Way Line of West Center Street (130.00 feet wide) for the following seven (7) courses: [1]S77°59'54"E 348.21 feet; [2]S53°41'09"E 303.68 feet; [3]S35°19'18"E 1142.28 feet; [4]S89°15'47"E 87.93 feet; [5]S46°59'44"E 117.45 feet; [6]S66°53'15"E 55.70 feet; [7]S75°13'36"E 193.96 feet to an intermediate traverse point "A"; said point "A" being N75°13'36"W 81.73 feet from the United States Harbor Line as recorded thereof in Liber 2194 Page 1169 of Saginaw County Records; thence S00°33'35"E 178.70 feet for a PLACE OF BEGINNING; thence S08°25'30"E 323.18 feet; thence S03°38'25"E 47.81; thence S07°03'43"E 316.48 feet; thence S07°39'31"E 589.63 feet; thence S10°53'41"E 450.25 feet; thence S08°25'30"E 338.65 feet; thence N42°52'05"W 40.96 feet; thence N10°48'32"W 857.33 feet; thence 576.35 feet along a 2363.43 foot radius non-tangential circular curve to the left, with a central angle of 13°58'20", having a chord which bears N09°17'09"W 574.92 feet; thence 596.64 feet along a 3481.77 foot radius reverse circular curve to the right, having a central angle of 09°49'06", having a chord which bears N10°46'46"W 595.91 feet; thence N78°40'33"E 92.06 feet to the Place of Beginning. Containing 2.34 acres of land, more or less, subject to easements, conditions, restrictions and exceptions of record, if any.

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BEARING BASIS: NAD 83
MI SOUTH
1994 ADJUSTMENT

I HEREBY CERTIFY THAT I HAVE SURVEYED AND MAPPED THE LAND ABOVE PLATTED AND/OR DESCRIBED ON JULY 8 2008, AND THAT THE RATIO OF CLOSURE ON THE UNADJUSTED FIELD OBSERVATIONS OF SUCH SURVEY WAS 1/5000.

PROFESSIONAL SURVEYOR
NUMBER 49352

CLIENT GENERAL MOTORS	JOB: 05000618	CAD: 05000618SU-07
SKETCH AND DESCRIPTION OF 2 PARCELS OF LAND KNOWN AS THE SAGINAW RIVER BOUNDARY AREA LOCATED IN	DR: NLW	CK: MDE
	BOOK: MA144-9	PG: 63-65
	SHEET: 5 OF 5	DATE: 07-18-08
SECTIONS 2, 3, 34 & 35, T 11&12 N, R4E CITY OF SAGINAW SAGINAW COUNTY	FILE CODE: SU-07	
	ATWELL-HICKS www.atwell-hicks.com 866 850 4200	
	ARIZONA FLORIDA ILLINOIS MICHIGAN OHIO PENNSYLVANIA TENNESSEE | Engineering Surveying Planning | Environmental Ecological Water Resources	

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EXHIBIT 14

DESCRIPTION OF ALLOWABLE USES

Examples of permitted industrial activities on the Property include manufacturing, utilities (including electrical and gas lines and associated facilities), and industrial research and development. Examples of permitted commercial activities on the Property include large scale commercial warehouse operations, wholesale lumber yards, and building supply warehouses. Examples of additional types of permitted commercial activities on the Property (except for the Former Railyard Area and the LNAPL Assessment and Remediation Area) include retail gas stations, auto service stations, auto dealerships, retail, retail warehouses selling the majority of their merchandise indoors but including some limited storage or stockpiling of materials in an outdoor yard, repair and service establishments, small warehouse operations, professional offices, banks, credit unions, savings and loan institutions, publicly owned office buildings, and personal service establishments which perform services indoors.

Examples of activities which would not be permitted on the Property include, but are not limited to, day cares (except day-cares that are limited to indoor activities), schools, churches, convalescent or nursing homes, and hospitals.

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DECLARATION OF RESTRICTIVE COVENANT
GREEN POINT LANDFILL PROPERTY

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DRAFTED BY AND WHEN RECORDED
RETURN TO:

Todd C. Schebor, Esq.
Dykema Gossett PLLC
400 Renaissance Center
Detroit, Michigan 48243

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DECLARATION OF RESTRICTIVE COVENANT

MDEQ Reference No.: RC-RRD-[Yr]-[number]

This Declaration of Restrictive Covenant ("Restrictive Covenant") has been recorded with the Saginaw County Register of Deeds for the purpose of protecting public health, safety, welfare, and the environment by prohibiting or restricting activities that could result in unacceptable exposure to environmental contamination present at the property located in the City of Saginaw, County of Saginaw and legally described in Exhibit 1attached hereto ("Property"). The Property is associated with General Motors Corporation-Saginaw Malleable Iron Plant, Site I.D. 73000014 for which a remedial action plan is being conducted. The remedial action that is being implemented to address environmental contamination is fully described in the Remedial Action Plan, Saginaw Malleable Iron Plant Property and REALM, Inc., Green Point Landfill and Drum Remediation Area, dated July, 2008 ("RAP"), and submitted by General Motors Corporation ("GM"), Remediation and Liability Management Company, Inc. ("REALM, Inc.") and Waste Management, Inc. The Michigan Department of Environmental Quality ("MDEQ") approved the RAP on _____, __ 2009, pursuant to Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended ("NREPA"), MCL 324.20101 et seq.

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The RAP requires the recording of this Restrictive Covenant with the Saginaw County Register of Deeds to: 1) restrict unacceptable exposures to hazardous substances located on the Property; 2) assure that the use of the Property is consistent with the exposure assumptions utilized in the development of cleanup criteria pursuant to Sections 20120a(1)(g), 20120a(1)(i) and 20120a(2) of the NREPA and the exposure control measures relied upon in the RAP which consist of a cap that has been installed on Green Point Landfill and 3) to prevent damage or disturbance of any element of the response activity constructed on the Property. The restrictions contained in this Restrictive Covenant are based upon information available to the MDEQ at the time the RAP was approved by the MDEQ. Failure of the response activities to achieve and maintain the criteria, exposure controls, and requirements specified in the RAP; future changes in the environmental condition of the Property or changes in the cleanup criteria developed under Section 20120a(1)(g) , 20120a(1)(i) and 20120a(2) of the NREPA; the discovery of environmental conditions at the Property that were not accounted for in the RAP; or use of the Property in a manner inconsistent with the restrictions described herein, may result in this Restrictive Covenant not being protective of public health, safety, and welfare, and the environment.

Exhibit 2 provides a survey of the Property that is subject to the land use or resource use restrictions which apply to the entire Property and are described in Paragraphs 1, 2a, and 2c

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below, and Exhibits 3 and 4 provide the legal descriptions and surveys that distinguishes those portions of the Property that are subject to additional specific land use or resource use restrictions as specified herein.

Exhibit Number	Area	Summary of Primary Restrictions	Location of Complete Description of Restrictions
2	Green Point Landfill Property	• Limiting Property to industrial and limited commercial II, III, and IV use only • Prohibiting installation of wells for potable water supply.	Paragraph 1, 2a, and 2c
3	Former Hillock Area of the Drum Remediation Area	• Worker duration restrictions apply for intrusive/construction workers • Restrictions on intrusive activities	Paragraph 2b and e
4	Terminated Green Point Landfill	• Maintenance of existing cover material required • Restrictions on building construction • Restrictions on intrusive activities	Paragraph 2b, d, f

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Summary of Response Activities

The following response activities have been completed or will be completed as described in the remedial action plan approved by the department:

- Capping of the Green Point Landfill;
- periodic monitoring and maintenance of the Green Point Landfill;
- construction of wetlands mitigated as a result of constructing the Green Point Landfill cap;
- excavation and removal of drums and fill material from the Drum Remediation Area and Former Hillock Area; and
- periodic monitoring of groundwater.

Definitions

"Intrusive Activities" means any activities that involve physical intrusion into the subsurface.

"MDEQ" means the Michigan Department of Environmental Quality, its successor entities, and those persons or entities acting on its behalf.

"Owner" means at any given time the then current title holder of the Property or any portion thereof.

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All other terms used in this document which are defined in Part 3, Definitions, of the NREPA; Part 201 of the NREPA; or the Part 201 Administrative Rules ("Part 201 Rules"), 1990 AACS R 299.5101 et seq., shall have the same meaning in this document as in Parts 3 and 201 of the NREPA and the Part 201 Rules, as of the date of filing of this Restrictive Covenant.

NOW THEREFORE,

Declaration of Land Use and Resource Use Restrictions

Pursuant to the RAP and Consent Judgment #98-22686-CE-2 entered by the Circuit Court of Saginaw County, REALM, Inc. as Owner of the Property, hereby declares and covenants that the Property shall be subject to the following restrictions and conditions:

1. The Owner shall prohibit all uses of the entire Property, that are not compatible with the limited industrial, limited commercial II, III, and IV, and site-specific categories under Section 20120a(1)(g) , 20120a(1)(i) and 20120a(2) of the NREPA and generally described in the Description of Allowable Uses, attached hereto as Exhibit 5. The Owner may re-evaluate the exceedances and make appropriate changes or, if needed, provide additional remediation for the allowable land use, provided that the changes and new land use are reviewed and approved by GM, REALM, Inc., and the MDEQ. Cleanup criteria for land use-based response activities are located in the Government Documents Section of the State of Michigan Library. The following uses allowed under the City of Saginaw M-2 General Industrial zoning code designations are prohibited:

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Hotels and motels

Penal and correctional institutions and detention facilities subject to the standards in §§ 153.490 *et seq* of the Saginaw Code of Ordinances.

2. The Owner shall prohibit activities on the Property that may result in exposures above levels established in the RAP. These prohibited activities include:

a. No activities at the Property are allowed that may interfere with the Remedial Action, operation or maintenance, monitoring, or other measures necessary to assure the effectiveness and integrity of the Remedial Action.

b. In order to protect against direct contact with contaminated subsurface soils, no activities at the Property that may result in exposures to such soils in areas where such media exceed the applicable exposure criteria identified in the RAP (Former Hillock Area of the Drum Remediation Area and the Terminated Green Point Landfill Area, Exhibits 3 and 4) are permitted unless conducted in conformance with the RAP and the health and safety requirements set forth under the Michigan Occupational Safety and Health Act ("MiOSHA"), the federal Occupational Safety and Health Act ("OSHA"), and all other applicable local, state, and federal laws and regulations. The MDEQ shall be notified whenever these activities are undertaken and records shall be kept of activities that can be

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reviewed by the MDEQ upon request for five years. All excavated soils and extracted fluids shall be managed in accordance with the requirements of section 20107a of NREPA and all other applicable local, state, and federal laws and regulations.

c. In order to restrict the use and consumption of groundwater, wells shall not be installed on the Property for extracting groundwater for potable or domestic uses. This provision does not prohibit installation of wells for: environmental study, monitoring, or remediation; dewatering of excavations; non-contact cooling water; ground water heat pumps; or for emergency purposes, provided that the installation and operation of such wells is in compliance with applicable federal, state and local laws and regulations and the fluids are managed in accordance with the requirements of Section 20107a of NREPA and other applicable local, state and federal laws and regulations.

d. No subsurface footings, utilities or structures of any type ("Subsurface Structures") may be installed in the Terminated Green Point Landfill Area (Exhibit 4) except as consistent with, and allowed by, the RAP.

e. To protect against direct contact with hazardous substances present in subsurface soil and groundwater in the Former Hillock Area of the Drum Remediation Area (Exhibit 3), Intrusive Activities must be completed in accordance with the health and safety requirements set forth under MiOSHA, the OSHA, and all other applicable local, state, and federal laws and regulations. Activities in the Former Hillock Area of the Drum Remediation Area (Exhibit 3) are restricted so that access by an intrusive/construction worker spends no more than 30 days, per any such worker per year, in the area. The MDEQ shall be notified whenever these activities are undertaken and records shall be kept of activities that can be reviewed by the MDEQ upon request for five years. All excavated soils and extracted fluids shall be managed in accordance with the requirements of section 20107a of NREPA and all other applicable local, state, and federal laws and regulations.

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f. In order to protect against direct contact with potential hazardous substances present in soil or fill material in the Terminated Green Point Landfill Area (Exhibit 4), cover materials must be maintained. In the event the cover is disrupted or temporarily removed, it shall be restored by Owner at Owner's expense. Intrusive Activities in the waste materials in the landfill must be completed in accordance with the health and safety requirements set forth under MiOSHA, the OSHA, and all other applicable local, state, and federal laws and regulations. The MDEQ shall be notified whenever these activities are undertaken and records shall be kept of activities that can be reviewed by the MDEQ upon request for five years. All excavated soils and extracted fluids shall be managed in

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accordance with the requirements of section 20107a of NREPA and all other applicable local, state, and federal laws and regulations.

3. The Owner shall prohibit activities on the Property that may interfere with any element of the RAP, including the performance of operation and maintenance activities, monitoring, or other measures necessary to ensure the effectiveness and integrity of the RAP.

4. Contaminated Soil Management. The Owner shall manage all soils, media and/or debris located on the Property in accordance with the applicable requirements of the RAP; Section 20120c of the NREPA; Part 111, Hazardous Waste Management, of the NREPA; Subtitle C of the Resource Conservation and Recovery Act, 42 U.S.C. Section 6901 et seq.; the administrative rules promulgated thereunder; and all other relevant state and federal laws.

5. Access. The Owner shall grant to the MDEQ, GM, REALM, Inc. and their designated representatives the right to enter the Property at reasonable times for the purpose of determining and monitoring compliance with the RAP, including the right to take samples, inspect the operation of the response activities and, inspect any records relating thereto, and to perform any actions necessary to maintain compliance with Part 201 and the RAP.

6. Notice. The Owner shall provide notice to the MDEQ, GM and REALM, Inc. of the Owner's intent to transfer any interest in the Property at least fourteen (14) business days prior to consummating the conveyance. This notice requirement does not obviate the requirement to comply with any other applicable notice requirement. A conveyance of title, easement, or other interest in the Property shall not be consummated by the Owner without adequate and complete provision for compliance with the terms and conditions of this Restrictive Covenant and the applicable provisions of Section 20116 of the NREPA. The notice required to be made to the MDEQ under this Paragraph shall be made to: Director, MDEQ, P.O. Box 30473, Lansing, Michigan 48909-7973; and shall include a statement that the notice is being made pursuant to the requirements of this Restrictive Covenant, MDEQ Reference Number RC-RRD-[YR]-[number]. The notice required to be made to GM and under this Paragraph shall be made to: Cheryl Hiatt, WFG – Remediation, Engineering Center – West, 30200 Mound Road, Mail code: 480-111-W60, Warren, MI 48090. The notice required to be made to REALM, Inc. under this Paragraph shall be made to: William McFarland, WFG – Remediation, Engineering Center – West, 30200 Mound Road, Mail code: 480-111-W60, Warren, MI 48090. A copy of this Restrictive Covenant shall be provided to all future owners, heirs, successors, lessees, easement holders, assigns, and transferees by the person transferring the interest.

7. Term and Enforcement of Restrictive Covenant. This Restrictive Covenant shall run with the Property and shall be binding on the Owner; future owners; and all current and future successors, lessees, easement holders, their assigns, and their authorized agents, employees, or persons acting under their direction and control. This Restrictive Covenant may only be modified or rescinded with the written approval of the MDEQ, GM, and REALM, Inc.

The State of Michigan, through the MDEQ, GM and REALM, Inc. may enforce the restrictions set forth in this Restrictive Covenant by legal action in a court of competent jurisdiction.

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8. Severability. If any provision of this Restrictive Covenant is held to be invalid by any court of competent jurisdiction, the invalidity of such provision shall not affect the validity of any other provisions hereof, and all such other provisions shall continue unimpaired and in full force and effect.

9. Authority to Execute Restrictive Covenant . The undersigned person executing this Restrictive Covenant is the Owner and represents and certifies that he or she is duly authorized and has been empowered to execute and deliver this Restrictive Covenant.

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IN WITNESS WHEREOF, The Remediation and Liability Management Company, Inc. has caused this Restrictive Covenant to be executed on this_____day of_____, 200__.

The Remediation and Liability Management Company, Inc.

By: _____
Signature

Name: _____
Print or Type Name

Its: _____
Title

STATE OF Michigan
COUNTY OF Wayne

The foregoing instrument was acknowledged before me this [date] by [name of officer or agent, title of officer or agent] of the Remediation and Liability Management Company, Inc., a _____ corporation.

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Notary Public _____

[Print or type name]
[Commissioned in] County, [State]

My Commission Expires: _____

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EXHIBIT 1

LEGAL DESCRIPTION OF THE GREEN POINT LANDFILL PROPERTY

PARCEL OF LAND LOCATED IN THE CITY OF SAGINAW, SAGINAW COUNTY MORE PARTICULARLY DESCRIBED AS FOLLOWS:

DESCRIPTION OF A 122.23 ACRE PARCEL OF LAND
(REALM, INC. PROPERTY)

Commencing at the Northwest Corner of Section 2, being part of Sections 34 & 35, T12N, R4E, and part of Sections 2 & 3, T11N, R4E, City of Saginaw, Saginaw County, Michigan; thence N89°38'51"W 799.20 feet along the North line of said Section 2 for a **PLACE OF BEGINNING**; thence N00°07'03"W 812.05 feet; thence S89°39'56"E 453.71 feet; thence N00°08'29"E 499.70 feet; thence S89°40'47"E 349.80 feet; thence S00°10'11"W 524.17 feet; thence S89°35'00"E 300.33 feet; thence N00°07'58"E 98.85 feet; thence S89°36'59"E 1421.88 feet; thence S01°57'47"E 100.28 feet to the West line of Consumers Power Company Right-of-Way (72.00 feet wide) as recorded thereof in Liber 1106 Pages, 426 & 427; thence S01°57'47"E 1942.95 feet along said Consumers Power Company Right-of-Way; thence N89°53'29"W 1754.30 feet to a point being S01°59'22"E 1164.37 feet from the Northeast corner of said Section 3; thence N89°53'15"W 836.68 feet; thence N00°08'37"W 1166.95 feet to the Place of Beginning. Containing 122.23 acres of land, more or less, subject to easements, conditions, restrictions and exceptions of record, if any.

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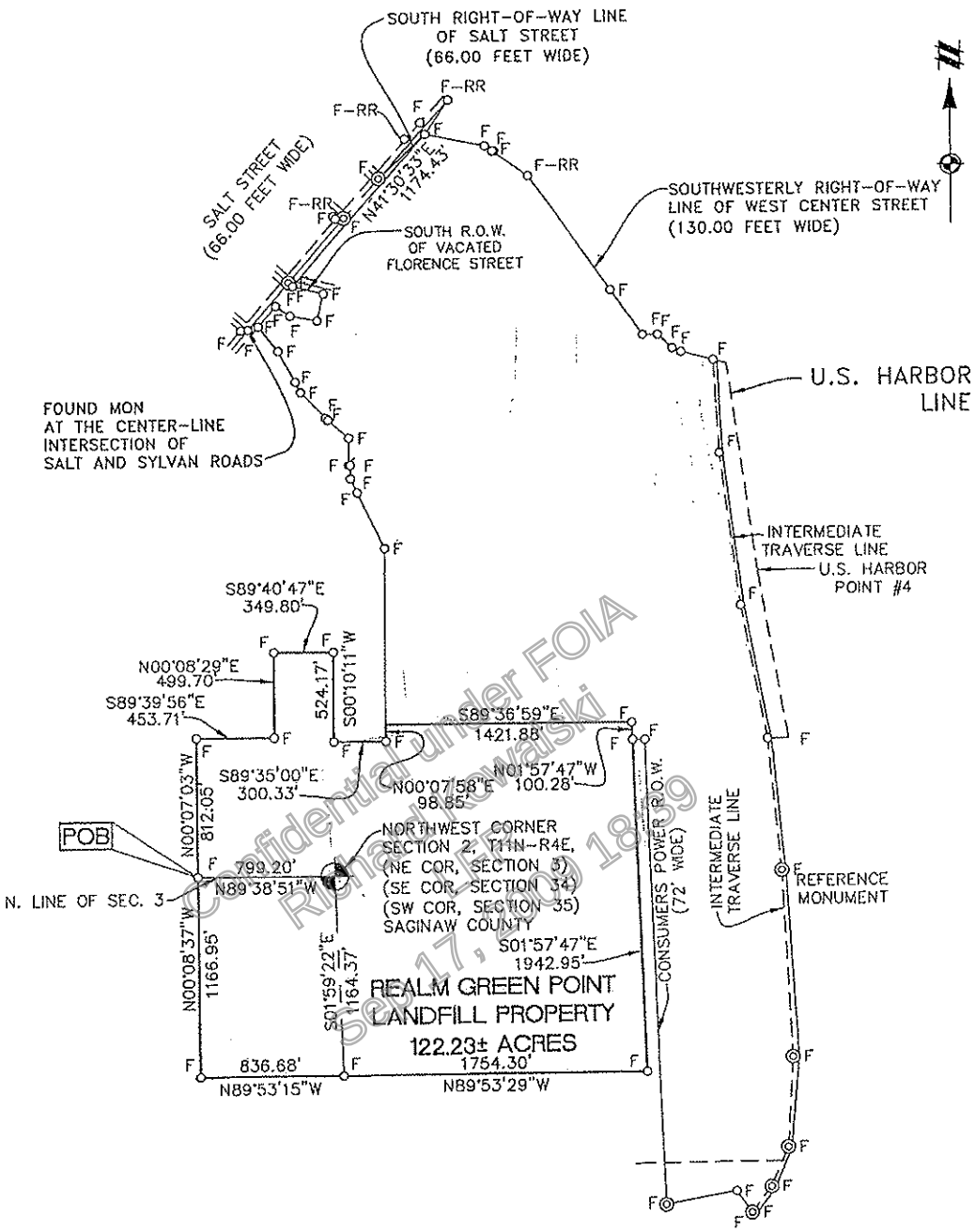
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EXHIBIT 2
GREEN POINT LANDFILL PROPERTY SURVEY AND LOCATION FIGURE

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LEGEND

O_F	FOUND IRON PIPE
O_S	SET IRON PIPE
$◎_F$	FOUND CONCRETE MONUMENT
POB	PLACE OF BEGINNING
R/W	RIGHT-OF-WAY

CLIENT: GENERAL MOTORS

SKETCH AND DESCRIPTION OF A 122.23 ACRE PARCEL OF LAND-REALM GREEN POINT LANDFILL PROPERTY LOCATED IN

SECTIONS 2, 3, 34 & 35, T11&12N, R4E
CITY OF SAGINAW
SAGINAW COUNTY, MICHIGAN

SCALE: 1 INCH =800 FEET (0, 400, 800)

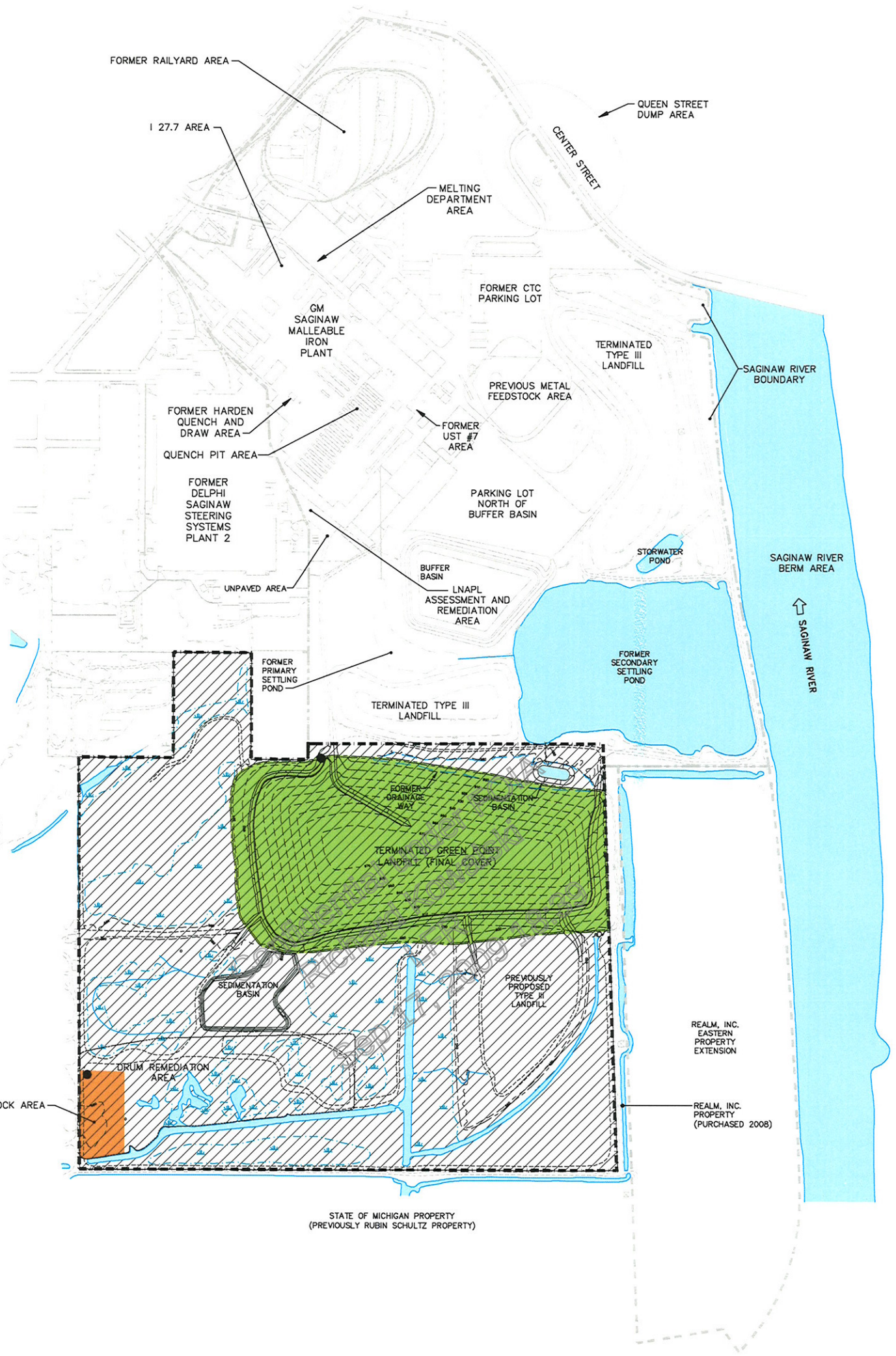
JOB: 05000618 | CAD: 08003152SU-17
DR.: BAL | CH.: DLN
BOOK: | PG.:
SHEET 1 OF 2 | DATE: 5/13/09
FILE CODE: SU-0-17

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CITY: SYRACUSE DIV/GROUP: 141 DB: GMS LD: GMS PM:(Reqd) LYR:ON=*;OFF=REF, DATABOX_POINT
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NOTES:

1. THIS PHOTOGRAMMETRIC BASE MAP FOR THE GM SAGINAW MALLEABLE IRON PLANT AND DELPHI SAGINAW STEERING SYSTEMS PLANT 2 PROPERTIES WAS PREPARED BY LOCKWOOD MAPPING, INC. OF ROCHESTER, NEW YORK. AERIAL PHOTOGRAPHY WAS CONDUCTED ON 11/11/94. ORIGINAL LOCKWOOD MAP WAS AT A SCALE OF 1"=100' AND WAS INTERPRETED FOR TWO-FOOT CONTOURS.
2. BASE MAP HAS BEEN MODIFIED TO INCORPORATE BUFFER BASIN, SEDIMENTATION BASINS, WETLANDS MITIGATION AREA, AND GREEN POINT LANDFILL (GPL) FINAL COVER FROM THE FINAL ENGINEERING DESIGN REPORT PREPARED BY BBL FOR THE GPL, DATED JANUARY 1998.
3. VERTICAL DATUM REFERENCED TO NGVD OF 1929, HORIZONTAL DATUM REFERENCED TO MICHIGAN SPC-NAD 1983.
4. PROPERTY BOUNDARY FOR REALM, INC, DIGITIZED FROM SPICER GROUP DRAWING NO. A-21854-1, DATED 3/27/98.
5. BASE MAP INFORMATION SOUTH OF MAIN REALM, INC. PROPERTY LINE FROM AIR-LAND SURVEYS, INC. PHOTO DATE 11/90, MAPPING DATE 10/91.

LEGEND:

- GM SAGINAW MALLEABLE IRON PLANT PROPERTY LINE (APPROX.)
- REALM, INC. PROPERTY LINE (APPROX.)
- UNPAVED ROAD
- GROUND SURFACE ELEVATION CONTOUR (10 FT INTERVAL)
- FENCE LINE
- SWAMPY AREA
- AREA SUBJECT TO RESTRICTIVE COVENANT THAT LIMITS PROPERTY USE TO INDUSTRIAL AND COMMERCIAL II AND PROHIBITS THE INSTALLATION OF POTABLE WATER SUPPLY WELLS.
- AREA SUBJECT TO RESTRICTIVE COVENANT THAT PLACES RESTRICTIONS ON INTRUSIVE ACTIVITIES AND PROVIDES FOR THE MAINTENANCE OF CAP OR COVER MATERIALS.
- AREA SUBJECT TO RESTRICTIVE COVENANT THAT PLACES RESTRICTIONS ON INTRUSIVE ACTIVITIES. WORKER DURATION RESTRICTIONS APPLY AS DETAILED IN THE RAP AND PROPOSED RESTRICTIVE CONVENANT.
- PERMANENT MARKER LOCATION

0 300' 600'
GRAPHIC SCALE

SAGINAW MALLEABLE IRON PLANT PROPERTY,
GREEN POINT LANDFILL, AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN
REMEDIAL ACTION PLAN

AREAS SUBJECT TO PROPOSED RESTRICTIVE COVENANTS GREEN POINT LANDFILL PROPERTY

ARCADIS

FIGURE
1

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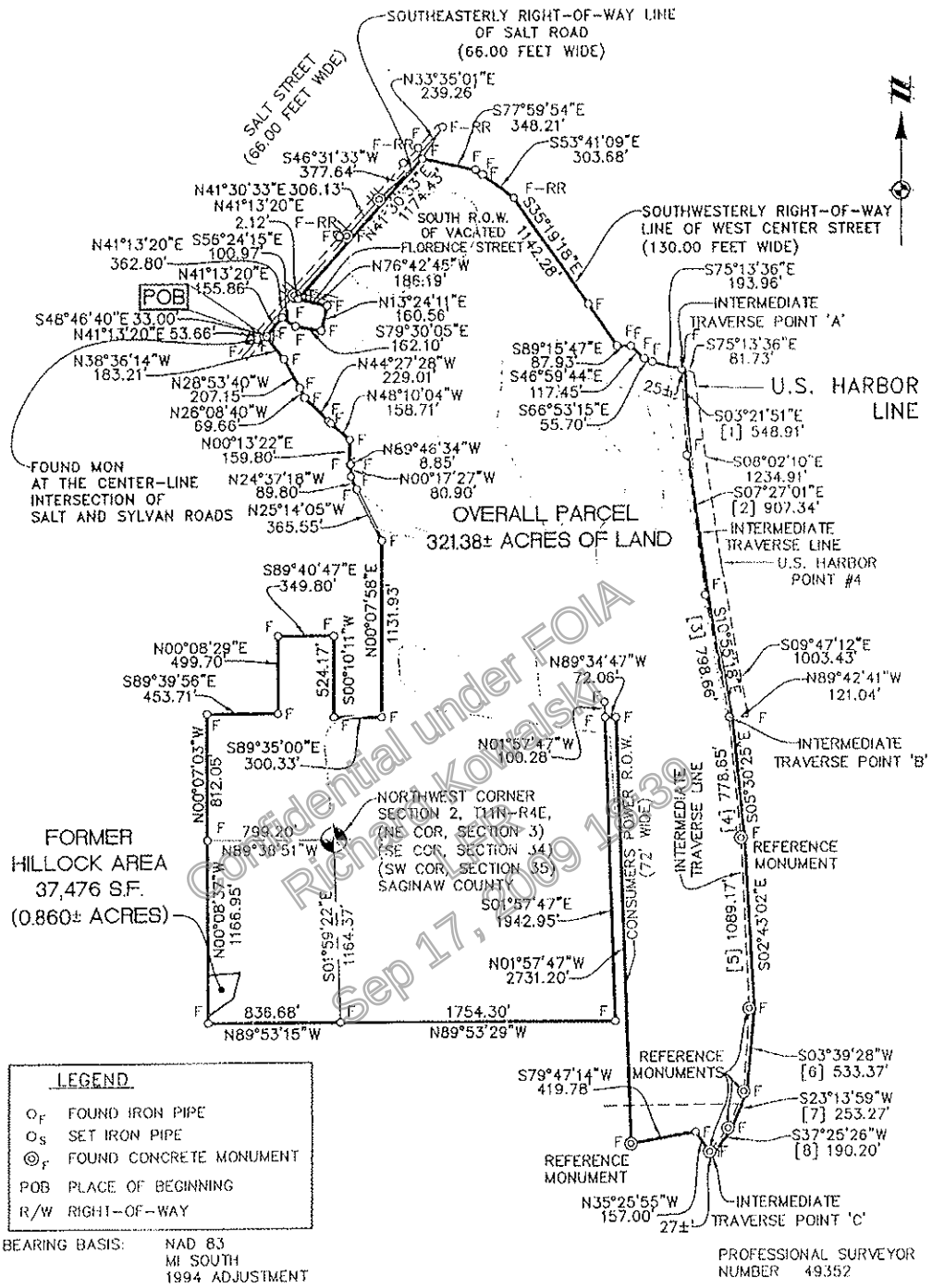
EXHIBIT 3

FORMER HILLOCK AREA OF THE DRUM REMEDIATION AREA SURVEY AND LEGAL DESCRIPTION

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LEGEND

O_F	FOUND IRON PIPE
O_S	SET IRON PIPE
$\odot_F$	FOUND CONCRETE MONUMENT
POB	PLACE OF BEGINNING
R/W	RIGHT-OF-WAY

BEARING BASIS: NAD 83 MI SOUTH 1994 ADJUSTMENT

PROFESSIONAL SURVEYOR NUMBER 49352

I HEREBY CERTIFY THAT I HAVE SURVEYED AND MAPPED THE LAND ABOVE PLATTED AND/OR DESCRIBED ON JULY 8 2008, AND THAT THE RATIO OF CLOSURE ON THE UNADJUSTED FIELD OBSERVATIONS OF SUCH SURVEY WAS 1/5000.

CLIENT GENERAL MOTORS

SKETCH AND DESCRIPTION OF A 0.860 ACRE PARCEL OF LAND – FORMER HILLOCK AREA LOCATED IN

SECTIONS 2, 3, 34 & 35, T 11&12 N, R 4 E.
SAGINAW TOWNSHIP
SAGINAW COUNTY

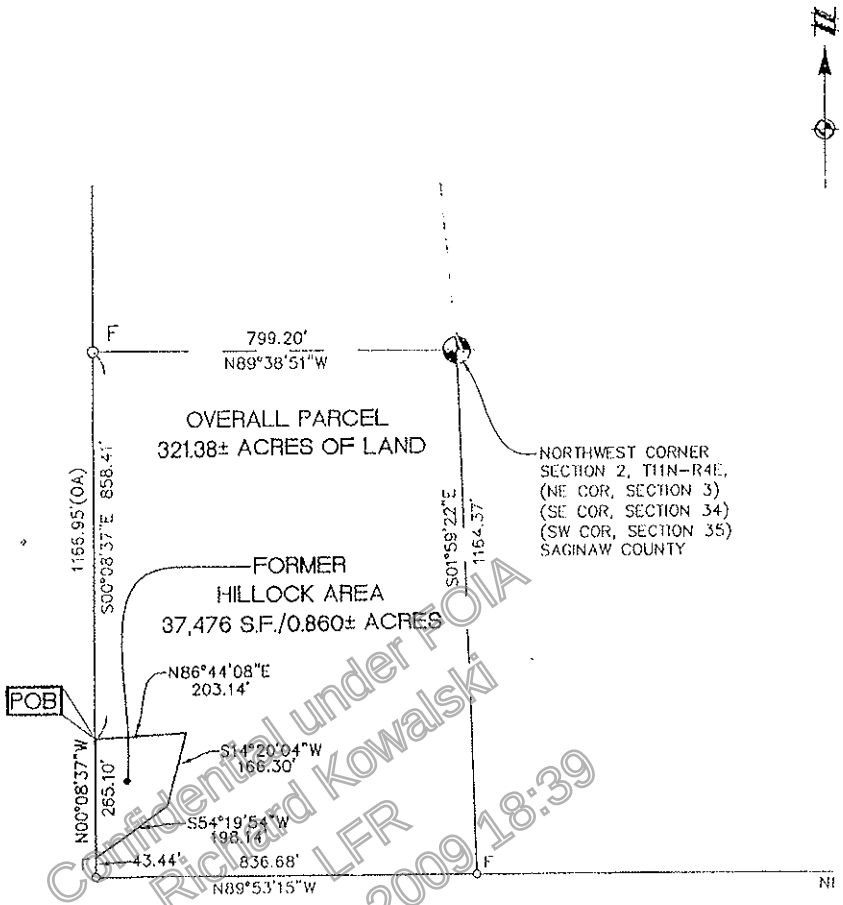
SCALE: 1 INCH =800 FEET (0 400 800)

JOB: 05000618 | CAD: 05000618SU-13
DR: NLW | CH: MDE
BOOK MA144-9 | PG: 63-65
SHEET 1 OF 4 | DATE: 07-18-08
FILE CODE: SU-13

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LEGEND

O_F	FOUND IRON PIPE
O_S	SET IRON PIPE
$\odot_F$	FOUND CONCRETE MONUMENT
POB	PLACE OF BEGINNING
R/W	RIGHT-OF-WAY

BEARING BASIS: NAD 83
MI SOUTH
1994 ADJUSTMENT

PROFESSIONAL SURVEYOR
NUMBER 49352

I HEREBY CERTIFY THAT I HAVE SURVEYED AND MAPPED THE LAND ABOVE PLATTED AND/OR DESCRIBED ON JULY 8 2008, AND THAT THE RATIO OF CLOSURE ON THE UNADJUSTED FIELD OBSERVATIONS OF SUCH SURVEY WAS 1/5000.

CLIENT GENERAL MOTORS

SKETCH AND DESCRIPTION OF A 0.860 ACRE PARCEL OF LAND – FORMER HILLOCK AREA LOCATED IN

SECTIONS 2, 3, 34 & 35, T 11&12 N, R4E
CITY OF SAGINAW
SAGINAW COUNTY

SCALE: 1 INCH = 300 FEET (0 150 300)

JOB: 05000618
DR. NLW
BOOK MA144-9
SHEET 3 OF 4
FILE CODE: SU-13
CAD 05000618SU-13
CH. MDE
PG. 63-65
DATE: 07-18-08

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DESCRIPTION OF A 0.860 ACRE PARCEL OF LAND

Commencing at the Northeast Corner of Section 3, being part of Section 3, T11N, R4E, City of Saginaw, Saginaw County, Michigan; thence N89°38'51"W 799.20 feet; thence S00°08'37"E 858.41 feet for a **PLACE OF BEGINNING**; thence N86°44'08"E 203.14 feet; thence S14°20'04"W 166.30 feet; thence S54°19'54"W 198.14 feet; thence N00°08'37"W 265.10 feet to the Place of Beginning. Containing 37,476 square feet (0.860 acres) of land, more or less, subject to easements, conditions, restrictions and exceptions of record, if any.

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1994 ADJUSTMENT

PROFESSIONAL SURVEYOR
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CLIENT GENERAL MOTORS	JOB: 05000618	CAD: 05000618SU-13
	DR: NLW	CH: MDE
SKETCH AND DESCRIPTION OF A 0.860 ACRE PARCEL OF LAND – FORMER HILLOCK AREA LOCATED IN	BOOK: MA144-9	PG: 63-65
	SHEET: 4 OF 4	DATE: 07-18-08
SECTIONS 2, 3, 34 & 35, T 11&12 N, R4E CITY OF SAGINAW SAGINAW COUNTY	FILE CODE: SU-13	
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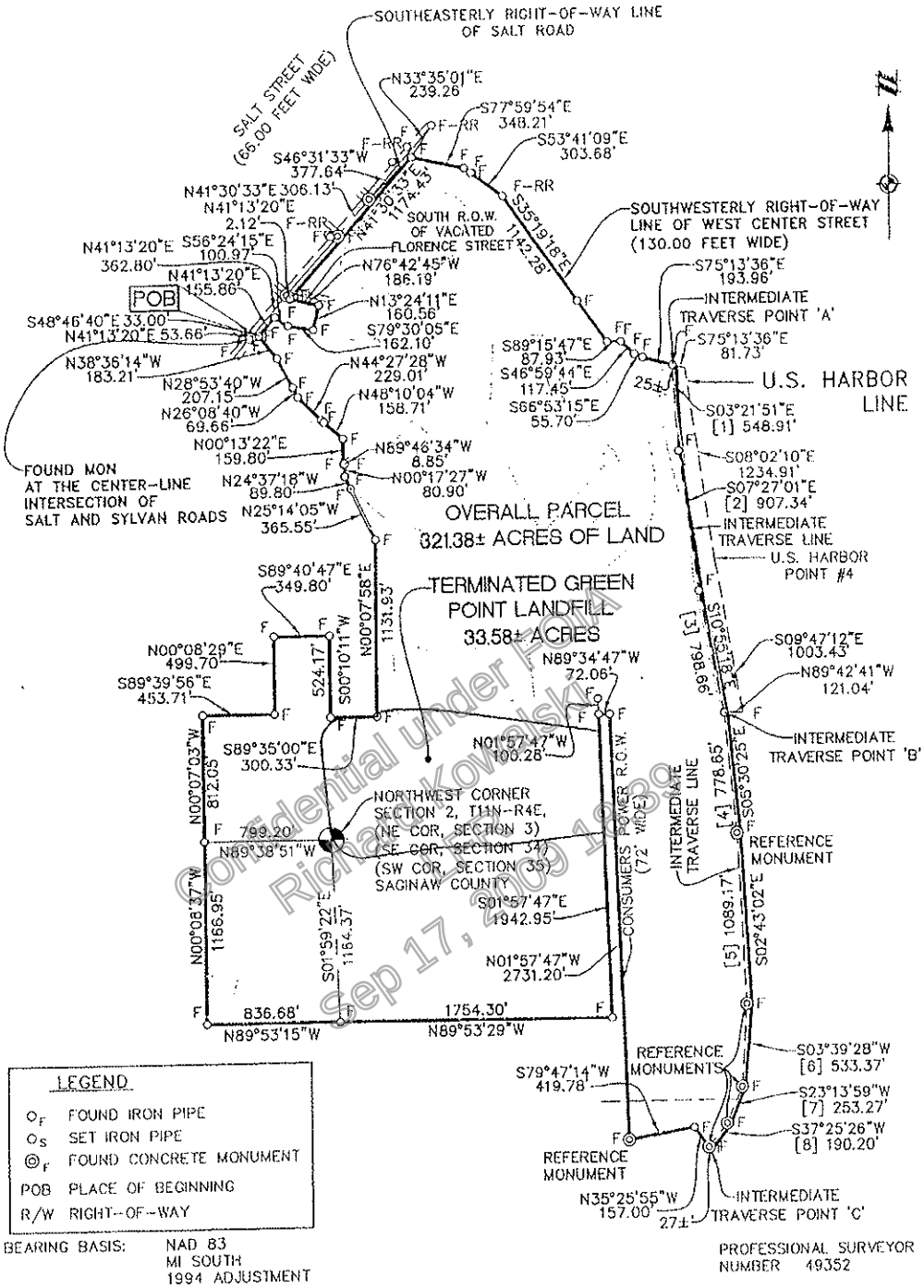
EXHIBIT 4

TERMINATED GREEN POINT LANDFILL SURVEY AND LEGAL DESCRIPTION

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LEGEND	
O_F	FOUND IRON PIPE
O_S	SET IRON PIPE
$\odot_F$	FOUND CONCRETE MONUMENT
POB	PLACE OF BEGINNING
R/W	RIGHT-OF-WAY

BEARING BASIS: NAD 83 MI SOUTH 1994 ADJUSTMENT

PROFESSIONAL SURVEYOR NUMBER 49352

I HEREBY CERTIFY THAT I HAVE SURVEYED AND MAPPED THE LAND ABOVE PLATTED AND/OR DESCRIBED ON JULY 8 2008, AND THAT THE RATIO OF CLOSURE ON THE UNADJUSTED FIELD OBSERVATIONS OF SUCH SURVEY WAS 1/5000.

CLIENT GENERAL MOTORS

SKETCH AND DESCRIPTION OF A 33.58 ACRE PARCEL OF LAND-TERMINATED GREEN POINT LANDFILL LOCATED IN SECTIONS 2, 3, 34 & 35, T 11&12 N, R 4E SAGINAW TOWNSHIP SAGINAW COUNTY

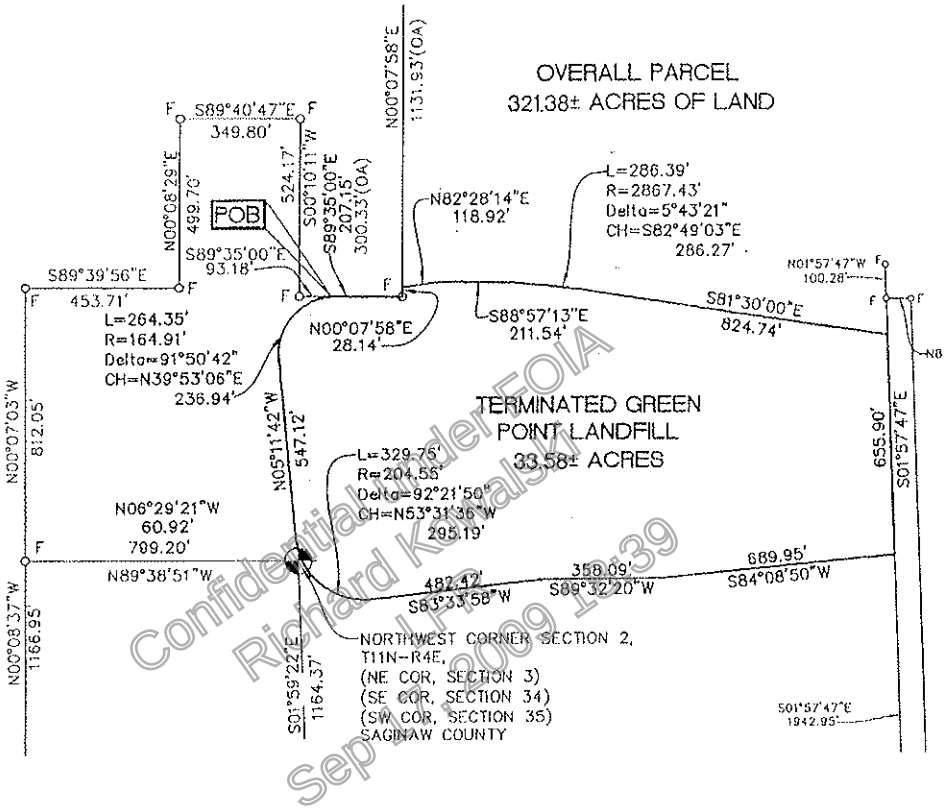
SCALE: 1 INCH =800 FEET (0 400 800)

JOB: 05000618 | CAD: 05000618SU-11
DR: NLW | CK: MDE
BOOK: MA144-9 | PG: 63-65
SHEET 1 OF 4 | DATE: 07-18-08
FILE CODE: SU-11

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LEGEND	
O_F	FOUND IRON PIPE
O_S	SET IRON PIPE
$\odot_F$	FOUND CONCRETE MONUMENT
POB	PLACE OF BEGINNING
R/W	RIGHT-OF-WAY

BEARING BASIS: NAD 83
MI SOUTH
1994 ADJUSTMENT

PROFESSIONAL SURVEYOR
NUMBER 49352

I HEREBY CERTIFY THAT I HAVE SURVEYED AND MAPPED THE LAND ABOVE PLATTED AND/OR DESCRIBED ON JULY 8 2008, AND THAT THE RATIO OF CLOSURE ON THE UNADJUSTED FIELD OBSERVATIONS OF SUCH SURVEY WAS 1/5000.

CLIENT GENERAL MOTORS

SKETCH AND DESCRIPTION OF A 33.58 ACRE PARCEL OF LAND-TERMINATED GREEN POINT LANDFILL LOCATED IN SECTIONS 2, 3, 34 & 35, T 11&12 N, R4E CITY OF SAGINAW SAGINAW COUNTY

SCALE: 1 INCH =400 FEET 0 200 400

JOB: 05000618
CAD: 05000818SU-11
DR: NLW
CH: MDE
BOOK: MA144-9
PG: 63-65
SHEET 3 OF 4
DATE: 07-18-08
FILE CODE: SU-11

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DESCRIPTION OF A 33.58 ACRE PARCEL OF LAND

Commencing at the Northwest Corner of Section 2, being part of Sections 34 & 35, T12N, R4E, and part of Sections 2 & 3, T11N, R4E, City of Saginaw, Saginaw County, Michigan; thence N89°38'51"W 799.20 feet; thence N00°07'03"W 812.05 feet; thence S89°39'56"E 453.71 feet; thence North 00°08'29"E 499.70 feet; thence S89°40'47"E 349.80 feet; thence S00°10'11"W 524.17 feet; thence S89°35'00"E 93.18 feet for a PLACE OF BEGINNING; thence S89°35'00"E 207.15 feet; thence N00°07'58"E 28.14 feet; thence N82°28'14"E 118.92 feet; thence S88°57'13"E 211.54 feet; thence 286.39 feet along the arc of a 2867.43 foot radius circular curve to the right, with a central angle of 05°43'21", having a chord which bears S82°49'03"E 286.27 feet; thence S81°30'00"E 824.74 feet; thence S01°57'47"E 655.90 feet; thence S84°08'50"W 689.95 feet; thence S89°32'20"W 358.09 feet; thence S83°33'58"W 482.42 feet; thence 329.75 feet along the arc of a 204.55 foot radius circular curve to the right, with a central angle of 92°21'50", having a chord which bears N53°31'36"W 295.19 feet; thence N05°11'42"W 547.12 feet; thence 264.35 feet along the arc of a 164.91 foot radius circular curve to the right, with a central angle of 91°50'42", having a chord which bears N39°53'06"E 236.94 feet to the Place of Beginning. Containing 33.58 acres of land, more or less, subject to easements, conditions, restrictions and exceptions of record, if any.

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1994 ADJUSTMENT

PROFESSIONAL SURVEYOR
NUMBER 49352

I HEREBY CERTIFY THAT I HAVE SURVEYED AND MAPPED THE LAND ABOVE PLATTED AND/OR DESCRIBED ON JULY 8 2008, AND THAT THE RATIO OF CLOSURE ON THE UNADJUSTED FIELD OBSERVATIONS OF SUCH SURVEY WAS 1/5000.

CLIENT GENERAL MOTORS	JOB: 05000518 / CAD: 05000518SU-11
SKETCH AND DESCRIPTION OF A 33.58 ACRE PARCEL OF LAND-TERMINATED GREEN POINT LANDFILL LOCATED IN	DR. NLW / CH. MDE
	BOOK MA144-9 / PG. 63-65
	SHEET 4 OF 4 / DATE: 07-18-08
	FILE CODE: SU-11
SECTIONS 2, 3, 34 & 35, T 11&12 N, R4E CITY OF SAGINAW SAGINAW COUNTY	ATWELL-HICKS www.atwell-hicks.com 866 850 4200
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EXHIBIT 5

DESCRIPTION OF ALLOWABLE USES

Examples of permitted industrial activities include manufacturing, utilities (including, but not limited to, electrical transmission lines), and industrial research and development. Examples of permitted commercial activities includes large scale commercial warehouse operations, wholesale lumber yards, storage, building supply warehouses, retail gas stations, auto service stations, auto dealerships, retail, retail warehouses selling the majority of their merchandise indoors but including some limited storage or stockpiling of materials in an outdoor yard, repair and service establishments, small warehouse operations, professional offices, banks, credit unions, savings and loan institutions, publicly owned office buildings, and personal service establishments which perform services indoors.

Examples of activities which would not be permitted include, but are not limited to, day cares (except day-cares that are limited to indoor activities), schools, churches, convalescent or nursing homes, and hospitals.

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DECLARATION OF RESTRICTIVE COVENANT
EASTERN PROPERTY EXTENSION

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DRAFTED BY AND WHEN RECORDED
RETURN TO:

Todd C. Schebor, Esq.
Dykema Gossett PLLC
400 Renaissance Center
Detroit, Michigan 48243

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DECLARATION OF RESTRICTIVE COVENANT

MDEQ Reference No.: RC-RRD-[Yr]-[number]

This Declaration of Restrictive Covenant ("Restrictive Covenant") has been recorded with the Saginaw County Register of Deeds for the purpose of protecting public health, safety, welfare, and the environment by prohibiting or restricting activities that could result in unacceptable exposure to environmental contamination present at the property located in the City of Saginaw, County of Saginaw and legally described in Exhibit 1 attached hereto ("Property"). The Property is located adjacent to, and immediately to the east and south of the General Motors Corporation-Saginaw Malleable Iron Plant, Site I.D. 73000014 (the "Site") for which a remedial action plan is being conducted. The remedial action that is being implemented to address environmental contamination is fully described in the Remedial Action Plan, Saginaw Malleable Iron Plant Property and REALM, Inc., Green Point Landfill and Drum Remediation Area, dated July, 2008 ("RAP"), and submitted by General Motors Corporation ("GM"), Remediation And Liability Management, Inc. ("REALM, Inc.") and Waste Management, Inc. The Michigan Department of Environmental Quality ("MDEQ") approved the RAP on _____, __ 2009, pursuant to Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended ("NREPA"), MCL 324.20101 et seq.

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The RAP requires the recording of this Restrictive Covenant with the Saginaw County Register of Deeds to: 1) restrict unacceptable exposures to hazardous substances located on the Property that are associated with the Site; and 2) to prevent damage or disturbance of any element of the response activity constructed on the Property. The restrictions contained in this Restrictive Covenant are based upon information available to the MDEQ at the time the RAP was approved by the MDEQ. Failure of the response activities to achieve and maintain the criteria, exposure controls, and requirements specified in the RAP; future changes in the environmental condition of the Property or changes in the cleanup criteria developed under Act No. 399 of the Public Acts of 1976, being section 325.1005 of the Michigan Compiled Laws; the discovery of environmental conditions at the Property that were not accounted for in the RAP; or use of the Property in a manner inconsistent with the restrictions described herein, may result in this Restrictive Covenant not being protective of public health, safety, and welfare, and the environment.

Exhibit 2 provides a survey of the Property that is subject to the land use or resource use restrictions specified herein.

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Summary of Response Activities

Response activities have not been performed on the Property; however, the following response activities have been completed or will be completed within the vicinity of the Property as described in the remedial action plan approved by the department:

- Capping of the Green Point Landfill, which lies to the west of the Property.
- periodic monitoring and maintenance of the Green Point Landfill;
- completion of a remedial investigation and feasibility study;
- periodic monitoring of groundwater.

Definitions

"MDEQ" means the Michigan Department of Environmental Quality, its successor entities, and those persons or entities acting on its behalf.

"Owner" means at any given time the then current title holder of the Property or any portion thereof.

All other terms used in this document which are defined in Part 3, Definitions, of the NREPA; Part 201 of the NREPA; or the Part 201 Administrative Rules ("Part 201 Rules"), 1990 AACS R 299.5101 et seq., shall have the same meaning in this document as in Parts 3 and 201 of the NREPA and the Part 201 Rules, as of the date of filing of this Restrictive Covenant.

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NOW THEREFORE,

Declaration of Land Use and Resource Use Restrictions

Pursuant to the RAP and Consent Judgment #98-22686-CE-2 entered by the Circuit Court of Saginaw County, REALM, Inc. as Owner of the Property, hereby declares and covenants that the Property shall be subject to the following restrictions and conditions:

1. The Owner shall prohibit activities on the Property that may result in exposures above levels established in the RAP. These prohibited activities include:

a. No activities at the Property are allowed that may interfere with the Remedial Action, operation or maintenance, monitoring, or other measures necessary to assure the effectiveness and integrity of the Remedial Action, except that maintenance, repair and replacement of existing structures may be conducted. All such work shall be completed in accordance with the Michigan Occupational Safety and Health Act ("MiOSHA"), the federal Occupational Safety and Health Act ("OSHA"), and all other applicable local, state, and federal laws and regulations. All excavated soils and extracted fluids shall be managed in accordance with the requirements of Section 20107a of NREPA and other applicable local, state and federal laws and regulations.

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b. In order to restrict the use and consumption of groundwater, wells shall not be installed on the Property for extracting groundwater for potable or domestic uses. This provision does not prohibit installation of wells for: environmental study, monitoring, or remediation; dewatering of excavations; non-contact cooling water; ground water heat pumps; or for emergency purposes, provided that the installation and operation of such wells is in compliance with applicable federal, state and local laws and regulations and the fluids are managed in accordance with the requirements of Section 20107a of NREPA and other applicable local, state and federal laws and regulations.

2. Permanent Markers. The Owner shall not remove, cover, obscure, or otherwise alter or interfere with the permanent markers placed at the locations noted in Exhibit 2. The Owner shall keep vegetation and other materials clear of the permanent markers to assure that the markers are readily visible.

3. Access. The Owner shall grant to the MDEQ, GM and REALM, Inc. and their designated representatives the right to enter the Property at reasonable times for the purpose of determining and monitoring compliance with the RAP, including the right to take samples, inspect the operation of the response activities and, inspect any records relating thereto, and to perform any actions necessary to maintain compliance with Part 201 and the RAP.

4. Notice. The Owner shall provide notice to the MDEQ, GM and REALM, Inc. of the Owner's intent to transfer any interest in the Property at least fourteen (14) business days prior to consummating the conveyance. A conveyance of title, easement, or other interest in the Property shall not be consummated by the Owner without adequate and complete provision for compliance with the terms and conditions of this Restrictive Covenant and the applicable provisions of Section 20116 of the NREPA. The notice required to be made to the MDEQ under this Paragraph shall be made to: Director, MDEQ, P.O. Box 30473, Lansing, Michigan 48909-7973; and shall include a statement that the notice is being made pursuant to the requirements of this Restrictive Covenant, MDEQ Reference Number RC-RRD-[YR]-[number]. A copy of this Restrictive Covenant shall be provided to all future owners, heirs, successors, lessees, easement holders, assigns, and transferees by the person transferring the interest. The notice required to be made to GM under this Paragraph shall be made to: Cheryl Hiatt, WFG – Remediation, Engineering Center – West, 30200 Mound Road, Mail code: 480-111-W60, Warren, MI 48090 The notice required to be made to REALM, Inc. under this Paragraph shall be made to: William McFarland, WFG – Remediation, Engineering Center – West, 30200 Mound Road, Mail code: 480-111-W60, Warren, MI 48090.

5. Term and Enforcement of Restrictive Covenant. This Restrictive Covenant shall run with the Property and shall be binding on the Owner; future owners; and all current and future successors, lessees, easement holders, their assigns, and their authorized agents, employees, or persons acting under their direction and control. This Restrictive Covenant may only be modified or rescinded with the written approval of the MDEQ, GM and REALM, Inc.

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The State of Michigan, through the MDEQ, GM and REALM, Inc. may enforce the restrictions set forth in this Restrictive Covenant by legal action in a court of competent jurisdiction.

6. Severability. If any provision of this Restrictive Covenant is held to be invalid by any court of competent jurisdiction, the invalidity of such provision shall not affect the validity of any other provisions hereof, and all such other provisions shall continue unimpaired and in full force and effect.

7. Authority to Execute Restrictive Covenant . The undersigned person executing this Restrictive Covenant is the Owner, or has the express written permission of the Owner, and represents and certifies that he or she is duly authorized and has been empowered to execute and deliver this Restrictive Covenant.

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IN WITNESS WHEREOF, REALM, Inc. has caused this Restrictive Covenant to be executed on this_____day of_____, 2009.

REALM, Inc.

By: _____
(Signature)

Name: _____
Print or Type Name

Its: _____
Title

STATE OF MICHIGAN
COUNTY OF WAYNE

The foregoing instrument was acknowledged before me this ____day of _____, 2009 by _____ of REALM, Inc., a foreign corporation, on behalf of the corporation.

_____
Notary Public

Commissioned in Wayne County, Michigan

My Commission Expires: _____

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EXHIBIT 1

LEGAL DESCRIPTION OF PROPERTY

DESCRIPTION OF A 48.18 ACRE PARCEL OF LAND (REALM INC. EAST PROPERTY EXTENSION)

Commencing at a found monument at the center-line intersections of Salt Road (66.00 feet wide) and Sylvan Road (60.00 feet wide) being part of Section 35, T12N, R4E, and part of Section 2, T11N, R4E, City of Saginaw, Saginaw County, Michigan; thence N41°13'20"E 53.66 feet along the center-line of said Salt Road; thence S48°46'40"E 33.00 feet perpendicular to said center-line of said Salt Road; thence N41°13'20"E 155.86 feet along the Southeasterly Right-of-Way line of said Salt Road; thence S56°24'15"E 100.97 feet; thence S79°30'05"E 162.10 feet; thence N13°24'11"E 160.56 feet; thence along the Southwesterly Right-of-Way line of vacated relocated Florence Street (66.00 feet wide) as recorded thereof in Liber 1269, Page 348 of Saginaw County Records, N76°42'45"W 186.19 feet to the said Southeasterly Right-of-Way line of said Salt Road, said point being S44°49'19"E 33.08 feet from a found monument at the center-line of said Salt Road; thence N41°13'20"E 2.12 feet along the Southeasterly Line of said Salt Road; thence N41°30'33"E 1174.43 feet continuing along said Southeasterly Right-of-Way line of said Salt Road to the Southwesterly Right-of-Way Line of West Center Street (130.00 feet wide) for the following seven (7) courses: [1]S77°59'54"E 348.21 feet; [2]S53°41'09"E 303.68 feet; [3]S35°19'18"E 1142.28 feet; [4]S89°15'47"E 87.93 feet; [5]S46°59'44"E 117.45 feet; [6]S66°53'15"E 55.70 feet; [7]S75°13'36"E 193.96 feet to an intermediate traverse point "A"; said point "A" being N75°13'36"W 81.73 feet from the United States Harbor Line as recorded thereof in Liber 2194 Page 1169 of Saginaw County Records; thence S75°13'36"E 25 feet, plus or minus, to the Westerly Edge of Water of the Saginaw River; thence the following three (3) courses along an intermediate traverse line from aforementioned Intermediate Traverse Point "A":[1] S03°21'51"E 548.91 feet, [2]S07°27'01"E 907.34 feet,[3] S10°55'18"E 798.66 feet to an Intermediate Traverse Point "B" for a **PLACE OF BEGINNING**; said point being N89°42'41"W 121.04 feet from said United States Harbor Line; thence continuing the following five (5) courses along said intermediate traverse line from aforementioned Intermediate Traverse Point "B": [1]S05°30'25"E 778.65 feet, [2]S02°43'02"E 1089.17 feet, [3]S03°39'28"W 533.37 feet, [4]S23°13'59"W 253.27 feet, and [5]S37°25'26"W 190.20 feet to said Intermediate Traverse Point "C"; thence N35°25'55"W 157.00 feet; thence S79°47'14"W 419.78 feet; thence N01°57'47"W 2731.20 along the East line of Consumers Power Company Right-of-Way (72.00 feet wide) as recorded thereof in Liber 1106 Pages, 426 & 427; thence S89°40'46"E 720.87 feet to the PLACE OF BEGINNING. Containing 48.18 acres of land, more or less, subject to easements, conditions, restrictions and exceptions of record, if any.

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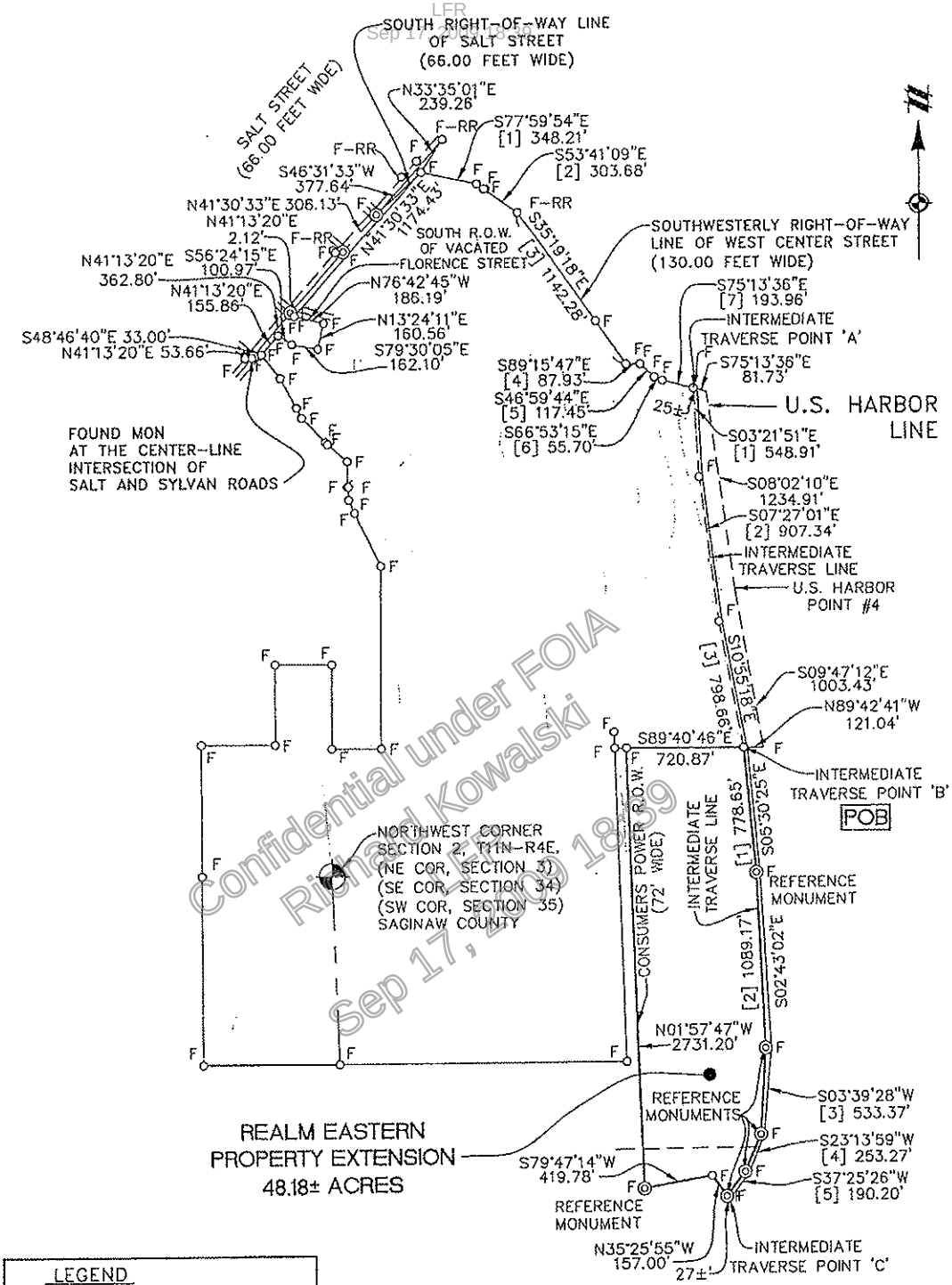
EXHIBIT 2

EASTERN PROPERTY EXTENSION SURVEY AND LOCATION FIGURE

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LEGEND

O_F	FOUND IRON PIPE
O_S	SET IRON PIPE
$◎_F$	FOUND CONCRETE MONUMENT
POB	PLACE OF BEGINNING
R/W	RIGHT-OF-WAY

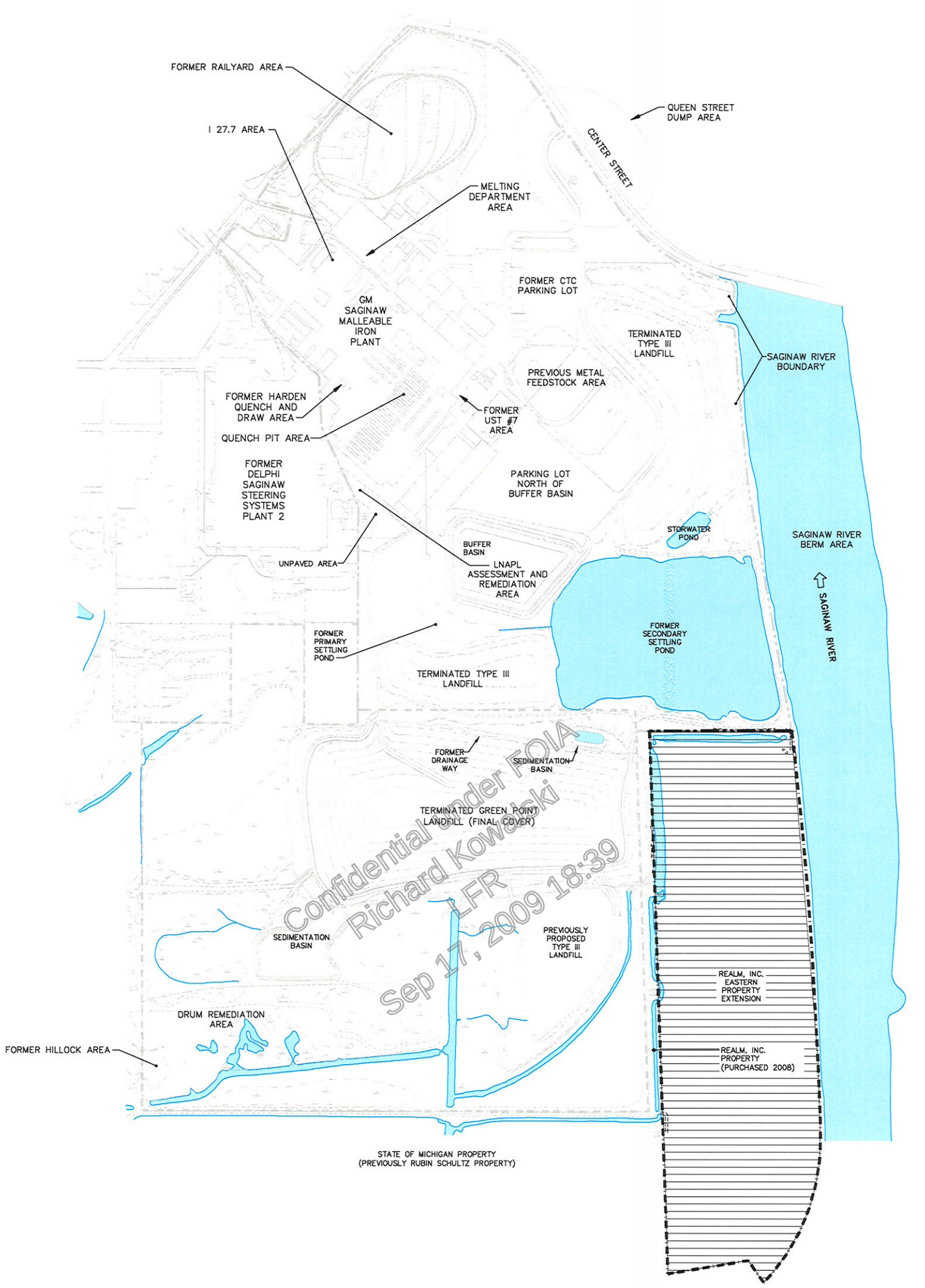
CLIENT: GENERAL MOTORS	JOB: 05000618	CAD: 08003152SU-18
SKETCH AND DESCRIPTION OF A 48.18 ACRE PARCEL OF LAND-REALM EASTERN PROPERTY EXTENSION LOCATED IN	DR.: BAL	CH.: DLN
	BOOK	PG.
SECTIONS 2, 3, 34 & 35, T11&12N, R4E CITY OF SAGINAW SAGINAW COUNTY, MICHIGAN	SHEET 1 OF 2	DATE: 5/13/09
	FILE CODE: SU-0-18	
SCALE: 1 INCH =800 FEET (0 400 800)	ATWELL-HICKS www.atwell-hicks.com 866 850 4200	

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NOTES:

1. THIS PHOTOGRAMMETRIC BASE MAP FOR THE GM SAGINAW MALLEABLE IRON PLANT AND DELPHI SAGINAW STEERING SYSTEMS PLANT 2 PROPERTIES WAS PREPARED BY LOCKWOOD MAPPING, INC. OF ROCHESTER, NEW YORK. AERIAL PHOTOGRAPHY WAS CONDUCTED ON 11/11/94. ORIGINAL LOCKWOOD MAP WAS AT A SCALE OF 1"=100' AND WAS INTERPRETED FOR TWO-FOOT CONTOURS.
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3. VERTICAL DATUM REFERENCED TO NGVD OF 1929, HORIZONTAL DATUM REFERENCED TO MICHIGAN SPC-NAD 1983.
4. PROPERTY BOUNDARY FOR REALM, INC, DIGITIZED FROM SPICER GROUP DRAWING NO. A-21854-1, DATED 3/27/98.
5. BASE MAP INFORMATION SOUTH OF MAIN REALM, INC. PROPERTY LINE FROM AIR-LAND SURVEYS, INC. PHOTO DATE 11/90, MAPPING DATE 10/91.

LEGEND:

- GM SAGINAW MALLEABLE IRON PLANT PROPERTY LINE (APPROX.)
- REALM, INC. PROPERTY LINE (APPROX.)
- UNPAVED ROAD
- GROUND SURFACE ELEVATION CONTOUR (10 FT INTERVAL)
- FENCE LINE
- SWAMPY AREA
- AREA SUBJECT TO RESTRICTIVE COVENANT THAT PROHIBITS THE INSTALLATION OF POTABLE WATER SUPPLY WELLS.

0 300' 600'
GRAPHIC SCALE

SAGINAW MALLEABLE IRON PLANT PROPERTY,
GREEN POINT LANDFILL, AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN
REMEDIAL ACTION PLAN

AREAS SUBJECT TO PROPOSED RESTRICTIVE COVENANTS EASTERN PROPERTY EXTENSION

ARCADIS

FIGURE
1

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DRAFT 12-31-08

DECLARATION OF RESTRICTIVE COVENANT
FORMER CONSUMERS PROPERTY

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DRAFTED BY AND WHEN RECORDED
RETURN TO:

Todd C. Schebor, Esq.
Dykema Gossett PLLC
400 Renaissance Center
Detroit, Michigan 48243

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DRAFT 12-31-08

DECLARATION OF RESTRICTIVE COVENANT

MDEQ Reference No.: RC-RRD-[Yr]-[number]

This Declaration of Restrictive Covenant ("Restrictive Covenant") has been recorded with the Saginaw County Register of Deeds for the purpose of protecting public health, safety, welfare, and the environment by prohibiting or restricting activities that could result in unacceptable exposure to environmental contamination present at the property located in the City of Saginaw, County of Saginaw and legally described in Exhibit 1 attached hereto ("Property"). The Property is located adjacent to, and immediately to the east and south of the General Motors Corporation-Saginaw Malleable Iron Plant, Site I.D. 73000014 (the "Site") for which a remedial action plan is being conducted. The remedial action that is being implemented to address environmental contamination is fully described in the Remedial Action Plan, Saginaw Malleable Iron Plant Property and REALM, Inc., Green Point Landfill and Drum Remediation Area, dated July 2008 ("RAP"), and submitted by General Motors Corporation ("GM"), Remediation And Liability Management, Inc. ("REALM, Inc.") and Waste Management, Inc. The Michigan Department of Environmental Quality ("MDEQ") approved the RAP on _____, __ 2009, pursuant to Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended ("NREPA"), MCL 324.20101 et seq.

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The RAP requires the recording of this Restrictive Covenant with the Saginaw County Register of Deeds to: 1) restrict unacceptable exposures to hazardous substances located on the Property that are associated with the Site; and 2) to prevent damage or disturbance of any element of the response activity constructed on the Property. The restrictions contained in this Restrictive Covenant are based upon information available to the MDEQ at the time the RAP was approved by the MDEQ. Failure of the response activities to achieve and maintain the criteria, exposure controls, and requirements specified in the RAP; future changes in the environmental condition of the Property or changes in the cleanup criteria developed under Act No. 399 of the Public Acts of 1976, being section 325.1005 of the Michigan Compiled Laws; the discovery of environmental conditions at the Property that were not accounted for in the RAP; or use of the Property in a manner inconsistent with the restrictions described herein, may result in this Restrictive Covenant not being protective of public health, safety, and welfare, and the environment.

Exhibit 2 provides a survey of the Property that is subject to the land use or resource use restrictions specified herein. The Property is currently occupied with electrical transmission lines and an easement is held by the Michigan Electric Transmission Company, LLC ("METC").

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Summary of Response Activities

The following response activities have been completed or will be completed as described in the remedial action plan approved by the department:

- Capping of the Green Point Landfill, which lies to the west of the Property.
- The cap for the Green Point Landfill extends onto the Property;
- periodic monitoring and maintenance of the Green Point Landfill;

Definitions

"MDEQ" means the Michigan Department of Environmental Quality, its successor entities, and those persons or entities acting on its behalf.

"Owner" means at any given time the then current title holder of the Property or any portion thereof.

All other terms used in this document which are defined in Part 3, Definitions, of the NREPA; Part 201 of the NREPA; or the Part 201 Administrative Rules ("Part 201 Rules"), 1990 AACS R 299.5101 et seq., shall have the same meaning in this document as in Parts 3 and 201 of the NREPA and the Part 201 Rules, as of the date of filing of this Restrictive Covenant.

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NOW THEREFORE,

Declaration of Land Use and Resource Use Restrictions

Pursuant to the RAP and Consent Judgment #98-22686-CE-2 entered by the Circuit Court of Saginaw County, REALM, Inc. as Owner of the Property, hereby declares and covenants that the Property shall be subject to the following restrictions and conditions:

1. The Owner shall prohibit activities on the Property that may result in exposures above levels established in the RAP. These prohibited activities include:

a. No activities at the Property are allowed that may interfere with the Remedial Action, operation or maintenance, monitoring, or other measures necessary to assure the effectiveness and integrity of the Remedial Action, except that maintenance, repair and replacement of existing structures may be conducted. All such work will be completed in accordance with the Michigan Occupational Safety and Health Act ("MiOSHA"), the federal Occupational Safety and Health Act ("OSHA"), and all other applicable local, state, and federal laws and regulations. All excavated soils and extracted fluids shall be managed in accordance with the requirements of Section 20107a of NREPA and other applicable local, state and federal laws and regulations.

b. In order to restrict the use and consumption of groundwater, wells shall not be installed on the Property for extracting groundwater for potable or domestic uses. This provision does not prohibit installation of wells for: environmental study,

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monitoring, or remediation; dewatering of excavations; non-contact cooling water; ground water heat pumps; or for emergency purposes, provided that the installation and operation of such wells is in compliance with applicable federal, state and local laws and regulations and the fluids are managed in accordance with the requirements of Section 20107a of NREPA and other applicable local, state and federal laws and regulations.

c. No subsurface footings, utilities or structures of any type ("Subsurface Structures") may be installed except for maintenance, repair replacement or removal of existing structures, and except as consistent with, and allowed by, the RAP in order to prevent damage to the Green Point Landfill Cap, which extends onto the Property as shown in Exhibit 2. All such work shall be completed in accordance with MiOSHA, OSHA, and all other applicable local, state, and federal laws and regulations. All excavated soils and extracted fluids shall be managed in accordance with the requirements of Section 20107a of NREPA and other applicable local, state and federal laws and regulations.

2. Cap Maintenance and Repair. The Owner shall notify GM and REALM, Inc. in advance, or alternatively as soon as practicable, of any damage or changes caused by the Owner to the cap. GM and/or REALM, Inc. shall repair the cap and properly handle any residual soils in accordance with the applicable requirements of the RAP; Section 20120c of the NREPA; Part 111, Hazardous Waste Management, of the NREPA; Subtitle C of the Resource Conservation and Recovery Act, 42 U.S.C. Section 6901 et seq.; the administrative rules promulgated thereunder; and all other relevant state and federal laws.

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3. Permanent Markers. The Owner shall not remove, cover, obscure, or otherwise alter or interfere with the permanent markers placed at the locations noted in Exhibit 2. The Owner shall keep vegetation and other materials clear of the permanent markers to assure that the markers are readily visible.

4. Access. The Owner shall grant to the MDEQ, GM and REALM, Inc. and their designated representatives the right to enter the Property at reasonable times for the purpose of determining and monitoring compliance with the RAP, including the right to take samples, inspect the operation of the response activities and, inspect any records relating thereto, and to perform any actions necessary to maintain compliance with Part 201 and the RAP.

5. Notice. The Owner shall provide notice to the MDEQ, GM and REALM, Inc. of the Owner's intent to transfer any interest in the Property at least fourteen (14) business days prior to consummating the conveyance. A conveyance of title, easement, or other interest in the Property shall not be consummated by the Owner without adequate and complete provision for compliance with the terms and conditions of this Restrictive Covenant and the applicable provisions of Section 20116 of the NREPA. The notice required to be made to the MDEQ under this Paragraph shall be made to: Director, MDEQ, P.O. Box 30473, Lansing, Michigan 48909-7973; and shall include a statement that the notice is being made pursuant to the requirements of this Restrictive Covenant, MDEQ Reference Number RC-RRD-[YR]-[number]. A copy of this Restrictive Covenant shall be provided to all future owners, heirs, successors,

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lessees, easement holders, assigns, and transferees by the person transferring the interest. The notice required to be made to GM under this Paragraph shall be made to: Cheryl Hiatt, WFG – Remediation, Engineering Center – West, 30200 Mound Road, Mail code: 480-111-W60, Warren, MI 48090 The notice required to be made to REALM, Inc. under this Paragraph shall be made to: William McFarland, WFG – Remediation, Engineering Center – West, 30200 Mound Road, Mail code: 480-111-W60, Warren, MI 48090.

6. Term and Enforcement of Restrictive Covenant. This Restrictive Covenant shall run with the Property and shall be binding on the Owner; future owners; and all current and future successors, lessees, easement holders, their assigns, and their authorized agents, employees, or persons acting under their direction and control. This Restrictive Covenant may only be modified or rescinded with the written approval of the MDEQ, GM and REALM, Inc.

The State of Michigan, through the MDEQ, GM and REALM, Inc. may enforce the restrictions set forth in this Restrictive Covenant by legal action in a court of competent jurisdiction.

7. Severability. If any provision of this Restrictive Covenant is held to be invalid by any court of competent jurisdiction, the invalidity of such provision shall not affect the validity of any other provisions hereof, and all such other provisions shall continue unimpaired and in full force and effect.

8. Authority to Execute Restrictive Covenant. The undersigned person executing this Restrictive Covenant is the Owner, or has the express written permission of the Owner, and represents and certifies that he or she is duly authorized and has been empowered to execute and deliver this Restrictive Covenant.

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IN WITNESS WHEREOF, REALM, Inc. has caused this Restrictive Covenant to be executed on this_____day of_____, 2009.

REALM, Inc.

By: _____
(Signature)

Name: _____
Print or Type Name

Its: _____
Title

STATE OF MICHIGAN
COUNTY OF WAYNE

The foregoing instrument was acknowledged before me this ____day of _____, 2009 by _____ of REALM, Inc., a foreign corporation, on behalf of the corporation.

_____
Notary Public

Commissioned in Wayne County, Michigan

My Commission Expires: _____

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EXHIBIT 1

LEGAL DESCRIPTION OF PROPERTY

PARCEL OF LAND LOCATED IN THE CITY OF SAGINAW, SAGINAW COUNTY MORE PARTICULARLY DESCRIBED AS FOLLOWS:

A STRIP OF LAND 72 FEET WIDE IN SECTION 2, T11N, R4E, AND IN SECTION 35, T12N, R4E, DESCRIBED AS FOLLOWS: TO FIND THE PLACE OF BEGINNING OF SAID LAND COMMENCE AT THE W 1/4 POST OF SAID SECTION 2; RUN THENCE N 1° 30' W ALONG THE W LINE OF SAID SECTION 2, 176.33 FEET TO A POINT ON THE N'LY LINE OF PROPERTY CONVEYED BY SAID FIRST PARTIES HEREIN TO CONSUMERS POWER COMPANY BY A WARRANTY DEED DATED JANUARY 14, 1964; THENCE N 80° 14' 30" E ALONG THE N'LY LINE OF SAID PROPERTY HERETOFORE CONVEYED TO CONSUMERS POWER COMPANY 1,771.53 FEET TO THE PLACE OF BEGINNING OF SAID LAND; RUNNING THENCE N 1° 30' W PARALLEL WITH THE W LINE OF SAID SECTION 2, 1,965.72 FEET TO A POINT ON THE N LINE OF SAID SECTION 2, 1,754.31 FEET DISTANT E'LY OF AND MEASURED ALONG THE N LINE OF SAID SECTION 2 FROM THE NW CORNER THEREOF; THENCE CONTINUING N 1° 30' W INTO SAID SECTION 35, 778.65 FEET TO A POINT ON THE S'LY LINE OF LAND NOW OR FORMERLY OWNED BY GENERAL MOTORS CORPORATION, SAID POINT BEING 1,725.3 FEET DISTANT FROM AND MEASURED AT RIGHT ANGLES TO THE W LINE OF SAID SECTION 35; THENCE S 89° 5' E ALONG THE S'LY LINE OF SAID LAND NOW OR FORMERLY OWNED BY GENERAL MOTORS CORPORATION 72.06 FEET; THENCE S 1° 30' E PARALLEL WITH THE FIRST COURSE OF THIS DESCRIPTION 778.25 FEET TO THE S LINE OF SAID SECTION 35; THENCE CONTINUING S 1° 30' E 1,952.78 FEET TO A POINT ON THE N'LY LINE OF SAID PROPERTY HERETOFORE CONVEYED BY FIRST PARTIES TO CONSUMERS POWER COMPANY; THENCE S 80° 14' 30" W ALONG SAID PROPERTY HERETOFORE CONVEYED TO CONSUMERS POWER COMPANY 72.74 FEET TO THE PLACE OF BEGINNING.

Tax ID#: 19-2258-00100

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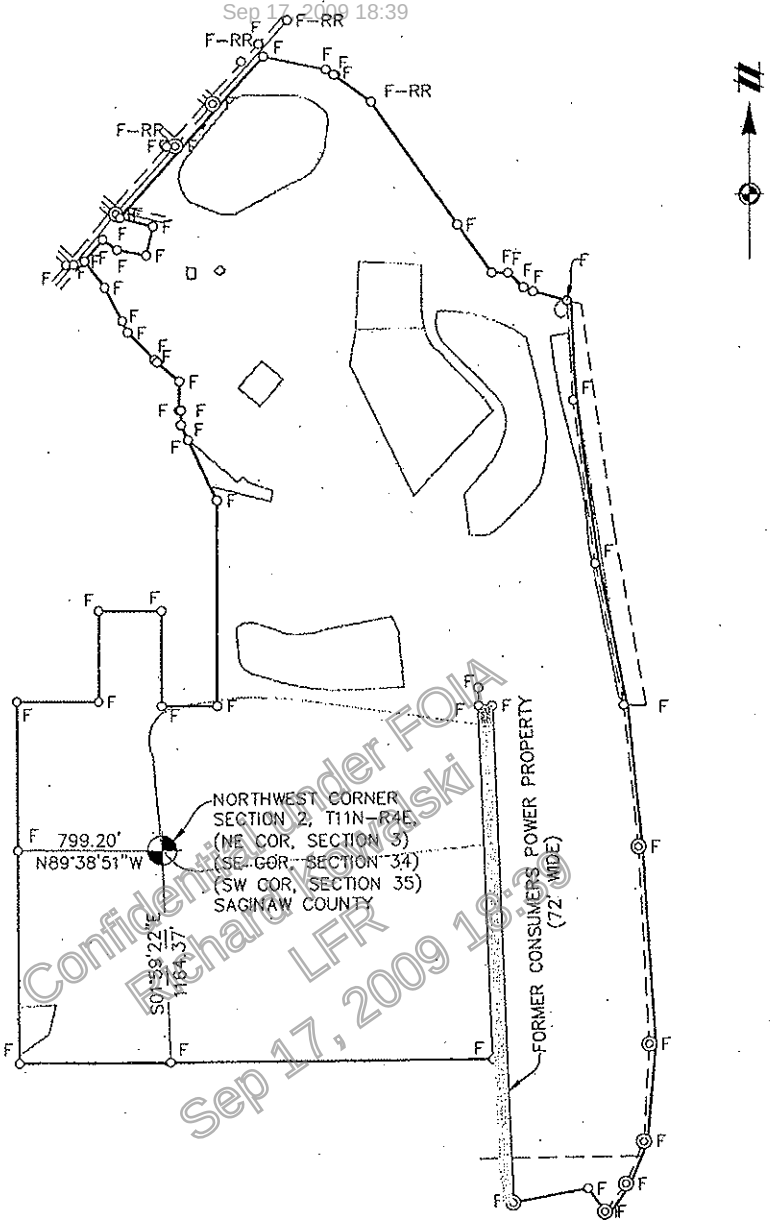
EXHIBIT 2

FORMER CONSUMERS PROPERTY SURVEY AND LOCATION FIGURE

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NOTES:

PROVIDED LEGAL DESCRIPTION DOES NOT MATHEMATICALLY CLOSE FOR 0.15'.

NOT SURVEYED BY ATWELL-HICKS.

LEGEND	
POB	PLACE OF BEGINNING
R/W	RIGHT-OF-WAY

CLIENT: GENERAL MOTORS

SKETCH AND DESCRIPTION OF A 72' WIDE FORMER CONSUMERS ENERGY PROPERTY LOCATED IN

SECTIONS 2, 3, 34 & 35, T11&12N, R4E
CITY OF SAGINAW
SAGINAW COUNTY, MICHIGAN

SCALE: 1 INCH = 800 FEET (0 400 800)

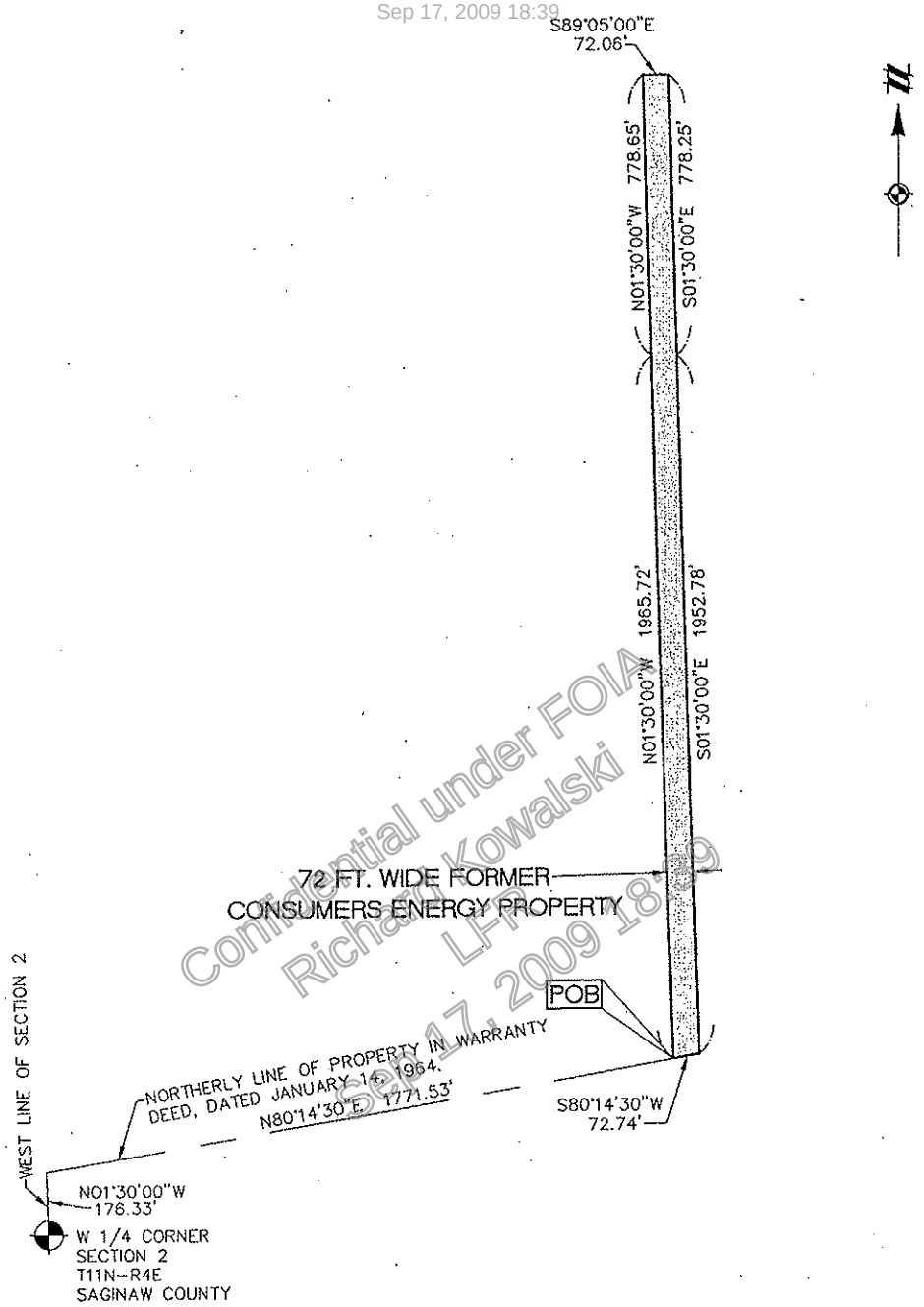
JOB: 05000618 | CAD: 08003152SU-19
DR.: BAL | CH.: DJG/DLN
BOOK: | PG.:
SHEET 1 OF 3 | DATE: 5/13/09
FILE CODE: SU-0-19

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866 650 4200
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Engineering Surveying Planning
Environmental Ecological Water Resources

REV: 5/29/09 DLN

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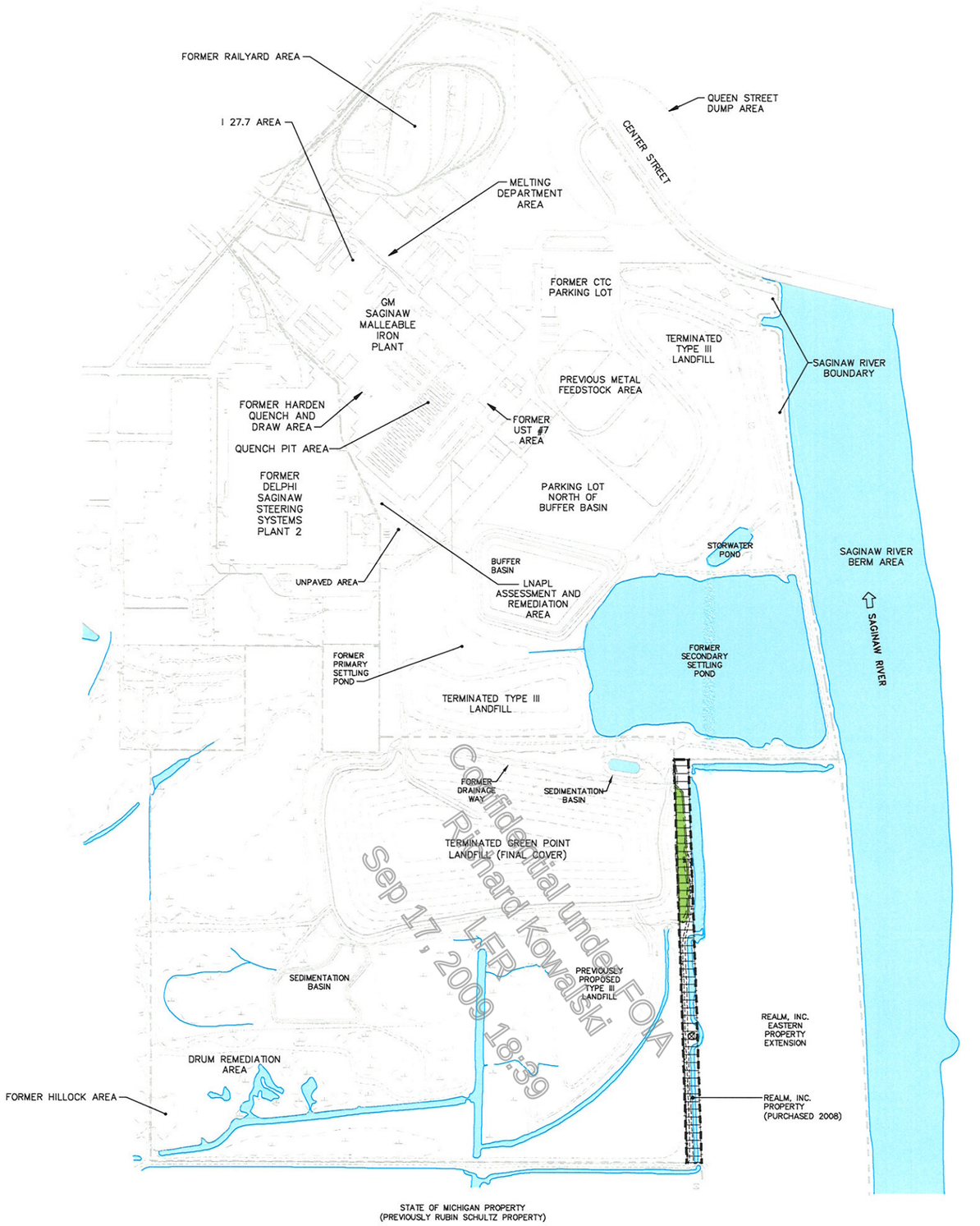
LEGEND	
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R/W	RIGHT-OF-WAY

CLIENT: GENERAL MOTORS	JOB: 05000618	CAD: 08003152SU-19
SKETCH AND DESCRIPTION OF A 72' WIDE FORMER CONSUMERS ENERGY PROPERTY LOCATED IN SECTIONS 2, 3, 34 & 35, T11&12N, R4E CITY OF SAGINAW SAGINAW COUNTY, MICHIGAN	DR. BAL	CH. DJG/DLN
	BOOK	PG.
	SHEET 2 OF 3	DATE: 5/13/09
	FILE CODE: SU-0-19	
SCALE: 1 INCH = 400 FEET (0 200 400)	ATWELL-HICKS www.atwell-hicks.com 866 850 4200	
	ARIZONA FLORIDA ILLINOIS MICHIGAN OHIO PENNSYLVANIA TENNESSEE — Engineering Surveying Planning — Environmental Ecological Water Resources	

REV: 5/29/09 DLN

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LEGEND:

- GM SAGINAW MALLEABLE IRON PLANT PROPERTY LINE (APPROX.)
- REALM, INC. PROPERTY LINE (APPROX.)
- UNPAVED ROAD
- GROUND SURFACE ELEVATION CONTOUR (10 FT INTERVAL)
- FENCE LINE
- SWAMPY AREA
- AREA SUBJECT TO RESTRICTIVE COVENANT THAT PROHIBITS THE INSTALLATION OF POTABLE WATER SUPPLY WELLS.
- AREA SUBJECT TO RESTRICTIVE COVENANT THAT PLACES RESTRICTIONS ON INTRUSIVE ACTIVITIES AND PROVIDES FOR THE MAINTENANCE OF CAP OR COVER MATERIALS.

0 300' 600'
GRAPHIC SCALE

SAGINAW MALLEABLE IRON PLANT PROPERTY,
GREEN POINT LANDFILL, AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN
REMEDIAL ACTION PLAN

AREAS SUBJECT TO PROPOSED RESTRICTIVE COVENANTS REALM PROPERTY (FORMERLY OWNED BY CONSUMERS)

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FIGURE
1

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Appendix E

Work Plan for Implementing Remedial Action at the Drum Remediation Area/Former Hillock Area

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Appendix E

Work Plan for Implementing Remedial Action at Saginaw River Boundary Area and Drum Remediation Area/ Former Hillock Area

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General Motors Corporation Saginaw Malleable Iron Plant Property, and REALM, Inc. Green Point Landfill and Drum Remediation Area Saginaw, Michigan

July 30, 2008

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1. Introduction

1.1 General

This document has been prepared to supplement the Remedial Action Plan (RAP) for the General Motors Corporation (GM) Saginaw Malleable Iron Plant, and Remediation and Liability Management Company, Inc. (REALM) Green Point Landfill and Drum Remediation Area (DRA) located in Saginaw, Michigan (the Site). For information pertaining to Site location, ownership, and past and current uses of the property, refer to Section 1 of the RAP. This document presents a Work Plan for implementing remedial action (RA) activities at the following two Site areas:

- Saginaw River Berm Area; and
- DRA/Former Hillock Area.

The RA activities described in this Work Plan were initially outlined in the Feasibility Study Report (FS Report) prepared for the Site, dated July 29, 2003. In general, the RA activities will consist of the following:

- implementation of erosion control measures at the Saginaw River Berm Area; and
- capping of the drainage tile discharging volatile organic compound- (VOC-) impacted water from an offsite source onto the DRA/Former Hillock Area.

For a detailed description of the above-referenced areas and associated environmental concerns refer to the RAP and other Site-related documents previously submitted to the MDEQ (including, but not limited to, the FS Report). Approximate locations of the Saginaw River Berm Area and DRA/Former Hillock Area within the Site are presented on Figure 1-2 of the RAP. A summary of the RA objectives is presented below.

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1.2 RA Objectives

1.2.1 Saginaw River Berm Area

Completion of erosion control measures along portions of the Saginaw River berm is not being completed to satisfy RA objectives established in the FS, but as part of plant maintenance activities to protect against erosion of the berm. The Saginaw River Berm Area erosion control activities are described in Section 2 of this Work Plan.

1.2.2 DRA/Former Hillock Area

A 6-inch-diameter subsurface concrete tile drain pipe extending from the neighboring property (previously Rubin Schultz property) onto the DRA/Former Hillock Area was observed during implementation of a test pit program in October 2000. Further investigation indicated that the pipe discharges VOC-impacted water from an offsite source into the DRA/Former Hillock Area.

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The objective of the RA is to mitigate the future direct discharge of VOC-impacted water from the offsite source onto the REALM, Inc. property. Since the source of water to the drain pipe is located upgradient of the Site, there is a concern that there may continue to be indirect Site impacts due to the migration of impacted water through the soil. However, blocking the drain pipe will mitigate future VOC impacts to soil and groundwater within the DRA/Former Hillock Area. The DRA/Former Hillock Area RA activities are described in Section 2 of this Work Plan.

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2. Description of RA Activities

2.1 Saginaw River Berm Area

The RA activities at the Saginaw River Berm Area will include implementation of erosion control measures, and placement of restrictive covenants on the Site, including the berm area.

2.1.1 Erosion Control Measures

Based on a visual review of the Saginaw River Berm Area, sections of the berm will be graded and vegetated to stabilize the berm and to address potential future erosion of the bank. Erosion of the berm was not identified in the Human Health Evaluation Report (HHE Report) (BBL, July 2003) or Ecological Risk Assessment Report (ERA Report) (Exponent, January 2003) as an unacceptable risk or as an area requiring action to achieve a Remedial Action Objective (RAO); however, it will be addressed during the RA activities. As needed, areas of the river berm will be graded to eliminate irregularities in the ground surface caused by precipitation runoff. These areas will then be seeded to establish a vegetative cover.

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2.1.2 Restrictive Covenants

In addition to the above-listed RA activities, restrictive covenants will be placed on the property to minimize the potential for future impacts to human health and the environment. A Site-wide restrictive covenant (which will include the Saginaw River Berm Area) will be imposed limiting future land use to limited industrial and limited commercial II activities and preventing installation of drinking water wells. An additional restriction requires that any new roadways placed between the existing roadway and the river edge be paved or constructed with a minimum of six inches of gravel to limit the creation of dust. Annual inspections of the area will be completed to verify maintenance of any roadways and vegetation.

2.2 DRA/Former Hillock Area

To mitigate future impacts to the groundwater and subsurface soil in the vicinity of the DRA/Former Hillock Area by the offsite source of VOCs, the following RA activities will be implemented:

- capping of the pipe at the Site boundary (southwest portion of the site); and
- establishing restrictive covenants.

2.2.1 Capping of the Pipe

Soil surrounding the pipe at the Site boundary will be excavated to allow access to the 6-inch diameter drain pipe. Upon gaining access to the pipe, the pipe will be capped/sealed or removed at the Site boundary to minimize the potential for the offsite VOC-impacted water from discharging onto the REALM, Inc. property via the pipe. The excavated area will be backfilled, and the fill material will be compacted and graded. The

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excavation and backfilling activities will be conducted using conventional construction equipment (e.g., a backhoe or an excavator).

2.2.2 Restrictive Covenants

In addition to the above-listed RA activities, restrictive covenants will be placed on the property to minimize the potential for future impacts to human health and the environment. A Site-wide restrictive covenant (which will include the DRA/Former Hillock Area) will be imposed limiting future land use to limited industrial and limited commercial II activities and preventing installation of drinking water wells. In addition to the Site-wide restrictive covenant, the DRA/Former Hillock Area will be subject to restrictive covenants that address intrusive activity and building construction.

The restrictive covenants will specify that intrusive activities (e.g., soil excavation, utility location/relocation, groundwater extraction, etc.) would only be permitted following an assessment to ensure that excavation can be safely performed. In addition, prior to any building construction activities in the DRA Hillock area, potential volatilization of VOCs would be evaluated.

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Appendix F

Summary of Interim Response Activities Associated with East/West Ditch Filling and Removal of Manganese Impacted Soil in Saginaw River Berm, GMPT SMI

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Appendix F

Summary of Interim Response Activities Associated with East/West Ditch Filling and Removal of Manganese Impacted Soil in Saginaw River Berm, GMPT SMI

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General Motors Corporation
Saginaw Malleable Iron Plant Property, and
REALM, Inc. Green Point Landfill and
Drum Remediation Area
Saginaw, Michigan

July 30, 2008

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SUMMARY OF INTERIM RESPONSE ACTIVITIES ASSOCIATED WITH EAST/WEST DITCH FILLING AND REMOVAL OF MANGANESE IMPACTED SOIL IN SAGINAW RIVER BERM, GMPT SMI

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GENERAL MOTORS POWERTRAIN
SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

SEPTEMBER 2005
REF. NO. 7878 (20)
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1.0 INTRODUCTION

This report presents Conestoga-Rovers & Associates (CRA) summary of the manganese soil removal activities on the berm along Saginaw River and filling of the remaining recirculation channel for the old water recirculation system completed during September 2004 at the General Motors Powertrain Saginaw Malleable Iron (SMI) Plant (Site) in Saginaw, Michigan. Figure 1 presents the Site Location and Figure 2 presents the Site Plan. Interim responses summarized in this report include the removal of higher levels of manganese soil along the Saginaw River berm on the Site and the closure, by filling, of the remaining channel of the SMI Plant's former water recirculation system.

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2.0 BACKGROUND

During 2004, activities were completed to address the following outstanding issues:

1. The east/west channel was the last remaining portion of the SMI Plant's former water recirculation loop to be closed.
2. During the Remedial Investigation/Feasibility Study (RI/FS), soil in three areas along the Saginaw River Berm on the SMI Site was identified to exceed the generic residential particulate soil inhalation criteria for manganese (3,300 mg/kg) at soil boring locations SB-378, SB-380, and SB-381. The data for these sample locations are presented in Table 1.
3. A soil stockpile had been created during construction of the Crotty Street Mitigation Wetland in the REALM farm field next to the REALM Green Point Site. Table 2 presents data for the stockpile soil.

These areas are presented on Figures 1 and 2.

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3.0 2004 RESPONSE ACTIVITIES

3.1 FILLING OF EAST/WEST DITCH

The manganese-impacted soil excavated from the SB-378, SB-380, and SB-381 areas was placed in the bottom of the east/west ditch as part of the east/west ditch filling along with soil from the Crotty Street Mitigation Wetland soil stockpile. Figure 3 presents the manganese-impacted locations. These soils were placed in the bottom of the channel. Imported clean fill, along with a minimum of a 6 inch topsoil cover was placed over the berm and mitigation soils. The area was then re-seeded. A minimum of 2 feet of clean material covers the entire east/west ditch area.

Figures 4-7 present the design of the filling activities. Final design included a shallow swale to control stormwater runoff in the area and an area on the western edge, which could be turned into a wetland.

3.2 MANGANESE IMPACTED SOILS

Higher levels of manganese-impacted soils (presented on Figure 3) were excavated and placed on the bottom of the east/west former recirculation conveyance channel along with soil previously stockpiled during the construction of the Crotty Street Mitigation Wetland. Verification of remediation samples in the berm along the Saginaw River were collected from the bottom and sides of the three excavation areas. Verification sample locations are presented on Figures 8, 9, and 10. Verification sample results are presented in Tables 3, 4, and 5.

In the vicinity of SB-378, an initial excavation was completed to the dimensions of 130 feet long, 5 feet wide, and 1 foot deep. Verification sampling completed at the locations presented on Figure 8, indicated that samples from the south wall, north/east wall, and the floor of the excavation (3 samples) were reported at concentrations exceeding the Michigan Act 451, Part 201 Generic Residential Particulate Soil Inhalation Criteria (PSIC) for manganese. The excavation was expanded by 1 foot to the north, south, and east directions as well as extended 1 foot deeper (132 feet long by 6 feet wide by 2 feet deep). Verification samples were then collected in the expanded excavation from the south wall and north/east wall. All wall samples were reported at concentrations below residential PSIC, although they exceeded the generic industrial PSIC for manganese. Three floor samples were collected at depths representative of approximately 2 to 3 feet below ground surface (bgs). All of the samples collected from

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the excavation floor were reported at concentrations above residential PSIC for manganese. The excavation was subsequently backfilled with two feet of clean fill, eliminating the potential for exposure to the impacted soil on the floor of the excavation. Soil sample results are presented in Table 3, and on Figure 8.

In the vicinity of SB-380, an initial excavation was conducted to the dimensions of 90 feet long, 5 feet wide, and 1 foot deep. Verification sampling completed, at the locations presented on Figure 9, indicated that samples from the south wall, north-west wall, and the floor of the excavation (both samples) were reported at concentrations exceeding the residential PSIC for manganese. The excavation was expanded by 1 foot to the north, south, and west directions as well as extended 1 foot deeper (92 feet long by 6 feet wide by 2 feet deep). Verification samples were then collected in the expanded excavation from the south wall and north-west wall. All wall samples were reported at concentrations below the residential PSIC for manganese. Three floor samples were collected at depths representative of 2 to 3 feet bgs after backfilling. All of the samples collected from the excavation floor were reported at concentrations above the residential PSIC for manganese. The excavation was subsequently backfilled with two feet of clean fill, eliminating the potential for exposure to the impacted soil in the bottom of the excavation. Soil sample results are presented in Table 4, and on Figure 9.

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In the vicinity of SB-381, an initial excavation was conducted to the dimensions of 140 feet long, 5 feet wide, and 1 foot deep. Verification sampling completed, at the locations presented on Figure 10, indicated that samples from the north-east wall and the floor of the excavation (1 of 3 samples) were reported at concentrations exceeding the residential PSIC for manganese. The excavation was expanded by 1 foot in the north, south, and east directions as well as extended 1 foot deeper (142 feet long by 6 feet wide by 2 feet deep). Verification samples were then collected in the expanded excavation from the north-east wall and the excavation. All wall samples were reported at concentrations below the residential PSIC for manganese. The floor verification sample at the 2-foot depth exceeded the residential PSIC for manganese. The excavation was subsequently backfilled with two feet of clean fill, eliminating the potential for exposure to the impacted soil in the bottom of the excavation. Soil sample results are presented in Table 5, and on Figure 10.

All final verification sample results from the side walls of the excavation were reported at concentrations below the residential PSIC for manganese. Most of the sample results from the excavation floor were reported at concentrations above the residential PSIC criteria, and subsequently were covered with a minimum of two feet of clean fill, eliminating the exposure by particulate soil inhalation.

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3.3 CROTTY STREET MITIGATION STOCKPILE

The stockpile generated during the Crotty Street Mitigation was removed and was used to fill the bottom of the east/west recirculation conveyance channel under the clean imported fill and topsoil.

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4.0 SUMMARY

Mangenese impacted soils from an on-Site berm along the Saginaw River as well as soils from the Crotty Street wetland mitigation project were used to fill in the bottom of the remaining channel of the SMI former water recirculation system. These soils were capped by two feet of clean fill and topsoil and re-seeded. The channel was filled to allow a swale to control stormwater and a shallow wetland area to remain.

The Mangenese impacted areas were excavated to meet the MDEQ generic residential PSIC standard. Although the standard was not achieved in the floors of the excavations, 2 to 3 feet of fill was placed over the floors eliminating the pathway of residential particulate air inhalation for those areas.

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TABLE 1

TAL INORGANIC ANALYTICAL RESULTS
SAGINAW RIVER BERM
AREA OF PROPOSED SOIL EXCAVATION
SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

	SB-374	SB-375		SB-376	SB-377			SB-378		SB-379		SB-380		SB-381	
	(9.5 - 10.5')	(6.5 - 7.5')		(7 - 8')	(0 - 0.5')		(0.5 - 1')	(0 - 0.5')	(0.5 - 1')	(0 - 0.5')	(0.5 - 1')	(0 - 0.5')	(0.5 - 1')	(0 - 0.5')	(0.5 - 1')
	7/24/00	7/24/00		7/25/00	7/25/00		7/25/00	7/25/00	7/25/00	7/25/00	7/25/00	7/25/00	7/25/00	7/25/00	7/25/00
Constituents (µg/kg)	FS	FS	DUP	FS	FS	DUP	FS	FS	FS	FS	FS	FS	FS	FS	FS
Aluminum	7,080,000	5,090,000	4,160,000	5,500,000	13,700,000	11,400,000	4,060,000	6,300,000	22,500,000	9,030,000	4,390,000	12,100,000	25,200,000	14,700,000	27,900,000
Antimony	8,200 UJ	8,300 UJ	8,100 UJ	8,200 UJ	6,400 UJ	6,500 UJ	6,300 UJ	6,600 UJ	1,800 BJ	6,800 UJ	6,100 UJ	6,600 UJ	1,700 BJ	650 BJ	1,800 BJ
Arsenic	3,200 J	3,900	3,800 J	3,200	4,900 J	4,400	3,400 J	2,300 J	1,900 J	3,600 J	1,400 J	4,600 J	1,900 J	4,700 J	2,400 J
Barium	56,600	34,100	31,900	44,800	81,100	83,000	21,200	39,100	138,000	55,100	27,100	71,100	136,000	81,700	199,000
Beryllium	690 U	690 U	680 U	680 U	530 U	540 U	520 U	550 U	540 U	560 U	510 U	550 U	520 U	550 U	510 U
Cadmium	630 B	690 U	380 B	680 U	640	70 B	1,000	400 B	1,200	570	310 B	660	1,300	710	1,200
Calcium	36,000,000	37,400,000	33,500,000	31,600,000	16,500,000	16,200,000	17,100,000	14,300,000	101,000,000	17,300,000	14,300,000	16,400,000	100,000,000	24,100,000	163,000,000
Chromium	14,900	10,400 J	9,700	11,500 J	24,600	39,100 J	31,900	31,500	245,000	36,700	31,500	42,300	184,000	58,900	324,000
Cobalt	5,500 B	4,500 B	3,900 B	4,000 B	7,100	6,300	3,000 B	2,800 B	3,200 B	4,700 B	1,300 B	5,500	3,300 B	5,600	2,800 B
Copper	10,400	7,100	6,200	7,600	32,600	17,900	27,600	10,400	11,200	16,000	5,600	18,400	30,000	18,700	13,400
Cyanide, Total	690 U	690 U	680 U	680 U	530 U	540 U	520 U	550 U	540 U	560 U	510 U	550 U	520 U	550 U	510 U
Iron	16,500,000	10,000,000	10,200,000	9,280,000	18,800,000	18,200,000	38,400,000	13,800,000	37,200,000	17,500,000	9,800,000	19,500,000	40,200,000	19,400,000	32,800,000
Lead	5,600	3,900 U	3,400	4,300	11,700	11,800	2,600	5,900	4,900	9,600	3,500	16,500	24,400	13,800	44,000
Magnesium	17,300,000	12,900,000	11,800,000	13,700,000	7,380,000	5,330,000	1,190,000	2,220,000	1,780,000	3,650,000	588,000	4,580,000	1,790,000	5,300,000	1,990,000
Manganese	450,000	476,000 J	360,000	266,000 J	527,000	1,690,000 J	3,510,000	1,330,000	23,100,000	1,350,000	2,250,000	1,950,000	24,500,000	3,040,000	32,600,000
Mercury	230 J	140 U	34 BJ	140 U	28 BJ	110 U	100 UJ	33 BJ	110 UJ	54 BJ	100 UJ	56 BJ	26 BJ	39 BJ	11 BJ
Nickel	13,200	9,100	8,400	9,000	22,200	17,900	25,400	9,800	4,300	15,600	3,500 B	18,900	6,900 U	18,300	4,100 U
Potassium	1,100,000	907,000	631,000 B	942,000	2,210,000	1,450,000	381,000 B	905,000	2,440,000	1,180,000	374,000 B	1,770,000	2,850,000	2,310,000	2,760,000
Selenium	760	530 B	600 B	1,200	1,300	650	2,900	840	1,000 B G	1,200	560	1,200	1,300 B G	1,600	2,100 B G
Silver	1,400 U	1,000 U	1,400 U	1,400 U	1,100 U	1,100 U	220 B	1,100 U	540 B G	1,100 U	180 B	1,100 U	400 B	1,100 U	1,300 B
Sodium	687,000 U	692,000 U	678,000 U	681,000 U	532,000 U	539,000 U	521,000 U	548,000 U	1,640,000	563,000 U	507,000 U	553,000 U	2,380,000	550,000 U	547,000 U
Thallium	1,400 U	1,400 U	700 B	1,400 U	1,100 U	1,100 U	1,000 U	1,100 U	3,300 B G	1,100 U	1,000 U	1,100 U	10,400 U	1,100 U	10,200 U
Vanadium	17,200	13,300	11,400	14,200	29,000	25,600	9,700	13,700	41,400	19,900	8,900	23,200	25,600	28,600	37,000
Zinc	35,900 J	31,500 J	23,700 J	31,700 J	39,300 J	39,800 J	9,200 U	28,200 J	8,200 U	40,600 J	6,800 U	43,900 J	18,500 J	42,300 J	14,500 U

General Notes:

All concentrations in micrograms per kilogram (µg/kg); equivalent to parts per billion (ppb).

Detections are shown in bold.

Sample Type:

FS = Primary field sample.

DUP = Duplicate field sample.

Data Qualifiers:

B = (Inorganic) The analyte has been positively identified. The concentration is between the instrument detection limit and the required reporting limit.

G = Elevated reporting limit due to matrix interference.

J = The compound/constituent was positively identified; however, the associated numerical value is an estimated concentration only.

U = The compound/constituent was analyzed for but not detected. The associated value is the compound/constituent quantitation limit.

UJ = The compound/constituent was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.

ND = Not detected.

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TABLE 2
SOIL STOCKPILE DATA
GM SMI PLANT
SAGINAW, MICHIGAN

	Survey:	CROTTY	CROTTY	CROTTY	CROTTY	CROTTY	CROTTY	CROTTY	CROTTY	CROTTY	CROTTY
	Station:	A1	A2	A3	A4	A4	A5	A6	A7	B1	B2
	Date:	4/18/2000	4/18/2000	4/18/2000	4/17/2000	4/17/2000	4/17/2000	4/17/2000	4/17/2000	4/18/2000	4/18/2000
	Sample ID:	A1	A2	A3	A4A	A4B	A5	A6	A7	B1	B2
Chemical (dry wt)	Units	0 - 0 cm	0 - 0 cm	0 - 0 cm	0 - 0 cm	0 - 0 cm	0 - 0 cm	0 - 0 cm	0 - 0 cm	0 - 0 cm	0 - 0 cm
Inorganics											
Total solids (dry wt. as % of wet wt. or volume)	%	79.7	79.5	78.6	77.7	78.5	80.6	80.9	88.2	81.0	80.1
Arsenic	mg/kg	9.1	11.6	10.7	10.2	9.7	9.5	7.2	4.2	11.6	12.3
Barium	mg/kg	94.6	96.6	121	125	126	104	86.8	87.0	81.4	89.6
Cadmium	mg/kg	0.4	0.5	0.44	0.45	0.45	0.44	0.38	0.28	0.44	0.45
Chromium	mg/kg	16.4	26.1	24.7	23.7	22.5	22.4	17.3	77.5	17.7	18.7
Copper	mg/kg	13.3	16.2	15	14.4	13.9	14.4	13	15.5	14.6	15.3
Lead	mg/kg	16.6	20.2	17.3	17.2	16.1	17	13.9	26.0	18	17.9
Mercury (total)	mg/kg	0.07	0.07	0.07	0.06	0.06	0.07	0.07	0.05	0.07	0.08
Selenium	mg/kg	1.05 *U*	1.05 *U*	1.06 *U*	0.9 *U*	1.06 *U*	1.24 *U*	1.24 *U*	1.13 *U*	1.23 *U*	1.25 *U*
Silver	mg/kg	0.1 *J*	0.1 *J*	0.11 *J*	0.11 *J*	0.09 *J*	0.1 *J*	0.13 *J*	0.21 *J*	0.09 *J*	0.1 *J*
Zinc	mg/kg	57.3	70.8	67.4	72.2	69.1	74.4	59.3	62.9	62.4	65.4
PCDD/Fs											
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	pg/g										
1,2,3,4,6,7,8-Heptachlorodibenzofuran	pg/g										
1,2,3,4,7,8,9-Heptachlorodibenzofuran	pg/g										
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	pg/g										
1,2,3,4,7,8-Hexachlorodibenzofuran	pg/g										
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	pg/g										
1,2,3,6,7,8-Hexachlorodibenzofuran	pg/g										
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	pg/g										
1,2,3,7,8,9-Hexachlorodibenzofuran	pg/g										
1,2,3,7,8-Pentachlorodibenzo-p-dioxin	pg/g										
1,2,3,7,8-Pentachlorodibenzofuran	pg/g										
2,3,4,6,7,8-Hexachlorodibenzofuran	pg/g										
2,3,4,7,8-Pentachlorodibenzofuran	pg/g										
2,3,7,8-Tetrachlorodibenzo-p-dioxin	pg/g										
2,3,7,8-Tetrachlorodibenzofuran	pg/g										
Octachlorodibenzo-p-dioxin	pg/g										
Octachlorodibenzofuran	pg/g										
Total heptachlorodibenzo-p-dioxins	pg/g										
Total heptachlorodibenzofurans	pg/g										
Total hexachlorodibenzo-p-dioxins	pg/g										
Total hexachlorodibenzofurans	pg/g										
Total pentachlorodibenzo-p-dioxins	pg/g										
Total pentachlorodibenzofurans	pg/g										
Total tetrachlorodibenzo-p-dioxins	pg/g										
Total tetrachlorodibenzofurans	pg/g										
PAHs											
Acenaphthene	mg/kg	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*
Acenaphthylene	mg/kg	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*
Anthracene	mg/kg	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*
Benz[a]anthracene	mg/kg	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*
Benzo[a]pyrene	mg/kg	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*
Benzo[b]fluoranthene	mg/kg	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*
Benzo[ghi]perylene	mg/kg	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*
Benzo[k]fluoranthene	mg/kg	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*
Chrysene	mg/kg	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*
Dibenz[a,h]anthracene	mg/kg	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*
Fluoranthene	mg/kg	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3	0.3 *U*	0.3 *U*
Fluorene	mg/kg	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*
Indeno[1,2,3-cd]pyrene	mg/kg	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*

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TABLE 2
SOIL STOCKPILE DATA
GM SMI PLANT
SAGINAW, MICHIGAN

	Survey:	CROTTY	CROTTY	CROTTY	CROTTY	CROTTY	CROTTY	CROTTY	CROTTY	CROTTY	CROTTY
	Station:	A1	A2	A3	A4	A4	A5	A6	A7	B1	B2
	Date:	4/18/2000	4/18/2000	4/18/2000	4/17/2000	4/17/2000	4/17/2000	4/17/2000	4/17/2000	4/18/2000	4/18/2000
	Sample ID:	A1	A2	A3	A4A	A4B	A5	A6	A7	B1	B2
Chemical (dry wt)	Units	0 - 0 cm	0 - 0 cm	0 - 0 cm	0 - 0 cm	0 - 0 cm	0 - 0 cm	0 - 0 cm	0 - 0 cm	0 - 0 cm	0 - 0 cm
Naphthalene	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Phenanthrene	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Pyrene	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
PCBs											
Aroclor® 1016	mg/kg	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor® 1221	mg/kg	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor® 1232	mg/kg	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor® 1242	mg/kg	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor® 1248	mg/kg	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor® 1254	mg/kg	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.23	0.1 U	0.1 U
Aroclor® 1260	mg/kg	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Pesticides											
2,4,5-T	µg/kg	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
2,4-D	µg/kg	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
2,4-DB	µg/kg	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
2-sec-butyl-4,6-dinitrophenol	µg/kg	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Dalapon	µg/kg	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Dicamba	µg/kg	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Dichlorprop	µg/kg	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
MCPA	µg/kg	25,000 U	25,000 U	25,000 U	25,000 U	25,000 U	25,000 U	25,000 U	25,000 U	25,000 U	25,000 U
MCPP	µg/kg	25,000 U	25,000 U	25,000 U	25,000 U	25,000 U	25,000 U	25,000 U	25,000 U	25,000 U	25,000 U
Silvex	µg/kg	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
4,4'-DDD	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4,4'-DDE	µg/kg	9.6	13	9.8	11	9.5	16	9.4	7.4	12	14
4,4'-DDT	µg/kg	23 U	27 U	17 U	18 U	17 U	27 U	21 U	7.7 U	25 U	32 U
Aldrin	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
alpha-Chlordane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
alpha-Endosulfan	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
alpha-Hexachlorocyclohexane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
beta-Endosulfan	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	22 U	5 U	5 U
beta-Hexachlorocyclohexane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
delta-Hexachlorocyclohexane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dieldrin	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Endosulfan sulfate	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Endrin	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Endrin aldehyde	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	9.8 U	5 U	5 U	5 U
Endrin ketone	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
gamma-Chlordane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
gamma-Hexachlorocyclohexane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Heptachlor	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Heptachlor epoxide	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methoxychlor	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5.2 U	5 U
Toxaphene	µg/kg	250 U	250 U	250 U	250 U	250 U	250 U	250 U	480 U	250 U	250 U
Other Organic Compounds											
1,2,4-Trichlorobenzene	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,2-Dichlorobenzene	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,3-Dichlorobenzene	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,4-Dichlorobenzene	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
2,4,5-Trichlorophenol	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
2,4,6-Trichlorophenol	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
2,4-Dichlorophenol	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
2,4-Dimethylphenol	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U

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TABLE 2
SOIL STOCKPILE DATA
GM SMI PLANT
SAGINAW, MICHIGAN

	Survey:	CROTTY	CROTTY	CROTTY	CROTTY	CROTTY	CROTTY	CROTTY	CROTTY	CROTTY	CROTTY
	Station:	A1	A2	A3	A4	A4	A5	A6	A7	B1	B2
	Date:	4/18/2000	4/18/2000	4/18/2000	4/17/2000	4/17/2000	4/17/2000	4/17/2000	4/17/2000	4/18/2000	4/18/2000
	Sample ID:	A1	A2	A3	A4A	A4B	A5	A6	A7	B1	B2
Chemical (dry wt)	Units	0 - 0 cm	0 - 0 cm	0 - 0 cm	0 - 0 cm	0 - 0 cm	0 - 0 cm	0 - 0 cm	0 - 0 cm	0 - 0 cm	0 - 0 cm
2,4-Dinitrophenol	mg/kg	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
2,4-Dinitrotoluene	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
2,6-Dinitrotoluene	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
2-Chloronaphthalene	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
2-Chlorophenol	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
2-Methyl-4,6-dinitrophenol	mg/kg	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
2-Methylnaphthalene	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
2-Methylphenol	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
2-Nitroaniline	mg/kg	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
2-Nitrophenol	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
3,3'-Dichlorobenzidine	mg/kg	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
3-and 4-Methylphenol Coelution	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
3-Nitroaniline	mg/kg	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
4-Bromophenyl-phenyl ether	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
4-Chloro-3-methylphenol	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
4-Chloroaniline	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
4-Chlorophenyl-phenyl ether	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
4-Nitroaniline	mg/kg	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
4-Nitrophenol	mg/kg	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Aniline	mg/kg	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Benzoic acid	mg/kg	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Benzyl alcohol	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
bis[2-chloroethoxy]methane	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
bis[2-chloroethyl]ether	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Bis[2-chloroisopropyl]ether	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
bis[2-Ethylhexyl]phthalate	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Butylbenzyl phthalate	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Dibenzofuran	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Diethyl phthalate	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Dimethyl phthalate	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Di-n-butyl phthalate	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Di-n-octyl phthalate	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Hexachlorobenzene	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Hexachlorobutadiene	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Hexachlorocyclopentadiene	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Hexachloroethane	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Isophorone	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Nitrobenzene	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
N-nitroso dimethylamine	mg/kg	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
N-nitroso-di-n-propylamine	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
N-nitrosodiphenylamine	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Pentachlorophenol	mg/kg	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Phenol	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U

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TABLE 2
SOIL STOCKPILE DATA
GM SMI PLANT
SAGINAW, MICHIGAN

	Survey:	CROTTY	CROTTY	CROTTY	CROTTY	CROTTY	CROTTY	CROTTY	CROTTY	CROTTY	CROTTY
	Station:	B3	C1	C1	C2	C3	D1	D2	D3	E1	E2
	Date:	4/18/2000	4/18/2000	4/18/2000	4/18/2000	4/18/2000	4/18/2000	4/18/2000	4/18/2000	4/19/2000	4/19/2000
	Sample ID:	B3	C1A	C1B	C2	C3	D1	D2	D3	E1	E2
Chemical (dry wt)	Units	0 - 0 cm	0 - 0 cm	0 - 0 cm	0 - 0 cm	0 - 0 cm	0 - 0 cm	0 - 0 cm	0 - 0 cm	0 - 0 cm	0 - 0 cm
Inorganics											
Total solids (dry wt. as % of wet wt. or volume)	%	79.2	81.5	80.9	81.5	80.7	83.6	83.0	81.3	84.1	83.9
Arsenic	mg/kg	11.6	14.1	13.2	15.5	13.8	14.6	13.1	13	13.7	11.8
Barium	mg/kg	125	73.3	76.6	86.2	114	61.7	67.3	98.1	54.8	61.5
Cadmium	mg/kg	0.45	0.46	0.4	0.49	0.49	0.43	0.4	0.48	0.36	0.34
Chromium	mg/kg	20.3	19.5	17.2	20.6	19.2	14.9	17.1	19.5	12.1	14
Copper	mg/kg	14.9	13.8	13.5	15.6	15.1	11.9	12.6	14.5	10.1	18.3
Lead	mg/kg	17.1	17.4	16	19.1	17.5	14.7	15.3	17.3	13.4	48.1
Mercury (total)	mg/kg	0.09	0.08	0.08	0.1	0.16	0.06	0.08	0.09	0.06	0.08
Selenium	mg/kg	1.05 *U*	1.23 *U*	1.24 *U*	1.23 *U*	1.24 *U*	1.2 *U*	1.2 *U*	1.23 *U*	1.19 *U*	1.19 *U*
Silver	mg/kg	0.1 *J*	0.09 *J*	0.14 *J*	0.12 *J*	0.11 *J*	0.09 *J*	0.09 *J*	0.12 *J*	0.08 *J*	0.09 *J*
Zinc	mg/kg	69.3	57.4	56.3	255	64.5	51.7	52.4	64.3	45.6	50.2
PCDD/Fs											
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	pg/g		280								
1,2,3,4,6,7,8-Heptachlorodibenzofuran	pg/g		1,370								
1,2,3,4,7,8,9-Heptachlorodibenzofuran	pg/g		135								
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	pg/g		5.91								
1,2,3,4,7,8-Hexachlorodibenzofuran	pg/g		2,120								
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	pg/g		19								
1,2,3,6,7,8-Hexachlorodibenzofuran	pg/g		495								
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	pg/g		11.9								
1,2,3,7,8,9-Hexachlorodibenzofuran	pg/g		56.8								
1,2,3,7,8-Pentachlorodibenzo-p-dioxin	pg/g		7.56								
1,2,3,7,8-Pentachlorodibenzofuran	pg/g		2,910								
2,3,4,6,7,8-Hexachlorodibenzofuran	pg/g		235								
2,3,4,7,8-Pentachlorodibenzofuran	pg/g		2,290								
2,3,7,8-Tetrachlorodibenzo-p-dioxin	pg/g		5.4								
2,3,7,8-Tetrachlorodibenzofuran	pg/g		5,840								
Octachlorodibenzo-p-dioxin	pg/g		2,250								
Octachlorodibenzofuran	pg/g		1,300								
Total heptachlorodibenzo-p-dioxins	pg/g		536								
Total heptachlorodibenzofurans	pg/g		1,770								
Total hexachlorodibenzo-p-dioxins	pg/g		110								
Total hexachlorodibenzofurans	pg/g		2,120								
Total pentachlorodibenzo-p-dioxins	pg/g		60								
Total pentachlorodibenzofurans	pg/g		9,600								
Total tetrachlorodibenzo-p-dioxins	pg/g		107								
Total tetrachlorodibenzofurans	pg/g		11,500								
PAHs											
Acenaphthene	mg/kg	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*
Acenaphthylene	mg/kg	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*
Anthracene	mg/kg	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*
Benz[a]anthracene	mg/kg	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*
Benzo[a]pyrene	mg/kg	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*
Benzo[b]fluoranthene	mg/kg	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*
Benzo[ghi]perylene	mg/kg	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*
Benzo[k]fluoranthene	mg/kg	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*
Chrysene	mg/kg	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*
Dibenz[a,h]anthracene	mg/kg	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*
Fluoranthene	mg/kg	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.4	0.3 *U*
Fluorene	mg/kg	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*
Indeno[1,2,3-cd]pyrene	mg/kg	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*

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SOIL STOCKPILE DATA
GM SMI PLANT
SAGINAW, MICHIGAN

	Survey:	CROTTY	CROTTY	CROTTY	CROTTY	CROTTY	CROTTY	CROTTY	CROTTY	CROTTY	CROTTY
	Station:	B3	C1	C1	C2	C3	D1	D2	D3	E1	E2
	Date:	4/18/2000	4/18/2000	4/18/2000	4/18/2000	4/18/2000	4/18/2000	4/18/2000	4/18/2000	4/19/2000	4/19/2000
	Sample ID:	B3	C1A	C1B	C2	C3	D1	D2	D3	E1	E2
Chemical (dry wt)	Units	0 - 0 cm	0 - 0 cm	0 - 0 cm	0 - 0 cm	0 - 0 cm	0 - 0 cm	0 - 0 cm	0 - 0 cm	0 - 0 cm	0 - 0 cm
Naphthalene	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Phenanthrene	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Pyrene	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.4	0.3 U
PCBs											
Aroclor® 1016	mg/kg	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor® 1221	mg/kg	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor® 1232	mg/kg	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor® 1242	mg/kg	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor® 1248	mg/kg	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor® 1254	mg/kg	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor® 1260	mg/kg	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Pesticides											
2,4,5-T	µg/kg	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
2,4-D	µg/kg	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
2,4-DB	µg/kg	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
2-sec-butyl-4,6-dinitrophenol	µg/kg	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Dalapon	µg/kg	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Dicamba	µg/kg	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Dichlorprop	µg/kg	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
MCPA	µg/kg	25,000 U	25,000 U	25,000 U	25,000 U	25,000 U	25,000 U	25,000 U	25,000 U	25,000 U	25,000 U
MCPP	µg/kg	25,000 U	25,000 U	25,000 U	25,000 U	25,000 U	25,000 U	25,000 U	25,000 U	25,000 U	25,000 U
Silvex	µg/kg	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
4,4'-DDD	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4,4'-DDE	µg/kg	13	15	16	15	12	16	18	14	15	18
4,4'-DDT	µg/kg	27 U	29 U	28 U	5	27 U	32 U	35 U	5	13	15
Aldrin	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
alpha-Chlordane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
alpha-Endosulfan	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
alpha-Hexachlorocyclohexane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
beta-Endosulfan	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
beta-Hexachlorocyclohexane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
delta-Hexachlorocyclohexane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dieldrin	µg/kg	5 U	5.6	5.2	6.4	5 U	5.9	8	5 U	5 U	5 U
Endosulfan sulfate	µg/kg	5 U	5 U	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Endrin	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5.6 U	5 U	6 U	5 U
Endrin aldehyde	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Endrin ketone	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
gamma-Chlordane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
gamma-Hexachlorocyclohexane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Heptachlor	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Heptachlor epoxide	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methoxychlor	µg/kg	5 U	5 U	5 U	5.7 U	5 U	5 U	14 U	5.5 U	7.8 U	7.4 U
Toxaphene	µg/kg	250 U	250 U	250 U	250 U	250 U	260 U	250 U	250 U	280 U	270 U
Other Organic Compounds											
1,2,4-Trichlorobenzene	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,2-Dichlorobenzene	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,3-Dichlorobenzene	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,4-Dichlorobenzene	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
2,4,5-Trichlorophenol	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
2,4,6-Trichlorophenol	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
2,4-Dichlorophenol	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
2,4-Dimethylphenol	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U

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SOIL STOCKPILE DATA
GM SMI PLANT
SAGINAW, MICHIGAN

	Survey:	CROTTY	CROTTY	CROTTY	CROTTY	CROTTY	CROTTY	CROTTY	CROTTY	CROTTY	CROTTY
	Station:	B3	C1	C1	C2	C3	D1	D2	D3	E1	E2
	Date:	4/18/2000	4/18/2000	4/18/2000	4/18/2000	4/18/2000	4/18/2000	4/18/2000	4/18/2000	4/19/2000	4/19/2000
	Sample ID:	B3	C1A	C1B	C2	C3	D1	D2	D3	E1	E2
Chemical (dry wt)	Units	0 - 0 cm	0 - 0 cm	0 - 0 cm	0 - 0 cm	0 - 0 cm	0 - 0 cm	0 - 0 cm	0 - 0 cm	0 - 0 cm	0 - 0 cm
2,4-Dinitrophenol	mg/kg	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
2,4-Dinitrotoluene	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
2,6-Dinitrotoluene	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
2-Chloronaphthalene	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
2-Chlorophenol	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
2-Methyl-4,6-dinitrophenol	mg/kg	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
2-Methylnaphthalene	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
2-Methylphenol	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
2-Nitroaniline	mg/kg	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
2-Nitrophenol	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
3,3'-Dichlorobenzidine	mg/kg	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
3-and 4-Methylphenol Coelution	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
3-Nitroaniline	mg/kg	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
4-Bromophenyl-phenyl ether	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
4-Chloro-3-methylphenol	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
4-Chloroaniline	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
4-Chlorophenyl-phenyl ether	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
4-Nitroaniline	mg/kg	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
4-Nitrophenol	mg/kg	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Aniline	mg/kg	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Benzoic acid	mg/kg	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Benzyl alcohol	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
bis[2-chloroethoxy]methane	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
bis[2-chloroethyl]ether	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Bis[2-chloroisopropyl]ether	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
bis[2-Ethylhexyl]phthalate	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Butylbenzyl phthalate	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Dibenzofuran	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Diethyl phthalate	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Dimethyl phthalate	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Di-n-butyl phthalate	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Di-n-octyl phthalate	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Hexachlorobenzene	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Hexachlorobutadiene	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Hexachlorocyclopentadiene	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Hexachloroethane	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Isophorone	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Nitrobenzene	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
N-nitroso dimethylamine	mg/kg	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
N-nitroso-di-n-propylamine	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
N-nitrosodiphenylamine	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Pentachlorophenol	mg/kg	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Phenol	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U

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TABLE 2
SOIL STOCKPILE DATA
GM SMI PLANT
SAGINAW, MICHIGAN

	Survey:	CROTTY	CROTTY	CROTTY	CROTTY	CROTTY
	Station:	E3	E3	F1	F2	F3
	Date:	4/19/2000	4/19/2000	4/19/2000	4/19/2000	4/19/2000
	Sample ID:	E3A	E3B	F1	F2	F3
Chemical (dry wt)	Units	0 - 0 cm	0 - 0 cm	0 - 0 cm	0 - 0 cm	0 - 0 cm
Inorganics						
Total solids (dry wt. as % of wet wt. or volume)	%	81.3	80.9	81.9	83.9	86.1
Arsenic	mg/kg	13	13.5	12.8	12.3	10.4
Barium	mg/kg	89.8	91	75.8	57.5	36.2
Cadmium	mg/kg	0.45	0.45	0.45	0.38	0.29
Chromium	mg/kg	18.8	19.6	18.1	15	9.14
Copper	mg/kg	13.4	14	12.7	11.9	8.47
Lead	mg/kg	18	18.2	16.4	15.6	10.7
Mercury (total)	mg/kg	0.11	0.12	0.1	0.08	0.05
Selenium	mg/kg	1.23 *U*	1.24 *U*	1.22 *U*	1.19 *U*	1.16 *U*
Silver	mg/kg	0.14 *J*	0.1 *J*	0.09 *J*	0.07 *J*	0.07 *J*
Zinc	mg/kg	60.5	61.8	58.1	49.1	37.4
PCDD/Fs						
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	pg/g	317				
1,2,3,4,6,7,8-Heptachlorodibenzofuran	pg/g	1,180				
1,2,3,4,7,8,9-Heptachlorodibenzofuran	pg/g	110				
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	pg/g	4.96				
1,2,3,4,7,8-Hexachlorodibenzofuran	pg/g	1,420				
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	pg/g	19.4				
1,2,3,6,7,8-Hexachlorodibenzofuran	pg/g	324				
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	pg/g	11.6				
1,2,3,7,8,9-Hexachlorodibenzofuran	pg/g	35.2				
1,2,3,7,8-Pentachlorodibenzo-p-dioxin	pg/g	6.86				
1,2,3,7,8-Pentachlorodibenzofuran	pg/g	1,890				
2,3,4,6,7,8-Hexachlorodibenzofuran	pg/g	152				
2,3,4,7,8-Pentachlorodibenzofuran	pg/g	1,470				
2,3,7,8-Tetrachlorodibenzo-p-dioxin	pg/g	4.54				
2,3,7,8-Tetrachlorodibenzofuran	pg/g	4,200				
Octachlorodibenzo-p-dioxin	pg/g	2,310				
Octachlorodibenzofuran	pg/g	1,370				
Total heptachlorodibenzo-p-dioxins	pg/g	606				
Total heptachlorodibenzofurans	pg/g	1,980				
Total hexachlorodibenzo-p-dioxins	pg/g	104				
Total hexachlorodibenzofurans	pg/g	1,420				
Total pentachlorodibenzo-p-dioxins	pg/g	55.2				
Total pentachlorodibenzofurans	pg/g	5,550				
Total tetrachlorodibenzo-p-dioxins	pg/g	111				
Total tetrachlorodibenzofurans	pg/g	8,070				
PAHs						
Acenaphthene	mg/kg	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*
Acenaphthylene	mg/kg	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*
Anthracene	mg/kg	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*
Benz[a]anthracene	mg/kg	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*
Benzo[a]pyrene	mg/kg	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*
Benzo[b]fluoranthene	mg/kg	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*
Benzo[ghi]perylene	mg/kg	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*
Benzo[k]fluoranthene	mg/kg	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*
Chrysene	mg/kg	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*
Dibenz[a,h]anthracene	mg/kg	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*
Fluoranthene	mg/kg	0.3 *U*	0.3 *U*	0.4	0.3 *U*	0.3 *U*
Fluorene	mg/kg	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*
Indeno[1,2,3-cd]pyrene	mg/kg	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*	0.3 *U*

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TABLE 2
SOIL STOCKPILE DATA
GM SMI PLANT
SAGINAW, MICHIGAN

	Survey:	CROTTY	CROTTY	CROTTY	CROTTY	CROTTY
	Station:	E3	E3	F1	F2	F3
	Date:	4/19/2000	4/19/2000	4/19/2000	4/19/2000	4/19/2000
	Sample ID:	E3A	E3B	F1	F2	F3
Chemical (dry wt)	Units	0 - 0 cm	0 - 0 cm	0 - 0 cm	0 - 0 cm	0 - 0 cm
Naphthalene	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Phenanthrene	mg/kg	0.3 U	0.3 U	0.3	0.3 U	0.3 U
Pyrene	mg/kg	0.3 U	0.3 U	0.4	0.3 U	0.3 U
PCBs						
Aroclor® 1016	mg/kg	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor® 1221	mg/kg	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor® 1232	mg/kg	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor® 1242	mg/kg	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor® 1248	mg/kg	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor® 1254	mg/kg	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor® 1260	mg/kg	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Pesticides						
2,4,5-T	µg/kg	50 U	50 U	50 U	50 U	50 U
2,4-D	µg/kg	50 U	50 U	50 U	50 U	50 U
2,4-DB	µg/kg	50 U	50 U	50 U	50 U	50 U
2-sec-butyl-4,6-dinitrophenol	µg/kg	50 U	50 U	50 U	50 U	50 U
Dalapon	µg/kg	50 U	50 U	50 U	50 U	50 U
Dicamba	µg/kg	50 U	50 U	50 U	50 U	50 U
Dichlorprop	µg/kg	50 U	50 U	50 U	50 U	50 U
MCPA	µg/kg	25,000 U	25,000 U	25,000 U	25,000 U	25,000 U
MCPP	µg/kg	25,000 U	25,000 U	25,000 U	25,000 U	25,000 U
Silvex	µg/kg	50 U	50 U	50 U	50 U	50 U
4,4'-DDD	µg/kg	5 U	5 U	5 U	5 U	5 U
4,4'-DDE	µg/kg	12	16	13	15	13
4,4'-DDT	µg/kg	15	14	7.5	13	13
Aldrin	µg/kg	5 U	5 U	5 U	5 U	5 U
alpha-Chlordane	µg/kg	5 U	5 U	5 U	5 U	5 U
alpha-Endosulfan	µg/kg	5 U	5 U	5 U	5 U	5 U
alpha-Hexachlorocyclohexane	µg/kg	5 U	5 U	5 U	5 U	5 U
beta-Endosulfan	µg/kg	5 U	5 U	5 U	5 U	5 U
beta-Hexachlorocyclohexane	µg/kg	5 U	5 U	5 U	5 U	5 U
delta-Hexachlorocyclohexane	µg/kg	5 U	5 U	5 U	5 U	5 U
Dieldrin	µg/kg	5 U	5 U	5 U	5 U	5 U
Endosulfan sulfate	µg/kg	5 U	5 U	5 U	5 U	5 U
Endrin	µg/kg	5 U	5 U	6.9 U	5 U	5 U
Endrin aldehyde	µg/kg	5 U	5 U	5 U	5 U	5 U
Endrin ketone	µg/kg	5 U	5 U	5 U	5 U	5 U
gamma-Chlordane	µg/kg	5 U	5 U	5 U	5 U	5 U
gamma-Hexachlorocyclohexane	µg/kg	5 U	5 U	5 U	5 U	5 U
Heptachlor	µg/kg	5 U	5 U	5 U	5 U	5 U
Heptachlor epoxide	µg/kg	5 U	5 U	5 U	5 U	5 U
Methoxychlor	µg/kg	5.3 U	5 U	8.7 U	8.7 U	5.3 U
Toxaphene	µg/kg	250 U	250 U	340 U	300 U	250 U
Other Organic Compounds						
1,2,4-Trichlorobenzene	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,2-Dichlorobenzene	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,3-Dichlorobenzene	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,4-Dichlorobenzene	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
2,4,5-Trichlorophenol	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
2,4,6-Trichlorophenol	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
2,4-Dichlorophenol	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
2,4-Dimethylphenol	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U

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TABLE 2
SOIL STOCKPILE DATA
GM SMI PLANT
SAGINAW, MICHIGAN

	Survey:	CROTTY	CROTTY	CROTTY	CROTTY	CROTTY
	Station:	E3	E3	F1	F2	F3
	Date:	4/19/2000	4/19/2000	4/19/2000	4/19/2000	4/19/2000
	Sample ID:	E3A	E3B	F1	F2	F3
Chemical (dry wt)	Units	0 - 0 cm	0 - 0 cm	0 - 0 cm	0 - 0 cm	0 - 0 cm
2,4-Dinitrophenol	mg/kg	2 U	2 U	2 U	2 U	2 U
2,4-Dinitrotoluene	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
2,6-Dinitrotoluene	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
2-Chloronaphthalene	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
2-Chlorophenol	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
2-Methyl-4,6-dinitrophenol	mg/kg	2 U	2 U	2 U	2 U	2 U
2-Methylnaphthalene	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
2-Methylphenol	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
2-Nitroaniline	mg/kg	2 U	2 U	2 U	2 U	2 U
2-Nitrophenol	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
3,3'-Dichlorobenzidine	mg/kg	2 U	2 U	2 U	2 U	2 U
3-and 4-Methylphenol Coelution	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
3-Nitroaniline	mg/kg	2 U	2 U	2 U	2 U	2 U
4-Bromophenyl-phenyl ether	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
4-Chloro-3-methylphenol	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
4-Chloroaniline	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
4-Chlorophenyl-phenyl ether	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
4-Nitroaniline	mg/kg	2 U	2 U	2 U	2 U	2 U
4-Nitrophenol	mg/kg	2 U	2 U	2 U	2 U	2 U
Aniline	mg/kg	1 U	1 U	1 U	1 U	1 U
Benzoic acid	mg/kg	2 U	2 U	2 U	2 U	2 U
Benzyl alcohol	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
bis[2-chloroethoxy]methane	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
bis[2-chloroethyl]ether	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Bis[2-chloroisopropyl]ether	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
bis[2-Ethylhexyl]phthalate	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Butylbenzyl phthalate	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Dibenzofuran	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Diethyl phthalate	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Dimethyl phthalate	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Di-n-butyl phthalate	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Di-n-octyl phthalate	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Hexachlorobenzene	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Hexachlorobutadiene	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Hexachlorocyclopentadiene	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Hexachloroethane	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Isophorone	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Nitrobenzene	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
N-nitroso dimethylamine	mg/kg	2 U	2 U	2 U	2 U	2 U
N-nitroso-di-n-propylamine	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
N-nitrosodiphenylamine	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Pentachlorophenol	mg/kg	2 U	2 U	2 U	2 U	2 U
Phenol	mg/kg	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U

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TABLE 3

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VERIFICATION SOIL SAMPLING
SB-378 MANGANESE EXCAVATION AREA
SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

	Michigan Act 451, Part 201 Generic Residential Particulate Soil Inhalation Criteria	*SB-378 Manganese Initial Excavation South Wall (Removed)*	*SB-378 Manganese Expanded Excavation South Wall*	*SB-378 Manganese Initial Excavation South West Wall*	*SB-378 Manganese Initial Excavation North East Wall (Removed)*	*SB-378 Manganese Expanded Excavation North East Wall*
Sample Location:						
Units:		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Sample Identification:		SSH-4001	SSH-4023	SSH-4002	SSH-4003	SSH-4024
Sample Date:		8/30/2004	9/13/2004	8/30/2004	8/30/2004	9/13/2004
Sample Interval		0-1 ft bgs	0-1 ft bgs	0-1 ft bgs	0-1 ft bgs	0-1 ft bgs
Parameters						
Manganese	3,300	16,000	1,830	342	10,300	2,350

Notes:

5,000

Boxed results exceed Michigan Act 451, Part 201 Generic Residential Particulate Soil Inhalation Criteria

Shaded sample results have been excavated.

Non-shaded sample results present final verification sample locations.

Exceedances of criteria remain, but only in floor samples deeper then 2 ft bgs.

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VERIFICATION SOIL SAMPLING
SB-378 MANGANESE EXCAVATION AREA
SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

Sample Location:	*Michigan Act 451, Part 201 Generic Residential Particulate Soil Inhalation Criteria*	*SB-378 Manganese Initial Excavation West Wall*	*SB-378 Manganese Initial Excavation South Floor (Removed)*	*SB-378 Manganese Expanded Excavation South Floor*	*SB-378 Manganese Initial Excavation Floor (Removed)*	*SB-378 Manganese Expanded Excavation Floor*	*SB-378 Manganese Initial Excavation North Floor (Removed)*
Units:		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Sample Identification:		SSH-4004	SSH-4005	SSH-4029	SSH-4006	SSH-4030	SSH-4007
Sample Date:		8/30/2004	8/30/2004	9/22/2004	8/30/2004	9/22/2004	8/30/2004
Sample Interval		0-1 ft bgs	1 ft bgs	2-3 ft bgs	1 ft bgs	2-3 ft bgs	1 ft bgs
Parameters							
Manganese	3,300	299	9,070	13,600	9,550	21,500	14,300

Notes:

5,000

Boxed results exceed Michigan Act 451, Part 201 Generic Residential Particulate Soil Inhalation Criteria

Shaded sample results have been excavated.

Non-shaded sample results present final verification sample locations.

Exceedances of criteria remain, but only in floor samples deeper then 2 ft bgs.

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TABLE 3

VERIFICATION SOIL SAMPLING
SB-378 MANGANESE EXCAVATION AREA
SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

Sample Location:	*Michigan Act 451, Part 201 Generic Residential Particulate Soil Inhalation Criteria*	*SB-378 Manganese Expanded Excavation North Floor*
Units:		mg/kg
Sample Identification:		SSH-4031
Sample Date:		9/22/2004
Sample Interval		2-3 ft bgs
Parameters		
Manganese	3,300	26,600

Notes:

5,000

Boxed results exceed Michigan Act 451, Part 201 Generic Residential Particulate Soil Inhalation Criteria

Shaded sample results have been excavated.

Non-shaded sample results present final verification sample locations.

Exceedances of criteria remain, but only in floor samples deeper then 2 ft bgs.

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VERIFICATION SOIL SAMPLING
SB-380 MANGANESE EXCAVATION AREA
SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

Sample Location:	*Michigan Act 451, Part 201 Generic Residential Particulate Soil Inhalation Criteria*	*SB-380 Manganese Initial Excavation South Bank (Removed)*	***SB-380 Manganese Extended Excavation South Wall***	*SB-380 Manganese Initial Excavation South West Wall (Removal)*	***SB-380 Manganese Initial Excavation North East Wall***	*SB-380 Manganese Initial Excavation North West Wall (Removed)*
Units:		mg/kg	***mg/kg***	mg/kg	***mg/kg***	mg/kg
Sample Identification:		SSH-4008	***SSH-4025***	SSH-4009	***SSH-4010***	SSH-4011
Sample Date:		8/30/2004	***9/13/2004***	8/30/2004	***8/30/2004***	8/30/2004
Sample Interval		***0-1 ft bgs***	***0-1 ft bgs***	***0-1 ft bgs***	***0-1 ft bgs***	***0-1 ft bgs***
Parameters						
Manganese	3,300	3,990	2,710	586	688	3,470

Notes:

5,000

Boxed results exceed Michigan Act 451, Part 201 Generic Residential Particulate Soil Inhalation Criteria

Shaded sample results have been excavated.

Non-shaded sample results present final verification sample locations.

Exceedances of criteria remain, but only in floor samples deeper then 2 ft bgs.

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TABLE 4

VERIFICATION SOIL SAMPLING
SB-380 MANGANESE EXCAVATION AREA
SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

Sample Location:	Michigan Act 451, Part 201 Generic Residential Particulate Soil Inhalation Criteria	SB-380 Manganese Extended Excavation North West Wall	SB-380 Manganese Initial Excavation North Floor (Removed)	SB-380 Manganese Initial Excavation South Floor (Removed)	SB-380 Manganese Initial Excavation South Floor (Removed)	SB-380 Manganese Extended Excavation South Floor
Units:		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Sample Identification:		SSH-4026	SSH-4012	SSH-4013	SSH-4014	SSH-4032
Sample Date:		9/13/2004	8/30/2004	8/30/2004	8/30/2004	9/22/2004
Sample Interval		0-1 ft bgs	1 ft bgs	1 ft bgs	1 ft bgs Duplicate	2-3 ft bgs
Parameters						
Manganese	3,300	848	3,920	12,900	11,100	17,200

Notes:

5,000

Boxed results exceed Michigan Act 451, Part 201 Generic Residential Particulate Soil Inhalation Criteria

Shaded sample results have been excavated.

Non-shaded sample results present final verification sample locations.

Exceedances of criteria remain, but only in floor samples deeper then 2 ft bgs.

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TABLE 4

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VERIFICATION SOIL SAMPLING
SB-380 MANGANESE EXCAVATION AREA
SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

	Michigan Act 451, Part 201 Generic Residential Particulate Soil Inhalation Criteria	*SB-380 Manganese Extended Excavation North Floor*	*SB-380 Manganese Extended Excavation North Floor*
Sample Location:			
Units:		*mg/kg*	*mg/kg*
Sample Identification:		*SSH-4033*	*SSH-4034*
Sample Date:		*9/22/2004*	*9/22/2004*
Sample Interval		*2-3 ft bgs*	*2-3 ft bgs Duplicate*
Parameters			
Manganese	3,300	13,200	16,900

Notes:

5,000

Boxed results exceed Michigan Act 451, Part 201 Generic Residential Particulate Soil Inhalation Criteria

Shaded sample results have been excavated.

Non-shaded sample results present final verification sample locations.

Exceedances of criteria remain, but only in floor samples deeper then 2 ft bgs.

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TABLE 5

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VERIFICATION SOIL SAMPLING
SB-381 MANGANESE EXCAVATION AREA
SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

Sample Location:	*Michigan Act 451, Part 201 Generic Residential Particulate Soil Inhalation Criteria*	*SB-381 Manganese Initial Excavation South Wall (Removed)*	*SB-381 Manganese Initial Excavation West Wall*	*SB-381 Manganese Initial Excavation North East Wall (Removed)*	*SB-381 Manganese Extended Excavation North East Wall*	*SB-381 Manganese Initial Excavation North West Wall*
Units:						
Sample Identification:		SSH-4015	*SSH-4016*	SSH-4017	*SSH-4027*	*SSH-4018*
Sample Date:		8/30/2004	*8/30/2004*	8/30/2004	*9/13/2004*	*8/30/2004*
Sample Interval		*0-1 ft bgs*	*0-1 ft bgs*	*0-1 ft bgs*	*0-1 ft bgs*	*0-1 ft bgs*
Parameters						
Manganese	3,300	1,230	2,360	5,830	**1,130**	**547**

Notes:

5,000

Boxed results exceed Michigan Act 451, Part 201 Generic Residential Particulate Soil Inhalation Criteria

Shaded sample results have been excavated.

Non-shaded sample results present final verification sample locations.

Exceedances of criteria remain, but only in floor samples deeper then 2 ft bgs.

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TABLE 5

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VERIFICATION SOIL SAMPLING
SB-381 MANGANESE EXCAVATION AREA
SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

Sample Location:	*Michigan Act 451, Part 201 Generic Residential Particulate Soil Inhalation Criteria*	*SB-381 Manganese Initial Excavation North West Wall*	*SB-381 Manganese Initial Excavation South Floor (Removed)*	*SB-381 Manganese Initial Excavation Floor (Removed)*	*SB-381 Manganese Extended Excavation Floor*	*SB-381 Manganese Initial Excavation North Floor (Removed)*
Units:						
Sample Identification:		*SSH-4019*	SSH-4020	SSH-4021	*SSH-4028*	SSH-4022
Sample Date:		*8/30/2004*	8/30/2004	8/30/2004	*9/13/2004*	8/30/2004
Sample Interval		*0-1 ft bgs*	*1 ft bgs*	*1 ft bgs*	*2 ft bgs*	*1 ft bgs*
		Duplicate				
Parameters						
Manganese	3,300	**684**	559	4,000	**6,200**	1,220

Notes:

5,000

Boxed results exceed Michigan Act 451, Part 201 Generic Residential Particulate Soil Inhalation Criteria

Shaded sample results have been excavated.

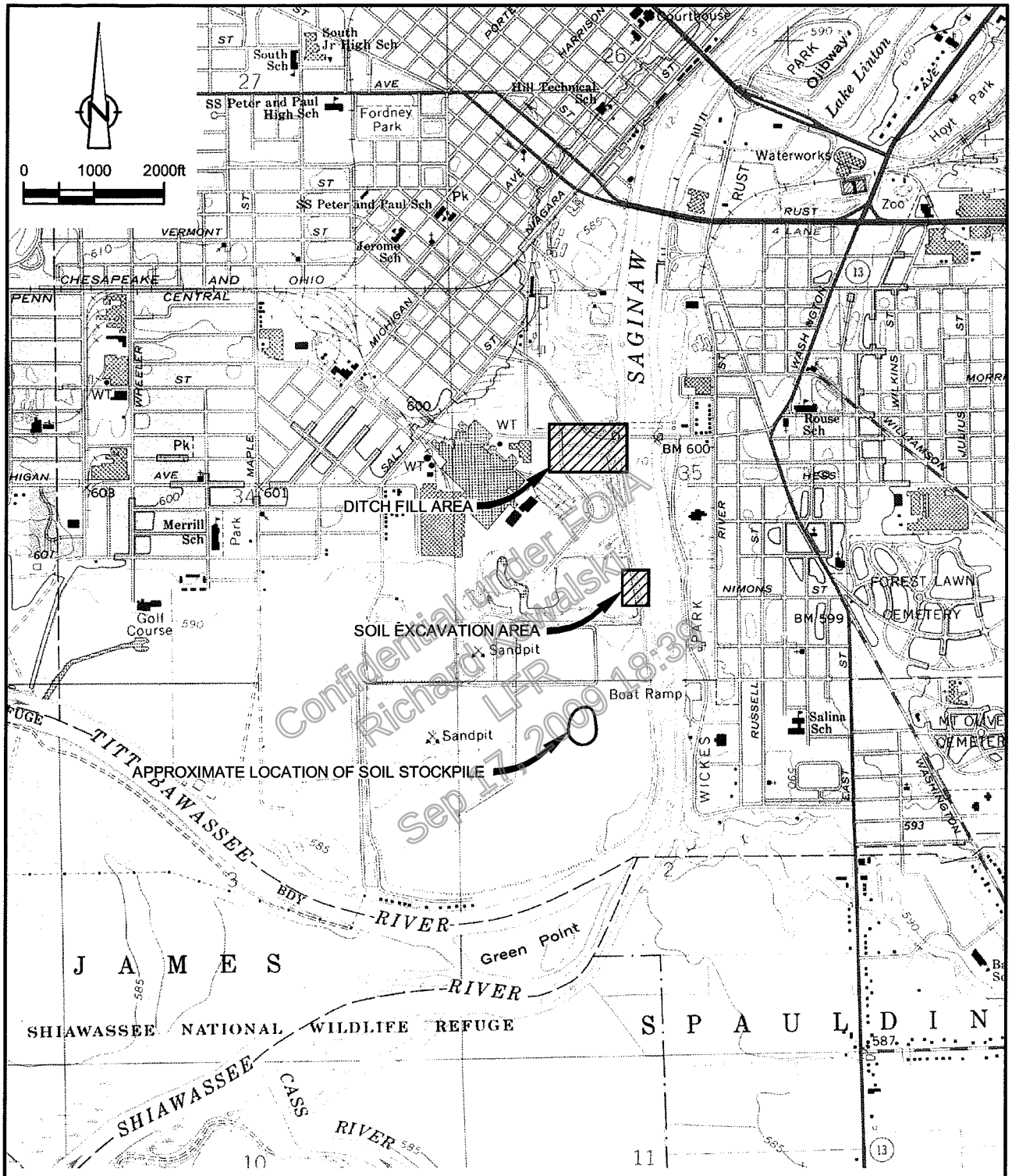
Non-shaded sample results present final verification sample locations.

Exceedances of criteria remain, but only in floor samples deeper then 2 ft bgs.

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SOURCE: USGS QUADRANGLE MAP;
SAGINAW, MICHIGAN

SAGINAW
MICHIGAN

figure 1

SITE LOCATION
EAST/WEST CHANNEL
Saginaw, Michigan

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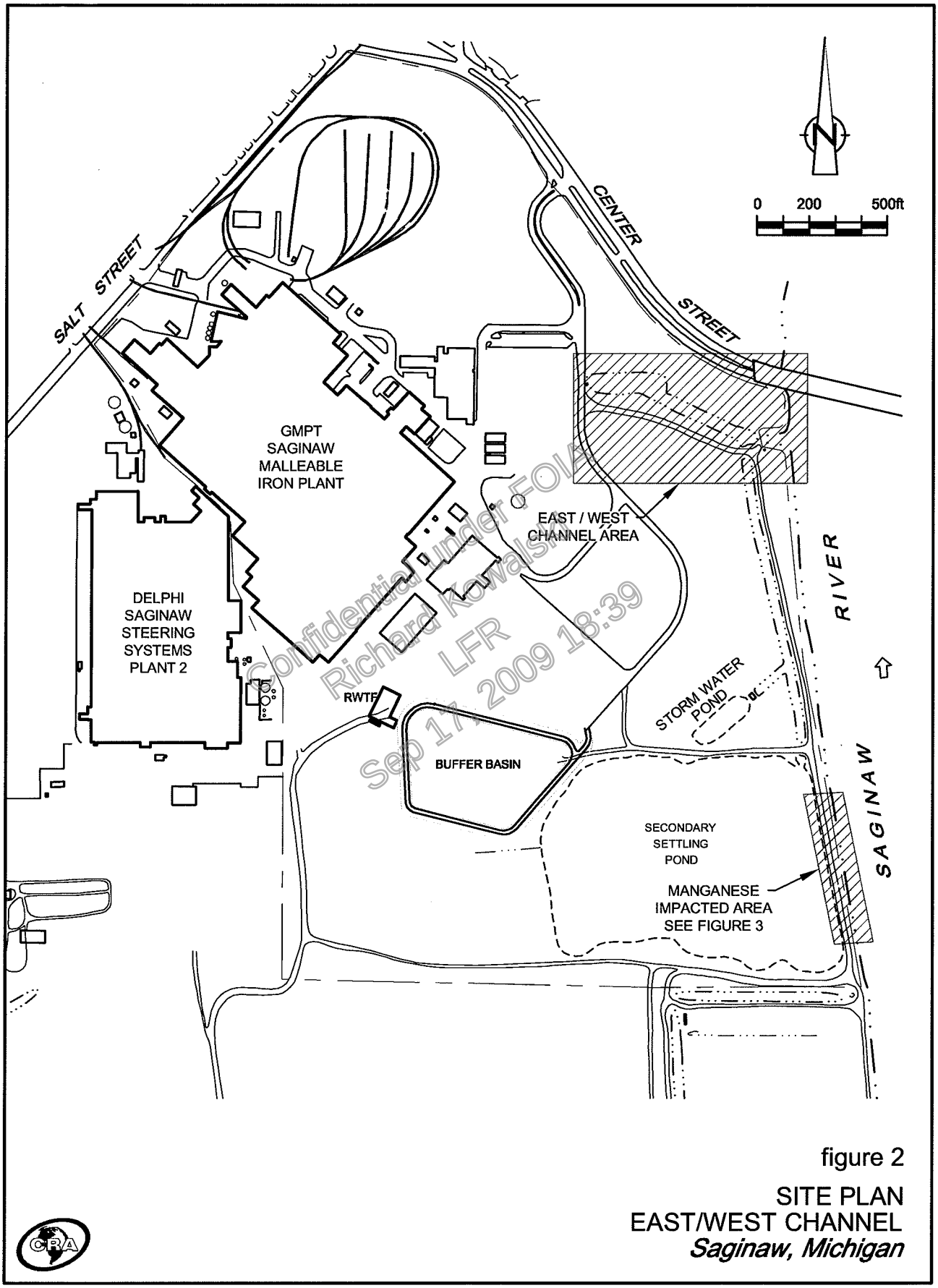


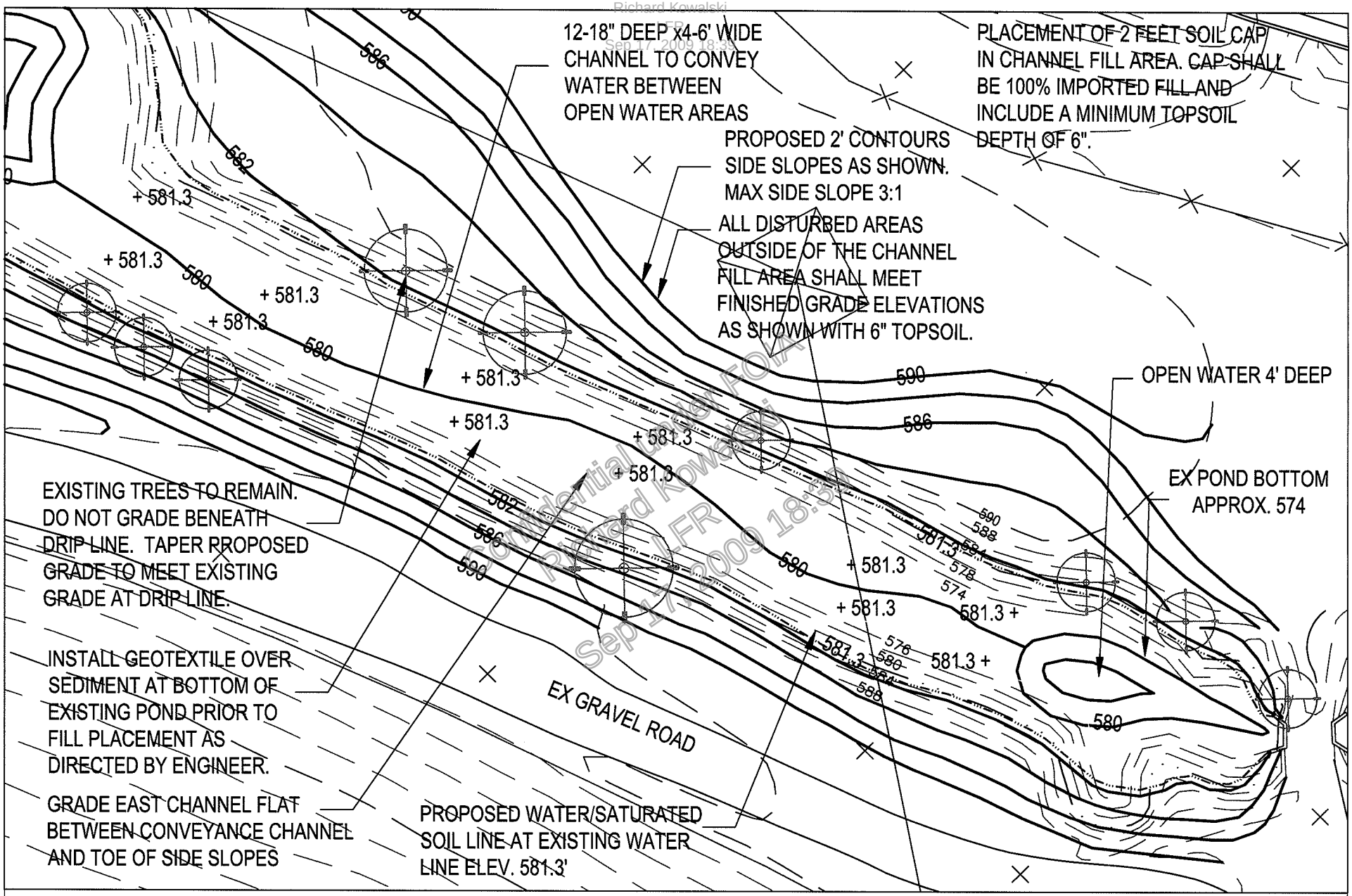
figure 2

SITE PLAN
EAST/WEST CHANNEL
Saginaw, Michigan

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Revised July 22, 2004

SCALE 1" = 40'

0 20 40 80

figure 7
PRELIMINARY
PROPOSED GRADING PLAN - EAST
GMPT SMI PLANT
Saginaw, Michigan

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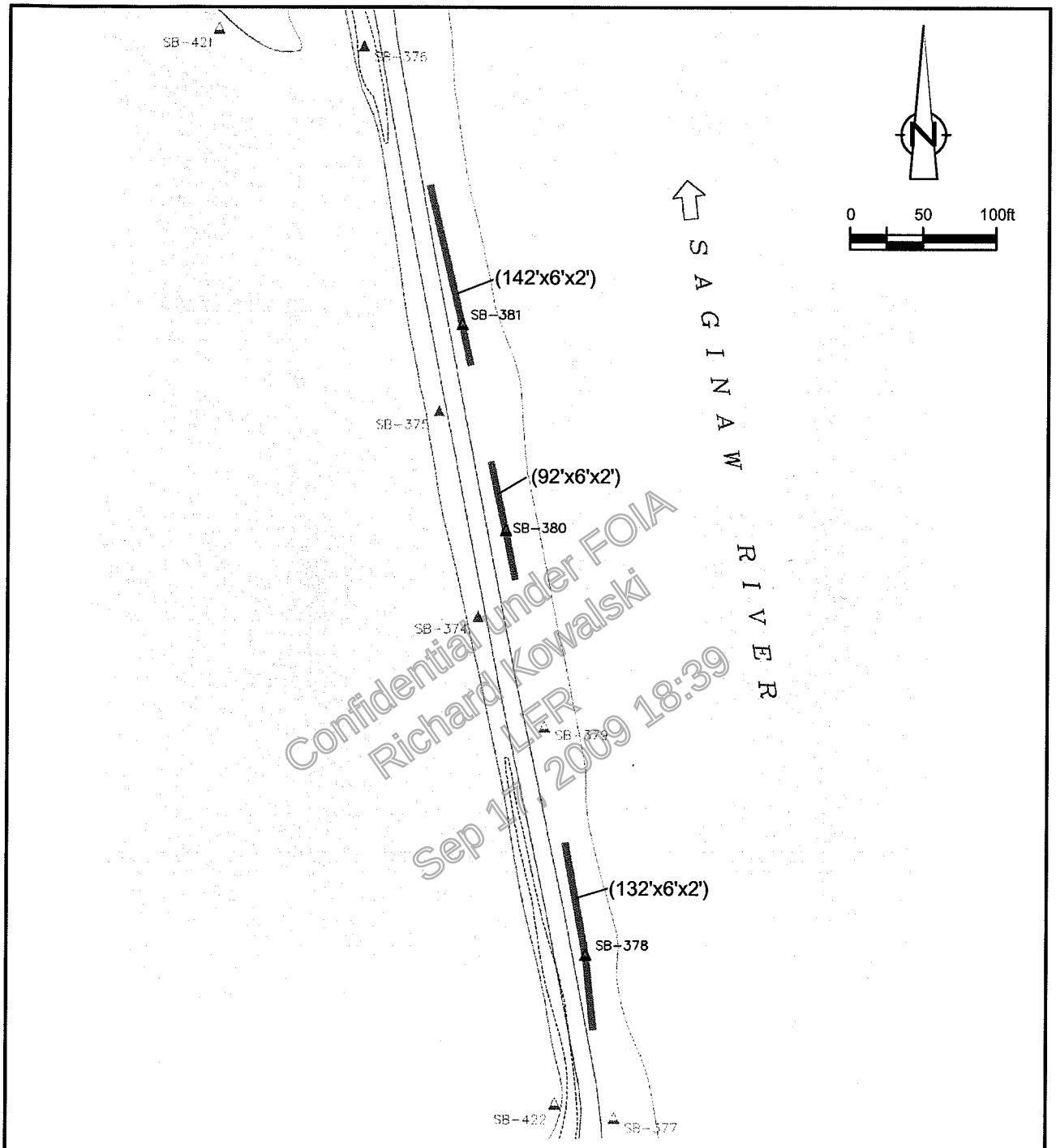


figure 3

FINAL SOIL EXCAVATION AND DIMENSIONS MANGANESE IMPACTED SOIL EAST/WEST CHANNEL

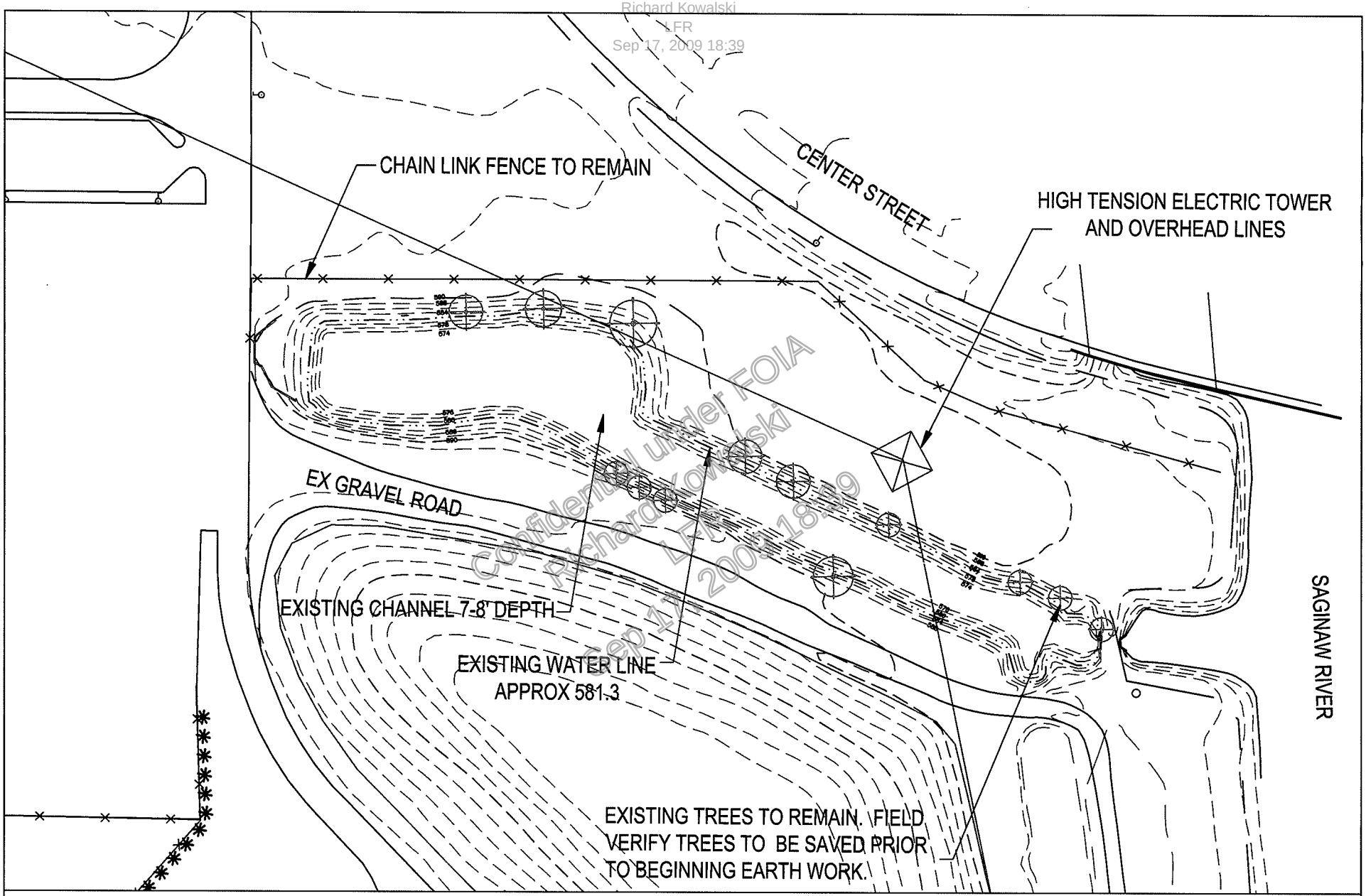
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SOURCE: BLASLAND, BOUCK & LEE, INC.
ENGINEERS & SCIENTISTS

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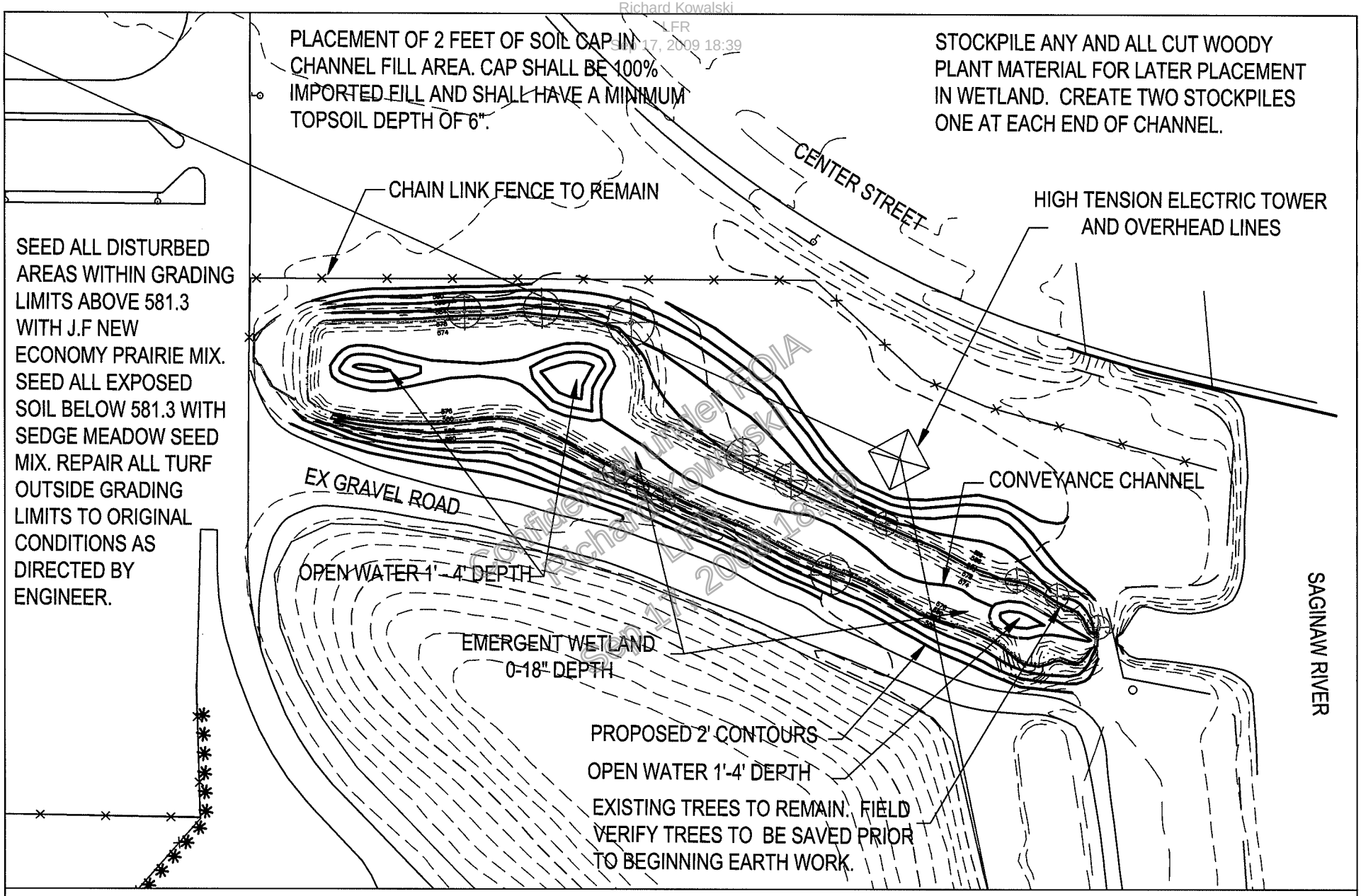
SCALE 1" = 100'

0 50 100 200

figure 4
EXISTING CONDITIONS PLAN - OVERVIEW
GMPT SMI PLANT
Saginaw, Michigan

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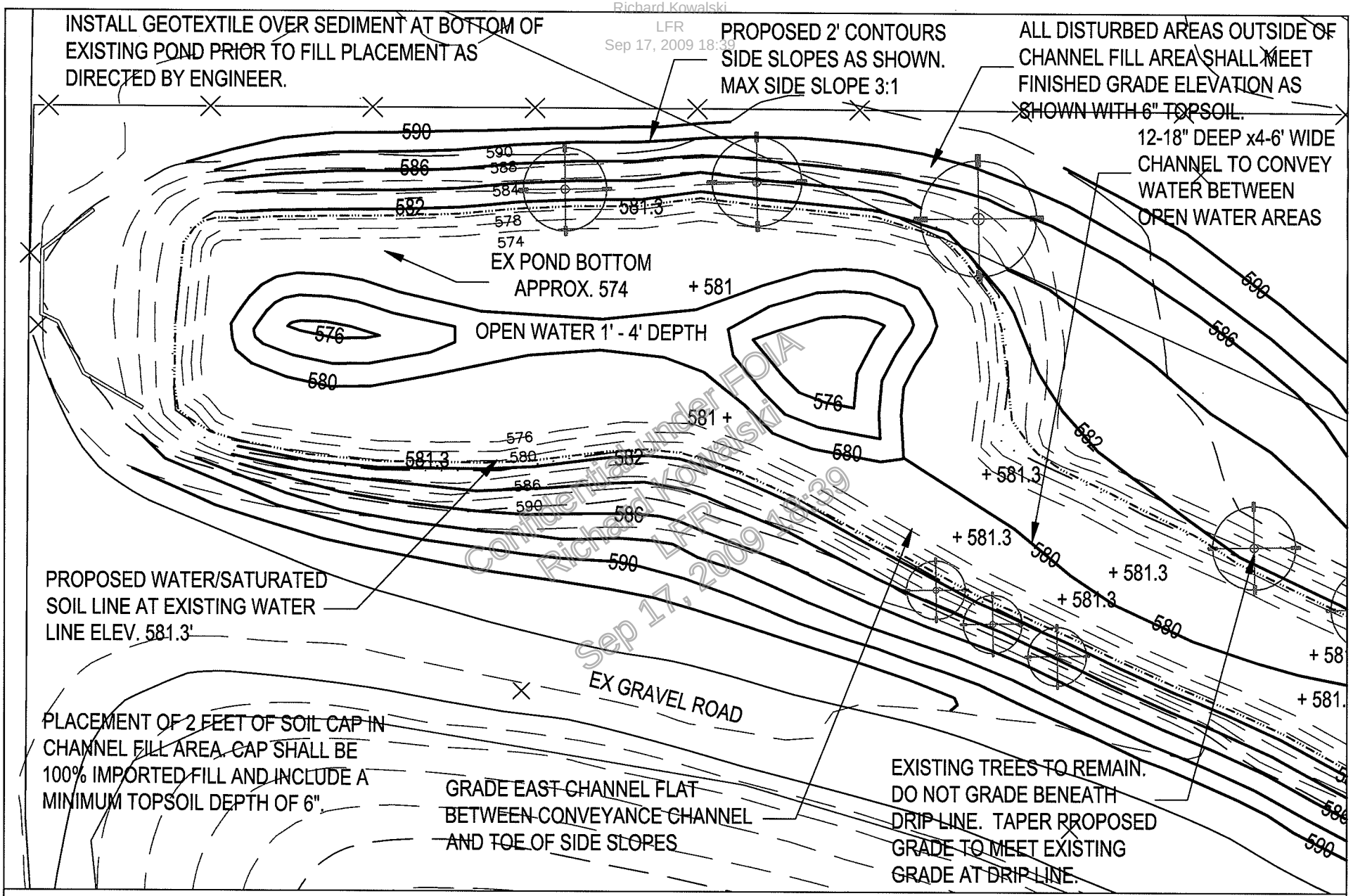
SCALE 1" = 100'

0 50 100 200

figure 5
PRELIMINARY
PROPOSED PLAN - OVERVIEW
GMPT SMI PLANT
Saginaw, Michigan

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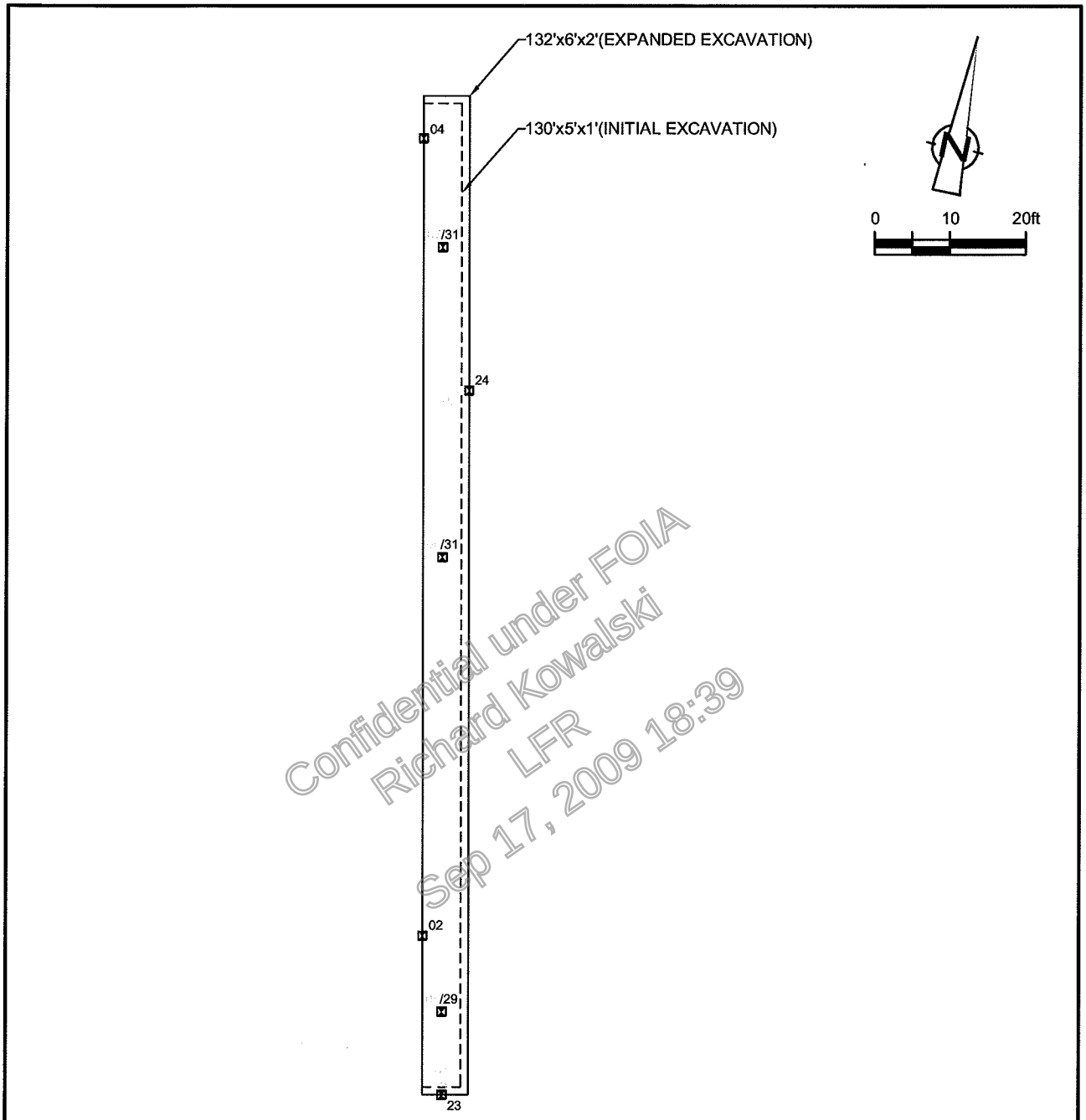
SCALE 1" = 40'

0 20 40 80

figure 6
PRELIMINARY
PROPOSED GRADING PLAN - WEST
GMPT SMI PLANT
Saginaw, Michigan

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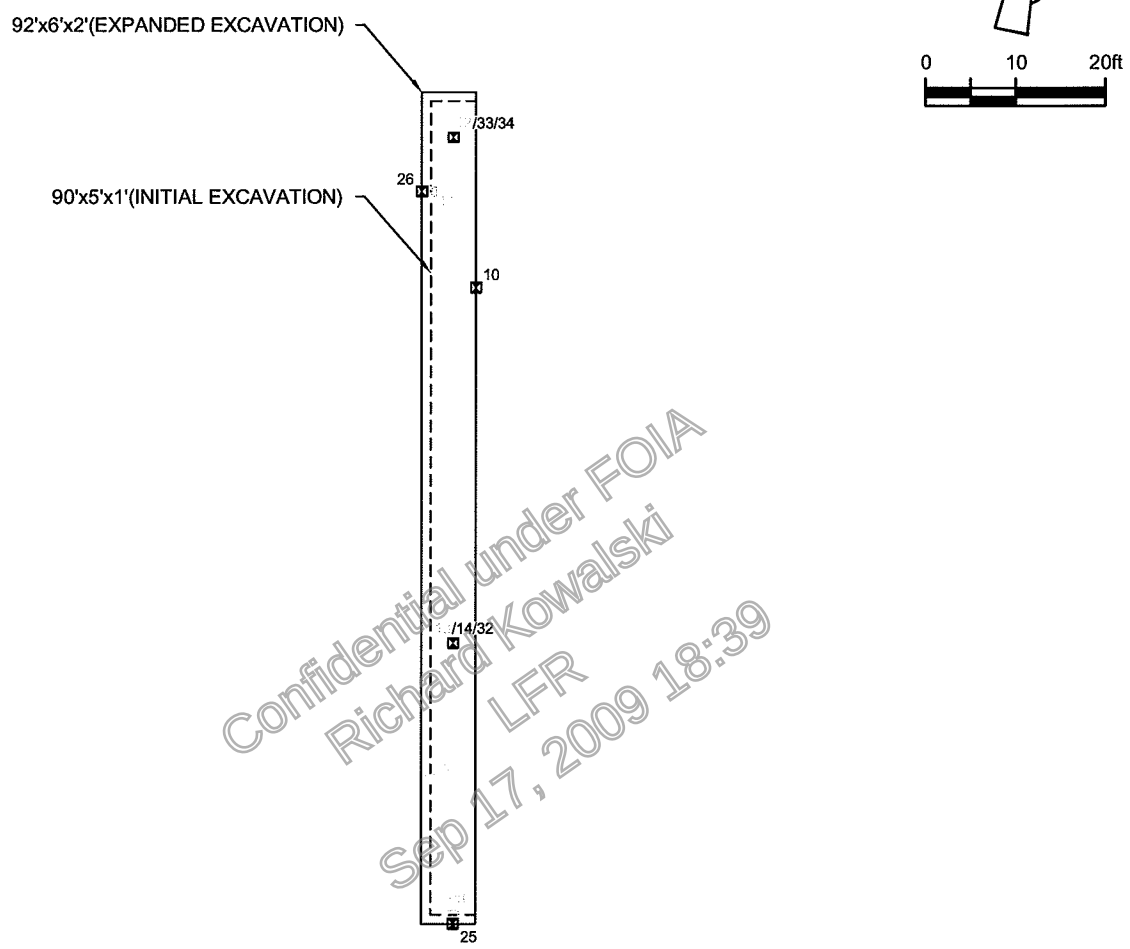
figure 8

SOIL EXCAVATION SAMPLE LOCATIONS IN VICINITY OF SB-378
MANGANESE IMPACTED SOIL
EAST/WEST CHANNEL
Saginaw, Michigan

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LEGEND

SOIL EXCAVATION SAMPLE LOCATION (REMOVED)

23 SOIL EXCAVATION SAMPLE LOCATION (REMAINING)

FINAL EXCAVATION BOUNDARY

INTERIM EXCAVATION BOUNDARY

figure 9

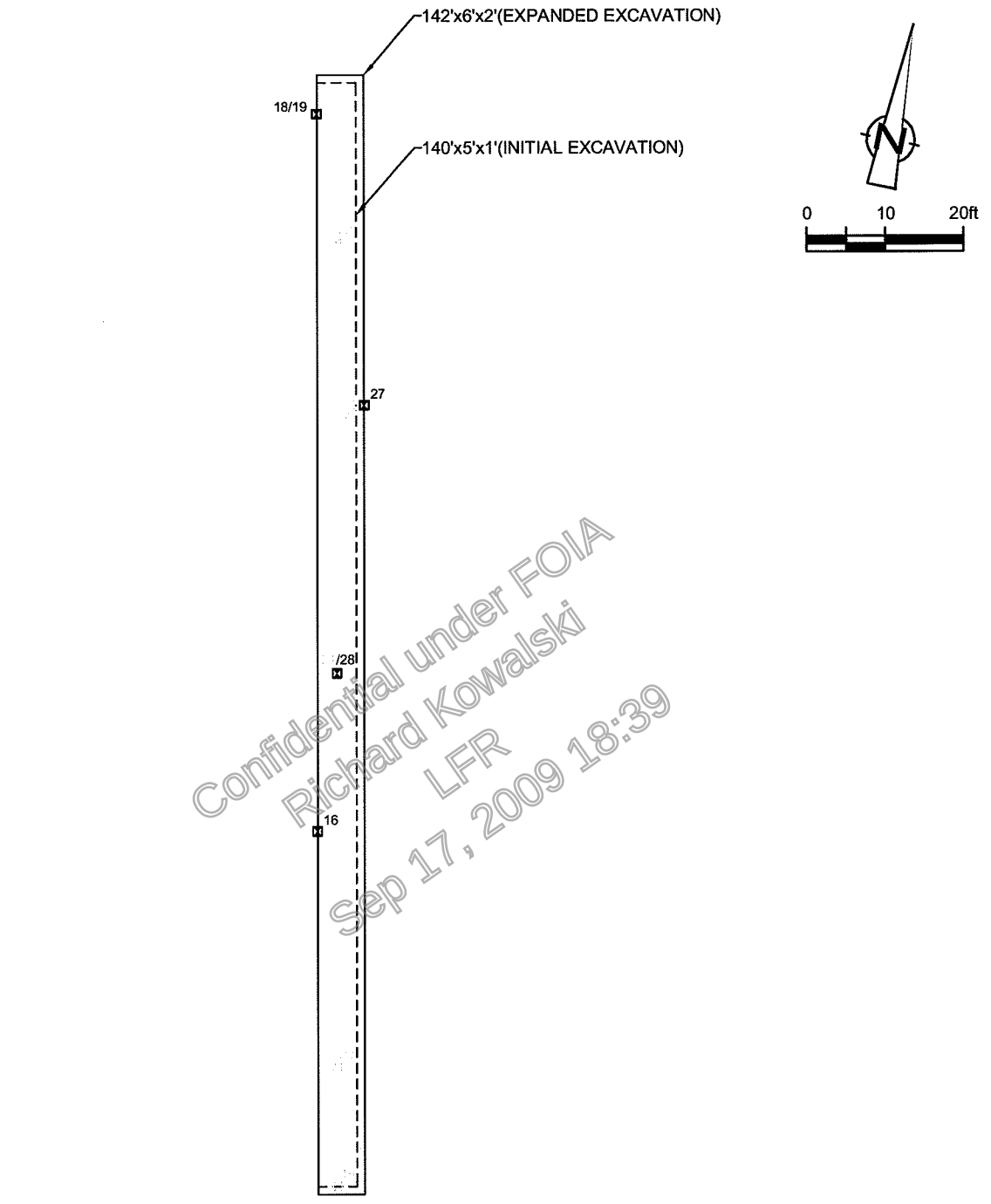
SOIL EXCAVATION SAMPLE LOCATIONS IN VICINITY OF SB-380
MANGANESE IMPACTED SOIL
EAST/WEST CHANNEL
Saginaw, Michigan

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figure 10

SOIL EXCAVATION SAMPLE LOCATIONS IN VICINITY OF SB-381
MANGANESE IMPACTED SOIL
EAST/WEST CHANNEL
Saginaw, Michigan

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Appendix G

Site Survey and Descriptions

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Appendix G

Legal Description of Site

General Motors Corporation Saginaw Malleable Iron Plant Property, and REALM, Inc. Green Point Landfill and Drum Remediation Area Saginaw, Michigan

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Infrastructure, environment, facilities

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Section 1. Legal Description of Site 1-1

1.1 SMI Plant Property Legal Description 1-1
1.2 REALM Green Point Landfill and Drum Remediation Area Property Legal Description 1-2

Figures

Survey Figures (provided on CD)

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1. Legal Description of Site

The Site encompasses approximately 273 acres. The SMI Plant Property consists of the northern portion of the Site and includes the SMI Plant and surrounding ancillary areas, two closed Type III Landfills, two stormwater ponds, and a Water Recycle System that includes a buffer basin. The southern portion of the Site (now owned by REALM, Inc.) includes the closed Green Point Landfill and the DRA, where drums were previously discovered, excavated, and removed.

The Site is located approximately 2,000 feet north of the confluence of the Tittabawassee and Shiawassee Rivers and is located on the western half of Section 35, T12N, R4E, in the city of Saginaw, Saginaw County, Michigan. The attached site survey includes the SMI Plant, the REALM Green Point Landfill and Drum Remediation Area Property, and the Eastern Property Extension. As shown on Figures 1-1 and 1-2 in the RAP, the *Site* includes the SMI Plant Property and the REALM Green Point Landfill and Drum Remediation Area Property only. A legal description of the SMI Plant Property and the REALM Green Point Landfill and Drum Remediation Area Property is provided below.

1.1 SMI Plant Property Legal Description

DESCRIPTION OF A 150.97 ACRE PARCEL OF LAND
(KNOWN AS SAGINAW MALLEABLE IRON PLANT PROPERTY)

Commencing at a found monument at the center-line intersections of Salt Road (66.00 feet wide) and Sylvan Road (60.00 feet wide) being part of Sections 34 & 35, T12N, R4E, City of Saginaw, Saginaw County, Michigan; thence N41°13'20"E 53.66 feet along the center-line of said Salt Road; thence S48°46'40"E 33.00 feet perpendicular to said center-line of said Salt Road for a **PLACE OF BEGINNING**; thence N41°13'20"E 155.86 feet along the Southeasterly Right-of-Way line of said Salt Road; thence S56°24'15"E 100.97 feet; thence S79°30'05"E 162.10 feet; thence N13°24'11"E 160.56 feet; thence along the Southwesterly Right-of-Way line of vacated relocated Florence Street (66.00 feet wide) as recorded thereof in Liber 1269, Page 348 of Saginaw County Records, N76°42'45"W 186.19 feet to the said Southeasterly Right-of-Way line of said Salt Road, said point being S44°49'19"E 33.08 feet from a found monument at the center-line of said Salt Road; thence N41°13'20"E 2.12 feet along the Southeasterly Line of said Salt Road; thence N41°30'33"E 1174.43 feet continuing along said Southeasterly Right-of-Way line of said Salt Road to the Southwesterly Right-of-Way Line of West Center Street (130.00 feet wide) for the following seven (7) courses: [1]S77°59'54"E 348.21 feet; [2]S53°41'09"E 303.68 feet; [3]S35°19'18"E 1142.28 feet; [4]S89°15'47"E 87.93 feet; [5]S46°59'44"E 117.45 feet; [6]S66°53'15"E 55.70 feet; [7]S75°13'36"E 193.96 feet to an intermediate traverse point "A"; said point "A" being N75°13'36"W 81.73 feet from the United States Harbor Line as recorded thereof in Liber 2194 Page 1169 of Saginaw County Records; thence S75°13'36"E 25 feet, plus or minus, to the Westerly Edge of Water of the Saginaw River; thence the following three (3) courses along an intermediate traverse line from aforementioned Intermediate Traverse point "A":[1] S03°21'51"E 548.91 feet, [2]S07°27'01"E 907.34 feet,[3] S10°55'18"E 798.66 feet to an Intermediate Traverse Point "B"; said point "B" being N89°42'41"W 121.04 feet from said United States Harbor Line; thence N89°40’46”W 720.87 feet to the East line of Consumers Power Company Right-of-Way (72.00 feet wide) as recorded thereof in Liber 1106 Pages, 426 & 427; thence N89°34'47"W 72.06 feet along the North line of said Right-of-Way; thence N01°57’47”W 100.28; thence N89°36’59”W 1421.88 feet; thence N00°07'58"E 1033.08 feet; thence N25°14'05"W 365.55 feet; thence N24°37'18"W 89.80 feet; thence N00°17'27"W 80.90 feet; thence N89°46'34"W 8.85 feet; thence N00°13'22"E 159.80 feet; thence N48°10'04"W 158.71 feet; thence N44°27'28"W 229.01 feet; thence N26°08'40"W 69.66 feet; thence N28°53'40"W 207.15 feet; thence N38°36'14"W 183.21 feet to the PLACE OF BEGINNING.

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Containing 150.97 acres of land, more or less, subject to easements, conditions, restrictions and exceptions of record, if any.

1.2 REALM Green Point Landfill and Drum Remediation Area Property Legal Description

DESCRIPTION OF A 122.23 ACRE PARCEL OF LAND
(REALM, INC. PROPERTY)

Commencing at the Northwest Corner of Section 2, being part of Sections 34 & 35, T12N, R4E, and part of Sections 2 & 3, T11N, R4E, City of Saginaw, Saginaw County, Michigan; thence N89°38'51"W 799.20 feet along the North line of said Section 2 for a **PLACE OF BEGINNING**; thence N00°07'03"W 812.05 feet; thence S89°39'56"E 453.71 feet; thence N00°08'29"E 499.70 feet; thence S89°40'47"E 349.80 feet; thence S00°10'11"W 524.17 feet; thence S89°35'00"E 300.33 feet; thence N00°07'58"E 98.85 feet; thence S89°36’59”E 1421.88 feet; thence S01°57’47”E 100.28 feet to the West line of Consumers Power Company Right-of-Way (72.00 feet wide) as recorded thereof in Liber 1106 Pages, 426 & 427; thence S01°57'47"E 1942.95 feet along said Consumers Power Company Right-of-Way; thence N89°53'29"W 1754.30 feet to a point being S01°59'22"E 1164.37 feet from the Northeast corner of said Section 3; thence N89°53'15"W 836.68 feet; thence N00°08'37"W 1166.95 feet to the Place of Beginning. Containing 122.23 acres of land, more or less, subject to easements, conditions, restrictions and exceptions of record, if any.

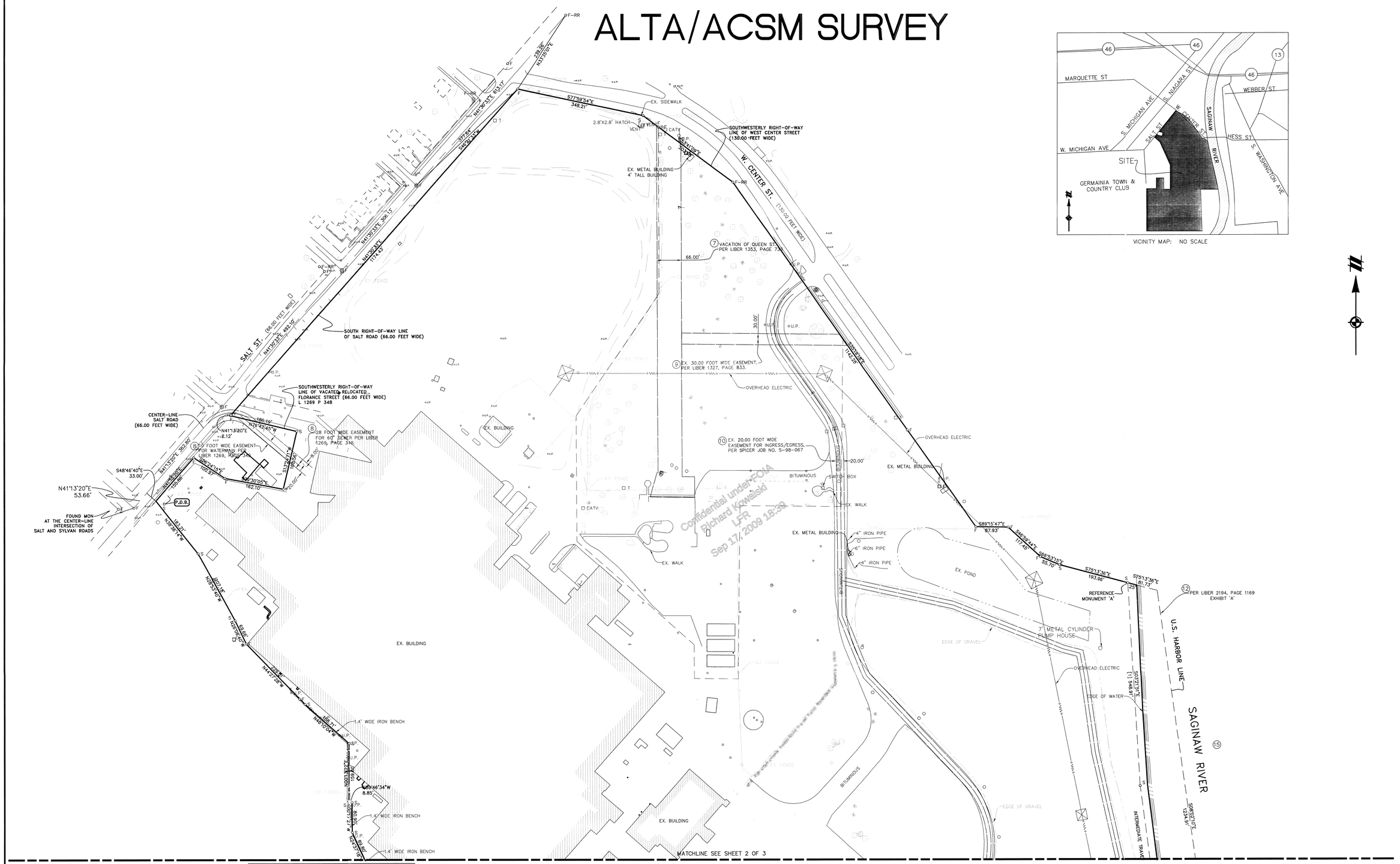
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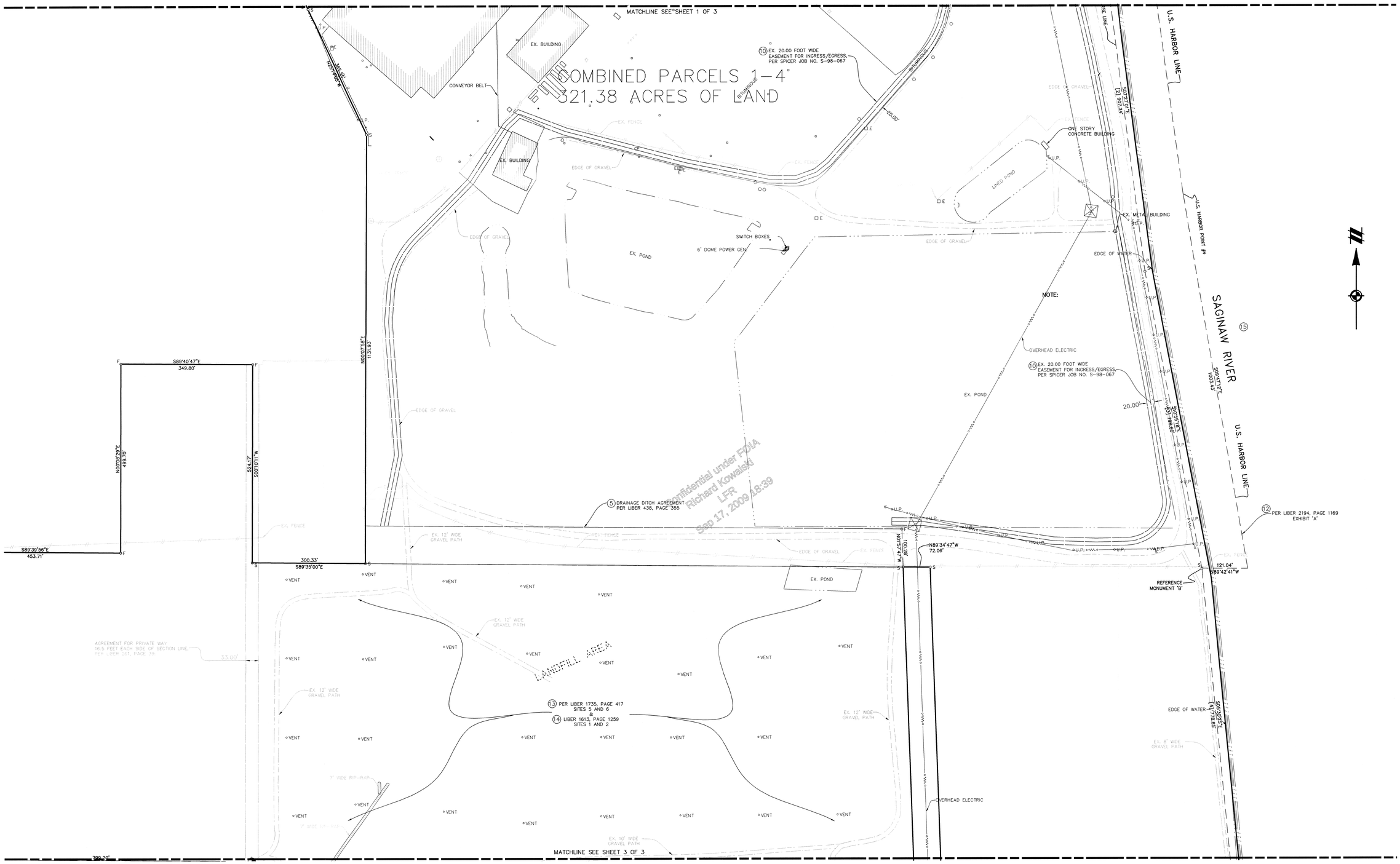
ALTA/ACSM SURVEY

VICINITY MAP: NO SCALE


SALT ST. (66.00 FEET WIDE)
SOUTH RIGHT-OF-WAY LINE OF SALT ROAD (66.00 FEET WIDE)
CENTER-LINE SALT ROAD (66.00 FEET WIDE)
SOUTHWESTERLY RIGHT-OF-WAY LINE OF VACATED RELOCATED FLORANCE STREET (66.00 FEET WIDE) L 1269 P 348
SOUTHWESTERLY RIGHT-OF-WAY LINE OF WEST CENTER STREET (130.00 FEET WIDE)
W. CENTER ST. (130.00 FEET WIDE)
FOUND MON AT THE CENTER-LINE INTERSECTION OF SALT AND SYLVAN ROADS
P.O.B.
N41°13'20"E 53.66'
S48°46'40"E 33.00'
N41°13'20"E 2.12'
N41°13'20"E 303.80'
N41°30'33"E 492.10'
N41°30'33"E 306.13'
N41°00'33"E 1174.43'
S77°59'54"E 348.21'
S41°30'33"W 813.17'
S48°01'30"W 393.13'
N33°35'01"E 29.28'
N41°30'33"E 813.17'
N48°53'40"W 207.15'
N41°27'58"W 336.71'
N48°10'04"W 159.80'
N41°27'28"W 229.01'
N44°27'28"W 158.71'
N48°10'04"W 159.80'
N41°27'28"W 229.01'
N48°53'40"W 69.66'
N48°53'40"W 207.15'
N48°36'14"W 183.21'
N48°36'14"W 183.21'
N48°53'40"W 69.66'
N48°53'40"W 207.15'
N41°27'58"W 336.71'
N48°10'04"W 159.80'
N41°27'28"W 229.01'
N44°27'28"W 158

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3 WORKING DAYS
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FOR THE LOCATION OF UNDERGROUND FACILITIES

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE:

CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR; NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

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SCHEDULE B – EXCEPTIONS

(5) Terms and conditions of Memorandum of Agreement as recorded in Liber 438 of Deeds on Page 355, Saginaw County Records. (AS SHOWN ON SURVEY)

(6) Terms and conditions of Acknowledgement Memorandum recorded in Liber 1608 on page 2179, Saginaw County Records. (AS SHOWN ON SURVEY)

(7) Reservation of an easement for public utilities in a portion of vacated Queen and Florence Streets as recorded in Liber 1353 on Page 833, Saginaw County Records. (AS SHOWN ON SURVEY)

(8) Reservation of easements for sewer and watermain as recorded in Liber 1269 on Page 348, Saginaw County Records. (AS SHOWN ON SURVEY)

(9) Reservation of easement for transmitting and distributing electricity as set forth in Quit Claim Deed recorded in Liber 1327 on Page 833, Saginaw County Records. (AS SHOWN ON SURVEY)

(10) Easements for ingress and egress as determined from the survey prepared by Spicer Group bearing Job No. S-98-067 and dated February 14, 2000 with revision on February 17, 2000. (AS SHOWN ON SURVEY)

(11) Terms and conditions of Notice of Possible Release of Hazardous Substances as recorded in Liber 2018 on Page 1916 and Liber 2018 on Page 1917, Saginaw County Records. (DOES NOT AFFECT) LIES WEST OF SUBJECT PARCEL

(12) Terms and conditions of Notice Regarding Statutory Obligations Applicable to Property as Recorded in Liber 2194 on Page 1169, Saginaw County Records. (BLANKET IN NATURE)

(13) Terms and conditions of Declaration of Restrictive Covenant dated January 24, 1985 between General Motors Corporation, a Delaware Corporation, and Michigan Department of Natural Resources, which is unrecorded and is evidenced by Amendment to Declaration of Restrictive Covenant dated September 1, 1988 and recorded November 4, 1988 in Liber 1735 on Page 417, Saginaw County Records. (NOT PLOTABLE)

(14) Terms and conditions of Declaration of Restrictive Covenant between General Motors Corporation, a Delaware Corporation, and Michigan Department of Natural Resources dated May 3, 1982 and recorded July 15, 1982 in Liber 1613 on Page 1259, Saginaw County Records. (NOT PLOTABLE)

(15) Rights of the United States Government, the State of Michigan, or any political subdivision thereof, and any private or the public in general with respect to the Saginaw River.

(16) Rights of way for railroad, switch tracks, spur tracks, railway facilities and other related easements, if any, on and across the subject property.

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OF A
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OF LAND
IN

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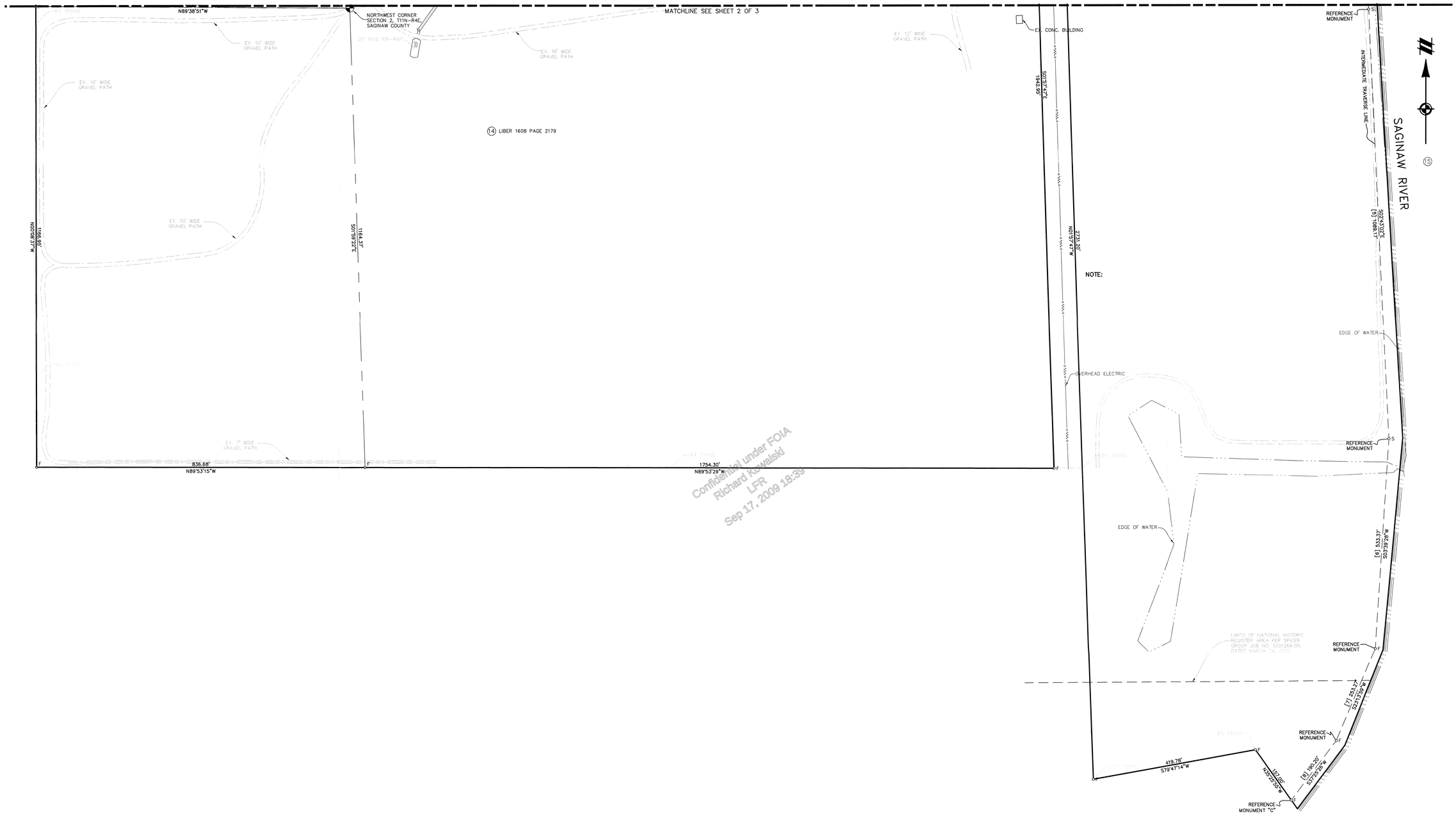
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NOTICE:

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Appendix H

Supplemental Groundwater Quality Data and Evaluation

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Appendix H
Remedial Action Plan

Supplemental Groundwater Quality Data

General Motors Corporation
Saginaw Malleable Iron Plant Property, and
REALM, Inc. Green Point Landfill and
Drum Remediation Area
Saginaw, Michigan

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1. Introduction

Supplemental groundwater sampling has been conducted adjacent to the Saginaw River during several monitoring events between November 2007 and June 2008. The program included sampling of the monitoring wells located east of the Green Point Landfill, adjacent to the Saginaw River, and also select monitoring wells located further north, along the river berm on the Saginaw Malleable Iron plant property. Note that several shallow monitoring wells screened within the berm fill material (MW-108WT, MW-110WT, MW-114WT, and X-4AR) that are included in the river perimeter sampling program due to past exceedances of the Generic Michigan Department of Environmental Quality (MDEQ) Groundwater Surface Water Interface (GSI) criteria, were dry and therefore were not sampled. These wells remain on the list of wells to be sampled on an annual basis, as described in the Site Operation, Maintenance, and Monitoring Plan (Appendix C). Nine monitoring wells located along the up-gradient, western site perimeter were also sampled for total dissolved solids (TDS) and ammonia to provide background data for those constituents. This appendix provides a summary of the groundwater analytical data collected adjacent to the Saginaw River, a further discussion of the data relative to background conditions in the case of TDS and ammonia, and a plan to address exceedances of the GSI criteria.

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2. Analytical Data

The validated data for groundwater samples collected between November 2007 and June 2008 from monitoring wells located in the Saginaw River berm area, for those constituents detected at concentrations above the Groundwater Surface Water Interface (GSI) criteria at one or more well, are shown in Table H-1. Note that comprehensive analytical data tables are provided in Appendix A. The TDS and ammonia analytical data collected from the nine monitoring wells located along the up-gradient site perimeter are shown in Table H-2. The monitoring well locations are shown on Figure H-1.

The following analytes were detected above GSI criteria during the November 2007 to June 2008 sampling interval: polychlorinated biphenyls (PCBs; 1 well), mercury (1 well), selenium (1 well), TDS (14 wells), and ammonia nitrogen (11 wells).

PCB detections have been noted during the past two sampling rounds at monitoring well B-7R, located east of the Secondary Settling Pond. We believe that these detections were caused by soil entrained in the sample. This well is located within the berm, which does contain low levels of PCBs in the soils. In response to this data, a new monitoring well was installed between B-7R and the Saginaw River during the week of July 14, 2008. Following development and a two-week time interval to allow the well to stabilize, a sample will be collected from the new well for PCB analysis. Depending on the results of sample analysis, the new well will be added to the annual groundwater monitoring program, or re-sampled. Follow-up actions in the case of PCB detection in the new well will follow the Site contingency plan.

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Mercury was detected in March 2008 at an estimated concentration below the quantitation limit at monitoring well X-9AR (Table H-1). The monitoring well was re-sampled in June 2008 and mercury was not detected. Mercury has not been identified as a constituent of concern associated with the landfill and had not previously been detected at the well. Therefore, the detection is believed to be anomalous and monitoring will continue on an annual basis.

Selenium was detected slightly above GSI criterion at monitoring well X-9AR in March 2008. Re-sampling in June 2008 indicated that selenium was not detected in the well. Monitoring of X-9AR for selenium will continue on an annual basis.

Total dissolved solids (TDS) concentrations exceeded the GSI criterion at two monitoring wells (MW-110WTR and MW-111WT) located east of the Eastern Type III Landfill, and at all of the wells located in the X-4 and X-9 monitoring well clusters located east of the Green Point Landfill (excluding X-4AR, which was dry). Additional sampling was completed to further evaluate background concentrations of TDS.

The background concentrations of TDS were obtained from two sources: the first, from establishing a background screening level (BSL) based on sampling completed at up-gradient shallow monitoring wells; and the second, by looking at regional data for the chemical and physical characteristics of natural groundwater in Michigan and data from the coal deposits and abandoned mines in the Saginaw County.

The background analytical data collected at the up-gradient Site perimeter are shown in Table H-2. To establish a background screening level (BSLs) for groundwater, the conventional approach is to calculate an upper tolerance limit (UTL) from the background data set, and to then compare data from site wells to the UTL on a point-by-point basis. Tolerance limits provide an interval within which, at least a certain proportion of the population lies with a specified probability that the stated interval does indeed “contain” that proportion of the population (USEPA, 2002). Consistent with USEPA guidance for establishing background screening levels

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(BSLs) for groundwater (USEPA, 1989; 1992; 1998a; 1998b), the statistical methods used in this report are based on the 95 percent confidence interval for the 95th percentile (95/95UTL). The 95/95UTL is the appropriate statistic for calculating a BSL for groundwater data when the intended use of the BSL is to compare data from unimpacted wells with data from potentially impacted wells. The site-specific BSL, calculated based on the nine shallow groundwater samples collected along the western edge of the Site, is 4,100 mg/L. The data are gamma distributed, and the 95/95 UTL is 5,548 mg/L. Since this concentration exceeds the maximum observed, the maximum concentration of 4,100 mg/L is accepted as the more reliable measure. Since the background data set is small, and contains one data point that is a statistically significant outlier, another way to look at the background concentration is to calculate the 95/95 UTL based on the data excluding the outlier. The resulting data set is normally distributed, and results in a BSL of 2,200 mg/L.

The GSI criterion for ammonia is based on an estimate of the percentage of the total ammonia that is likely present as unionized ammonia given the pH and temperature of the receiving water body. The estimated concentrations of unionized ammonia shown in Table H-1 are calculated based on the MDEQ default value of 7.2 % of total ammonia nitrogen for warm water surface water. The GSI criterion for ammonia was exceeded at 11 river perimeter monitoring wells. The background data collected from the nine monitoring wells located along the up-gradient Site perimeter show low levels of ammonia in the shallow groundwater (Table H-2).

A review of the data adjacent to the Saginaw River east of the Green Point Landfill shows concentrations of TDS, ammonia, and also chloride, sodium, and sulfate that are higher than would be expected in the deepest wells installed in the deep sand unit, given the concentrations observed up-gradient, near the landfill. As discussed in the Remedial Investigation report, vertical flow gradients are upward near the river, indicating flow upward from the underlying bedrock to the overburden deposits. Due to the presence of heavily mineralized groundwater within the bedrock, an abandoned coal mine beneath a portion of the Site (in the vicinity of the Drum Remediation Area), and the former presence of a flowing artesian oil exploration well south of the Site, impacts from the deeper overburden and bedrock units are likely. To further investigate the nature of these impacts, available literature was reviewed.

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Saginaw County is underlain by the Pennsylvanian Aquifer (Saginaw Formation) where it is overlain by, and hydraulically connected with the surficial aquifer system (USGS, 1992). The water from the Pennsylvanian aquifer in this area is salty (dissolved-solids concentrations in excess of 1,260 milligrams per liter) and tends to be a sodium chloride type, the same type found in the deep wells located near the river edge.

Figure H-2 shows a comparison of TDS concentrations observed at the deep sand monitoring wells located adjacent to the river (X-4D and X-9D), the deep monitoring wells located closer to the Green Point Landfill (MW-117S2 and MW-118S2), and natural background concentrations obtained from published sources. The illustrated background concentrations were obtained from *Chemical and Physical Characteristics of Natural Groundwater in Michigan* and from *Coal Deposits and Abandoned Mines in the Saginaw County* (Cummings, 1980, 1989, and Handy, 1982). This figure shows an increase in TDS observed in the deep wells located near the river, when compared to data from wells located closer to the landfill, illustrating the impact of flow from deeper groundwater flow zones.

Handy (1982), in a study of the water quality of coal deposits and abandoned mines of Saginaw County found values of up to 9.20 mg/L of ammonia nitrogen, illustrating that the nearby abandoned coal mine may also be contributing ammonia to the deep wells located adjacent to the river.

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3. Summary and Conclusions

To address the constituents identified in the river perimeter wells at concentrations above the GSI criteria, the following actions will be taken:

- As described above, to respond to the detection of PCBs at monitoring well B-7R, a new monitoring well will be installed closer to the river and sampled, and additional actions will be undertaken based on the result of that sampling, as described in the Site contingency plan;
- Monitoring will continue for mercury to confirm that the detection at X-9AR was an anomaly; and
- A mixing zone application will be submitted for selenium and ammonia present in the shallow sand zone.

The TDS concentrations found adjacent to the river are representative of background concentrations, based on sampling completed at the up-gradient site edge, and no actions are required. Based on the presence of upward flow gradients from the bedrock to the overburden adjacent to the river, the naturally high levels of ammonia and TDS associated with the bedrock and high ammonia levels associated with coal mines, we do not believe that the elevated levels of these analytes found in deep sand wells X-4D and X-9D are associated with the Green Point Landfill.

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4. References

Cummings, T.R., 1989, U.S. Natural Ground-Water Quality in Michigan 1974-1987, Geological Survey Open-File Report 89-259

Handy, A.H., 1982, Water Quality of Coal Deposits and Abandoned Mines, Saginaw County, Michigan, U.S. Geological Survey, Open-File Report 82-511

Olcott, P.G., 1992Ground Water Atlas of the United States, Iowa, Michigan, Minnesota, Wisconsin, HA 730-J, U.S. Geological Survey.

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TABLES

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TABLE H-1
GROUNDWATER ANALYTICAL RESULTS - RIVER PERIMETER WELLS
CONSTITUENTS DETECTED ABOVE GSI CRITERIA IN ONE OR MORE WELL
NOVEMBER 2007 THROUGH JUNE 2008

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID: / Date Collected:	Units	Groundwater Surface Water Interface	B-7R 11/28/07	B-7R 06/03/08	MW-107S1 06/06/08	MW-107WT 04/03/08	MW-108S1 06/03/08	MW-108S2 06/06/08	MW-110WTR 04/02/08	MW-111WT 04/02/08
PCBs										
Aroclor-1016	mg/L	- -	ND(0.00020)	NA	NA	NA	NA	NA	ND(0.00020)	ND(0.00020) [ND(0.00020)]
Aroclor-1221	mg/L	- -	ND(0.00020)	NA	NA	NA	NA	NA	ND(0.00020)	ND(0.00020) [ND(0.00020)]
Aroclor-1232	mg/L	- -	ND(0.00020)	NA	NA	NA	NA	NA	ND(0.00020)	ND(0.00020) [ND(0.00020)]
Aroclor-1242	mg/L	- -	ND(0.00020)	NA	NA	NA	NA	NA	ND(0.00020)	ND(0.00020) [ND(0.00020)]
Aroclor-1248	mg/L	- -	0.00031	NA	NA	NA	NA	NA	ND(0.00020)	ND(0.00020) [ND(0.00020)]
Aroclor-1254	mg/L	- -	ND(0.00020)	NA	NA	NA	NA	NA	ND(0.00020)	ND(0.00020) [ND(0.00020)]
Aroclor-1260	mg/L	- -	ND(0.00020)	NA	NA	NA	NA	NA	ND(0.00020)	ND(0.00020) [ND(0.00020)]
Aroclor-1262	mg/L	- -	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	mg/L	- -	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	mg/L	0.0002 {J,T,M}	0.00031(GSI)	0.00030(GSI) [0.00028(GSI)]	NA	NA	NA	NA	ND(0.00020)	ND(0.00020) [ND(0.00020)]
Inorganics										
Arsenic	mg/L	0.15 {X}	NA	NA	NA	0.000950 J	NA	NA	NA	NA
Mercury	mg/L	0.0000013 {B,Z}	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	mg/L	0.005 {B}	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/L	0.0037 {B,I, X}	NA	NA	NA	ND(0.00100)	NA	NA	NA	NA
Miscellaneous										
Ammonia Nitrogen	mg/L	- -	1.7	NA	1.2 J	0.3	NA	3.5	0.09 J	0.5 [0.5]
Estimated Unionized Ammonia	mg/L	0.053 {CC}	0.1224(GSI)	NA	0.086(GSI)	0.0216	NA	0.252(GSI)	0.00648 J	0.036 [0.036]
Total Dissolved Solids (TDS)	mg/L	500 {EE}	440	NA	800 J(GSI)	NA	1,100(GSI)	910 (GSI)	1,500(GSI)	580(GSI) [590(GSI)]

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TABLE H-1
GROUNDWATER ANALYTICAL RESULTS - RIVER PERIMETER WELLS
CONSTITUENTS DETECTED ABOVE GSI CRITERIA IN ONE OR MORE WELL
NOVEMBER 2007 THROUGH JUNE 2008

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID: / Date Collected:	Units	Groundwater Surface Water Interface	MW-111S2 06/06/08	MW-112WT 11/27/07	MW-113WT 06/03/08	MW-114S2 06/06/08	MW-149WT 04/03/08	MW-183WT 01/09/08	MW-183WT 03/12/08
PCBs									
Aroclor-1016	mg/L	- -	NA	ND(0.00020)	NA	NA	NA	NA	NA
Aroclor-1221	mg/L	- -	NA	ND(0.00020)	NA	NA	NA	NA	NA
Aroclor-1232	mg/L	- -	NA	ND(0.00020)	NA	NA	NA	NA	NA
Aroclor-1242	mg/L	- -	NA	ND(0.00020)	NA	NA	NA	NA	NA
Aroclor-1248	mg/L	- -	NA	0.00016 J	NA	NA	NA	NA	NA
Aroclor-1254	mg/L	- -	NA	ND(0.00020)	NA	NA	NA	NA	NA
Aroclor-1260	mg/L	- -	NA	ND(0.00020)	NA	NA	NA	NA	NA
Aroclor-1262	mg/L	- -	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	mg/L	- -	NA	NA	NA	NA	NA	NA	NA
Total PCBs	mg/L	0.0002 {J,T,M}	NA	0.00016 J	NA	NA	NA	NA	NA
Inorganics									
Arsenic	mg/L	0.15 {X}	NA	NA	NA	NA	0.0936 [0.0923]	ND(0.00500) [ND(0.00500)]	ND(0.00500)
Mercury	mg/L	0.0000013 {B,Z}	NA	NA	NA	NA	NA	ND(0.000200) [ND(0.000200)]	ND(0.000200)
Selenium	mg/L	0.005 {B}	NA	NA	NA	NA	NA	ND(0.00500) [ND(0.00500)]	ND(0.00500)
Thallium	mg/L	0.0037 {B,I, X}	NA	ND(0.00100)	NA	NA	0.000180 J [ND(0.00100)]	ND(0.00100) [ND(0.00100)]	ND(0.00100)
Miscellaneous									
Ammonia Nitrogen	mg/L	- -	1.4	0.6	0.7	2.5	0.8	0.4 [0.3]	0.3
Estimated Unionized Ammonia	mg/L	0.053 {CC}	0.10(GSI)	0.0432	0.0504	0.18(GSI)	0.0576(GSI)	0.0288 [0.0216]	0.0216
Total Dissolved Solids (TDS)	mg/L	500 {EE}	670 (GSI)	400	NA	560 (GSI)	NA	440 [470]	520(GSI)

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TABLE H-1
GROUNDWATER ANALYTICAL RESULTS - RIVER PERIMETER WELLS
CONSTITUENTS DETECTED ABOVE GSI CRITERIA IN ONE OR MORE WELL
NOVEMBER 2007 THROUGH JUNE 2008

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID: / Date Collected:	Units	Groundwater Surface Water Interface	MW-185WT 11/28/07	X-4CAUGR 01/09/08	X-4CAUGR 03/12/08	X-4D 01/09/08	X-4D 04/01/08	X-4D 04/02/08
PCBs								
Aroclor-1016	mg/L	- -	ND(0.00020) [ND(0.00020)]	NA	NA	ND(0.00020)	NA	ND(0.00020)
Aroclor-1221	mg/L	- -	ND(0.00020) [ND(0.00020)]	NA	NA	ND(0.00020)	NA	ND(0.00020)
Aroclor-1232	mg/L	- -	ND(0.00020) [ND(0.00020)]	NA	NA	ND(0.00020)	NA	ND(0.00020)
Aroclor-1242	mg/L	- -	ND(0.00020) [ND(0.00020)]	NA	NA	ND(0.00020)	NA	ND(0.00020)
Aroclor-1248	mg/L	- -	0.00017 J [ND(0.00020)]	NA	NA	ND(0.00020)	NA	ND(0.00020)
Aroclor-1254	mg/L	- -	ND(0.00020) [ND(0.00020)]	NA	NA	ND(0.00020)	NA	ND(0.00020)
Aroclor-1260	mg/L	- -	ND(0.00020) [ND(0.00020)]	NA	NA	ND(0.00020)	NA	ND(0.00020)
Aroclor-1262	mg/L	- -	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	mg/L	- -	NA	NA	NA	NA	NA	NA
Total PCBs	mg/L	0.0002 {J,T,M}	0.00017 J [ND(0.00020)]	NA	NA	ND(0.00020)	NA	ND(0.00020)
Inorganics								
Arsenic	mg/L	0.15 {X}	NA	ND(0.00500)	ND(0.00500)	ND(0.00500)	NA	NA
Mercury	mg/L	0.0000013 {B,Z}	NA	ND(0.000200)	ND(0.000200)	ND(0.000200)	NA	NA
Selenium	mg/L	0.005 {B}	NA	ND(0.00500)	ND(0.00500)	ND(0.00500)	NA	NA
Thallium	mg/L	0.0037 {B,I, X}	NA	ND(0.00100)	ND(0.00100)	ND(0.00100)	NA	NA
Miscellaneous								
Ammonia Nitrogen	mg/L	- -	ND(0.3) [ND(0.3)]	1.5	2	6.9	8.8 [8.1]	NA
Estimated Unionized Ammonia	mg/L	0.053 {CC}	ND(0.0216) [ND(0.0216)]	0.108(GSI)	0.144(GSI)	0.4968(GSI)	0.6336(GSI) [0.5832(GSI)]	NA
Total Dissolved Solids (TDS)	mg/L	500 {EE}	400 [380]	550(GSI)	580(GSI)	2,300(GSI)	2,500(GSI) [2,600 J(GSI)]	NA

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TABLE H-1
GROUNDWATER ANALYTICAL RESULTS - RIVER PERIMETER WELLS
CONSTITUENTS DETECTED ABOVE GSI CRITERIA IN ONE OR MORE WELL
NOVEMBER 2007 THROUGH JUNE 2008

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID: / Date Collected:	Units	Groundwater Surface Water Interface	X-4D 04/03/08	X-4D 06/05/08	X-9AR 01/10/08	X-9AR 03/11/08	X-9AR 06/05/08	X-9BR 01/08/08
PCBs								
Aroclor-1016	mg/L	- -	NA	NA	NA	NA	NA	NA
Aroclor-1221	mg/L	- -	NA	NA	NA	NA	NA	NA
Aroclor-1232	mg/L	- -	NA	NA	NA	NA	NA	NA
Aroclor-1242	mg/L	- -	NA	NA	NA	NA	NA	NA
Aroclor-1248	mg/L	- -	NA	NA	NA	NA	NA	NA
Aroclor-1254	mg/L	- -	NA	NA	NA	NA	NA	NA
Aroclor-1260	mg/L	- -	NA	NA	NA	NA	NA	NA
Aroclor-1262	mg/L	- -	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	mg/L	- -	NA	NA	NA	NA	NA	NA
Total PCBs	mg/L	0.0002 {J,T,M}	NA	NA	NA	NA	NA	NA
Inorganics								
Arsenic	mg/L	0.15 {X}	ND(0.00500)	NA	ND(0.00500)	ND(0.00500)	NA	ND(0.00500)
Mercury	mg/L	0.0000013 {B,Z}	ND(0.000200)	NA	ND(0.000200)	0.000130 J(GSI)	ND(0.0002) [ND(0.0002)]	ND(0.000200)
Selenium	mg/L	0.005 {B}	ND(0.00500)	NA	ND(0.00500)	0.00820(GSI)	ND(0.005) [ND(0.005)]	ND(0.00500)
Thallium	mg/L	0.0037 {B,I, X}	ND(0.00100)	NA	ND(0.00100)	ND(0.00100)	NA	ND(0.00100)
Miscellaneous								
Ammonia Nitrogen	mg/L	- -	NA	6.2 {7.32}	0.3	ND(0.2)	NA	5.2
Estimated Unionized Ammonia	mg/L	0.053 {CC}	NA	0.446(GSI) [0.527(GSI)]	0.0216	ND(0.0144)	NA	0.3744(GSI)
Total Dissolved Solids (TDS)	mg/L	500 {EE}	NA	3,300(GSI) [2,820(GSI)]	770(GSI)	600(GSI)	NA	810(GSI)

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TABLE H-1
GROUNDWATER ANALYTICAL RESULTS - RIVER PERIMETER WELLS
CONSTITUENTS DETECTED ABOVE GSI CRITERIA IN ONE OR MORE WELL
NOVEMBER 2007 THROUGH JUNE 2008

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID: / Date Collected:	Units	Groundwater Surface Water Interface	X-9BR 03/11/08	X-9CAUG 01/08/08	X-9CAUG 03/11/08	X-9D 01/08/08	X-9D 03/11/08	X-9D 06/05/08
PCBs								
Aroclor-1016	mg/L	- -	NA	NA	NA	ND(0.00020)	ND(0.00020)	NA
Aroclor-1221	mg/L	- -	NA	NA	NA	ND(0.00020)	ND(0.00020)	NA
Aroclor-1232	mg/L	- -	NA	NA	NA	ND(0.00020)	ND(0.00020)	NA
Aroclor-1242	mg/L	- -	NA	NA	NA	ND(0.00020)	ND(0.00020)	NA
Aroclor-1248	mg/L	- -	NA	NA	NA	ND(0.00020)	ND(0.00020)	NA
Aroclor-1254	mg/L	- -	NA	NA	NA	ND(0.00020)	ND(0.00020)	NA
Aroclor-1260	mg/L	- -	NA	NA	NA	ND(0.00020)	ND(0.00020)	NA
Aroclor-1262	mg/L	- -	NA	NA	NA	NA	NA	NA
Aroclor-1268 (PCB-1268)	mg/L	- -	NA	NA	NA	NA	NA	NA
Total PCBs	mg/L	0.0002 {J,T,M}	NA	NA	NA	ND(0.00020)	ND(0.00020)	NA
Inorganics								
Arsenic	mg/L	0.15 {X}	ND(0.00500)	ND(0.00500)	ND(0.00500)	ND(0.00500)	ND(0.00500)	NA
Mercury	mg/L	0.0000013 {B,Z}	ND(0.000200)	ND(0.000200)	ND(0.000200)	ND(0.000200)	ND(0.000200)	NA
Selenium	mg/L	0.005 {B}	ND(0.00500)	ND(0.00500)	ND(0.00500)	ND(0.00500)	ND(0.00500)	NA
Thallium	mg/L	0.0037 {B,I,X}	ND(0.00100)	ND(0.00100)	ND(0.00100)	ND(0.00100)	ND(0.00100)	NA
Miscellaneous								
Ammonia Nitrogen	mg/L	-	5	3.2	3.3	8.5	9.7	7.52
Estimated Unionized Ammonia	mg/L	0.053 {CC}	0.36(GSI)	0.2304(GSI)	0.2376(GSI)	0.612(GSI)	0.6984(GSI)	0.541(GSI)
Total Dissolved Solids (TDS)	mg/L	500 {EE}	760(GSI)	700(GSI)	680(GSI)	2,400(GSI)	2,500(GSI)	2,980(GSI)

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TABLE H-1
GROUNDWATER ANALYTICAL RESULTS - RIVER PERIMETER WELLS
CONSTITUENTS DETECTED ABOVE GSI CRITERIA IN ONE OR MORE WELL
NOVEMBER 2007 THROUGH JUNE 2008

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

General Notes:

Samples were collected by ARCADIS, and submitted Test America Laboratories in North Canton, Ohio for analysis.
Duplicate results are presented in brackets.
Groundwater concentrations are presented in milligram per liter (mg/L), except where noted.
Total PCBs reported as the sum of PCB Aroclors.
* Although not detected above GSI criteria during this sampling interval, constituent is included in table due to past exceedences.
The estimated unionized ammonia (NH_3) concentrations calculated for the monitoring wells located adjacent to the Saginaw River are based on the MDEQ default value of 7.2% of total ammonia nitrogen for warm water surface water.
Shaded and bolded cells represent constituent concentrations that exceed at least one of the listed Michigan Part 201 Criteria:
For Groundwater Adjacent to Saginaw River:
GSI = Groundwater/Surface Water Interface criteria, updated January 2006.

Data Qualifiers:

ND = Not detected. The value in parentheses represents the associated detection limit.
NA = Not analyzed for this constituent.
B = Inorganics: the detected analyte is and estimated value between the instrument detection limit and the reporting limit.
B = Organics: the compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
BJ = The detected analyte is an estimated concentration between the IDL and the RL.
U = The constituent was analyzed for but not detected. The associated value is the constituent quantitation limit.
UJ = The constituent was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual result.
D = Concentration is based on a diluted sample analysis.
J = The compound/constituent was positively identified; however, the associated numerical value is an estimated concentration only.
R = Indicates that the previously reported detection limit or sample result has been rejected due to a major deficiency in the data generation procedure. The data shall not be used for any qualitative or quantitative purposes.

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MDEQ Criteria Qualifiers:

(B) Background, as defined in R 299.5701(b), may be substituted if higher than the calculated cleanup criterion.
(I) Hazardous substance may exhibit the characteristic of ignitability as defined in 40 C.F.R. §261.21 (revised as of July 1, 2001),
(J) Hazardous substance may be present in several isomer forms. Isomer-specific concentrations shall be added together for comparison to criteria.
(M) Calculated criterion is below the analytical target detection limit, therefore, the criterion defaults to the target detection limit.
(T) Refer to the federal Toxic Substances Control Act (TSCA), 40 C.F.R. §761, Subpart D and 40 C.F.R. §761, Subpart G, to determine the applicability of TSCA cleanup standards. Subpart D and Subpart G of 40 C.F.R. §761 (July 1, 2001) are adopted by reference in these rules and are available for inspection at the DEQ, 525 West Allegan Street, Lansing, Michigan. Copies of the regulations may be purchased, at a cost as of the time of adoption of these rules of $55, from the Superintendent of Documents, Government Printing Office, Washington, DC 20401, or from the DEQ, RRD, 525 West Allegan Street, Lansing, Michigan 48933, at cost. Alternatives to compliance with the TSCA standards listed below are possible under 40 C.F.R. §761 Subpart D. New releases may be subject to the standards identified in 40 C.F.R. §761, Subpart G. Use Part 201 soil direct contact cleanup criteria in the following table if TSCA standards are not applicable.

Land Use Category	TSCA, Subpart D Cleanup Standards	Part 201 Soil Direct Contact Cleanup Criteria
Residential & Commercial I	1,000 ppb, or 10,000	4,000 ppb
Industrial & Commercial II	1,000 ppb, or 10,000	16,000 ppb
Commercial III	1,000 ppb, or 10,000	33,000 ppb
Commercial IV	1,000 ppb, or 10,000	22,000 ppb

(X) The GSI criterion shown in the generic cleanup criteria tables is not protective for surface water that is used as a drinking water source. For a groundwater discharge to the Great Lakes and their connecting waters or discharge in close proximity to a water supply intake in inland surface waters, the generic GSI criterion shall be the surface water human drinking water value (HDV) listed in the table in this footnote, except for those HDV indicated with an asterisk. For HDV with an asterisk, the generic GSI criterion shall be the lowest of the HDV, the WV, and the calculated FCV. see formulas in footnote (G). Soil protection criteria based on the HDV shall be as listed in the table in this footnote, except for those values with an asterisk. Soil GSI protection criteria based on the HDV shall be as listed in the table in this footnote, except for those values with an asterisk. Soil GSI protection criteria for compounds with an asterisk shall be the greater of 20 times the GSI criterion or the GSI soil-water partition values using the GSI criteria developed with the procedure described in this footnote.

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TABLE H-1
GROUNDWATER ANALYTICAL RESULTS - RIVER PERIMETER WELLS
CONSTITUENTS DETECTED ABOVE GSI CRITERIA IN ONE OR MORE WELL
NOVEMBER 2007 THROUGH JUNE 2008

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

MDEQ Criteria Qualifiers (Cont'd.):

(Z) Mercury is typically measured as total mercury. The generic cleanup criteria, however, are based on data for different species of mercury. Specifically, data for elemental mercury, chemical abstract service (CAS) number 7439976, serve as the basis for the soil volatilization to indoor air criteria, groundwater volatilization to indoor air, and soil inhalation criteria. Data for methyl mercury, CAS number 22967926, serve as the basis for the GSI criterion; and data for mercuric chloride, CAS number 7487947, serve as the basis for the drinking water, groundwater contact, soil direct contact, and the groundwater protection criteria. Comparison to criteria shall be based on species-specific analytical data only if sufficient facility characterization has been conducted to rule out the presence of other species of mercury.

(CC) Groundwater: The generic GSI criteria are based on the toxicity of unionized ammonia (NH3); the criteria are 29 ug/L and 53 ug/L for cold water and warm water surface water, respectively. As a result, the GSI criterion shall be compared to the percent of the total ammonia concentration in the groundwater that will become NH3 in the surface water. This percent NH3 is a function of the pH and temperature of the receiving surface water and can be estimated using the following table, taken from Emerson, et al., (Journal of the Fisheries Research Board of Canada, Volume 32(12):2382, 1975).

Percent NH_3 in Aqueous Ammonia Solutions for 0-30 ^oC and pH 6-10

Temp	Temp	pH								
(^oF)	(^oC)	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10.0
32.0	0	0.00827	0.0261	0.0826	0.261	0.820	2.55	7.64	20.7	45.3
33.8	1	0.00899	0.0284	0.0898	0.284	0.891	2.77	8.25	22.1	47.3
35.6	2	0.00977	0.0309	0.0977	0.308	0.968	3.00	8.90	23.6	49.4
37.4	3	0.0106	0.0336	0.106	0.335	1.05	3.25	9.60	25.1	51.5
39.2	4	0.0115	0.0364	0.115	0.363	1.14	3.52	10.3	26.7	53.5
41.0	5	0.0125	0.0395	0.125	0.394	1.23	3.80	11.1	28.3	55.6
42.8	6	0.0136	0.0429	0.135	0.427	1.34	4.11	11.9	30.0	57.6
44.6	7	0.0147	0.0464	0.147	0.462	1.45	4.44	12.8	31.7	59.5
46.4	8	0.0159	0.0503	0.159	0.501	1.57	4.79	13.7	33.5	61.4
48.2	9	0.0172	0.0544	0.172	0.542	1.69	5.16	14.7	35.3	63.3
50.0	10	0.0186	0.0589	0.186	0.586	1.83	5.56	15.7	37.1	65.1
51.8	11	0.0201	0.0637	0.201	0.633	1.97	5.99	16.8	38.9	66.8
53.6	12	0.0218	0.0688	0.217	0.684	2.13	6.44	17.9	40.8	68.5
55.4	13	0.0235	0.0743	0.235	0.738	2.30	6.92	19.0	42.6	70.2
57.2	14	0.0254	0.0802	0.253	0.796	2.48	7.43	20.2	44.5	71.7
59.0	15	0.0274	0.0865	0.273	0.859	2.67	7.97	21.5	46.4	73.3
60.8	16	0.0295	0.0933	0.294	0.925	2.87	8.54	22.8	48.3	74.7
62.6	17	0.0318	0.101	0.317	0.996	3.08	9.14	24.1	50.2	76.1
64.4	18	0.0343	0.108	0.342	1.07	3.31	9.78	25.5	52.0	77.4
66.2	19	0.0369	0.117	0.368	1.15	3.56	10.5	27.0	53.9	78.7
68.0	20	0.0397	0.125	0.396	1.24	3.82	11.2	28.4	55.7	79.9
69.8	21	0.0427	0.135	0.425	1.33	4.10	11.9	29.9	57.5	81.0
71.6	22	0.0459	0.145	0.457	1.43	4.39	12.7	31.5	59.2	82.1
73.4	23	0.0493	0.156	0.491	1.54	4.70	13.5	33.0	60.9	83.2
75.2	24	0.0530	0.167	0.527	1.65	5.03	14.4	34.6	62.6	84.1
77.0	25	0.0569	0.180	0.566	1.77	5.38	15.3	36.3	64.3	85.1
78.8	26	0.0610	0.193	0.607	1.89	5.75	16.2	37.9	65.9	85.9
80.6	27	0.0654	0.207	0.651	2.03	6.15	17.2	39.6	67.4	86.8
82.4	28	0.0701	0.221	0.697	2.17	6.56	18.2	41.2	68.9	87.3
84.2	29	0.0752	0.237	0.747	2.32	7.00	19.2	42.9	70.4	88.3
86.0	30	0.0805	0.254	0.799	2.48	7.46	20.3	44.6	71.8	89.0

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TABLE H-1
GROUNDWATER ANALYTICAL RESULTS - RIVER PERIMETER WELLS
CONSTITUENTS DETECTED ABOVE GSI CRITERIA IN ONE OR MORE WELL
NOVEMBER 2007 THROUGH JUNE 2008

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

MDEQ Criteria Qualifiers (Cont'd.):

The generic approach for estimating NH3 assumes a default pH of 8 and default temperatures of 68 F and 85 F for cold water and warm water surface water, respectively. The resulting percent NH3 is 3.8 percent and 7.2 percent for cold water and warm water, respectively. This default percentage shall be multiplied by the total ammonia-nitrogen (NH3-N) concentration in the groundwater and the resulting NH3 concentration compared to the applicable GSI criterion. As an alternative, the maximum pH and temperature data from the specific receiving surface water can be used to estimate, from the table in this footnote, a lower percent unionized ammonia concentration for comparison to the generic GSI.

(EE) Soil: The generic soil GSI protection criteria for unionized ammonia are 580 ug/kg and 1,100 ug/kg for cold water and warm water surface water, respectively. The following are applicable generic GSI criteria as required by Section 20120a(15) of the NREPA.

Hazardous Substance	GSI (ug/L)	Notes
Phosphorus	1,000	Criteria applicable unless receiving water is a surface water that has a phosphorus waste load allocation or is an inland lake. In those cases, contact the department for applicable values.
Total dissolved solids (TDS)	5.00E+05	If TDS data are not available, the TDS criterion may be used a screening level for the sum of the concentrations of the following substances:
		Calcium, Chlorides, Iron, Magnesium,
		Potassium, Sodium, Sulfate.
Dissolved Oxygen (DO): Cold receiving waters Warm receiving waters	≥ 7,000 ≥ 5,000	Since a low level of DO can be harmful to aquatic life, the criterion represents a minimum level that on-site samples must exceed. This is in contrast to other criteria which represent "not to exceed" concentrations. DO criteria are not applicable if groundwater Carbonaceous Biochemical Oxygen Demand (CBOD) is less than 10,000 ug/L and groundwater ammonia concentration is less than 2,000 ug/L.

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TABLE H-2
BACKGROUND GROUNDWATER ANALYTICAL RESULTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Date	Well ID	Total Dissolved Solids (mg/L)	Nitrogen, as Ammonia (mg/L)	Estimated Un-ionized Ammonia (mg/L)
6/3/2008	MW-139WT	950	0.3	0.022
6/3/2008	MW-138WT	810	0.2	0.014
6/3/2008	MW-101WT	860	0.2	0.014
6/3/2008	MW-129WT	1000	0.5	0.036
5/29/2008	MW-125WT	480	0.2	0.014
5/29/2008	TWW-1	1600	0.2	0.014
5/29/2008	X-17R	2200	0.07 J	0.005
5/29/2008	X-18	4100 [4500]	0.1 J [0.01 J]	0.007 [0.007]
5/29/2008	X-19AR	890	0.2	0.014

Notes:
Samples were collected by ARCADIS, and submitted Test America Laboratories in North Canton, Ohio for analysis.
Duplicate results are presented in brackets.
The estimated unionized ammonia (NH_3) concentrations calculated for the monitoring wells located adjacent to the Saginaw River are based on the MDEQ default value of 7.2% of total ammonia nitrogen for warm water surface water.
J = The compound/constituent was positively identified; however, the associated numerical value is an estimated concentration only.

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ARCADIS

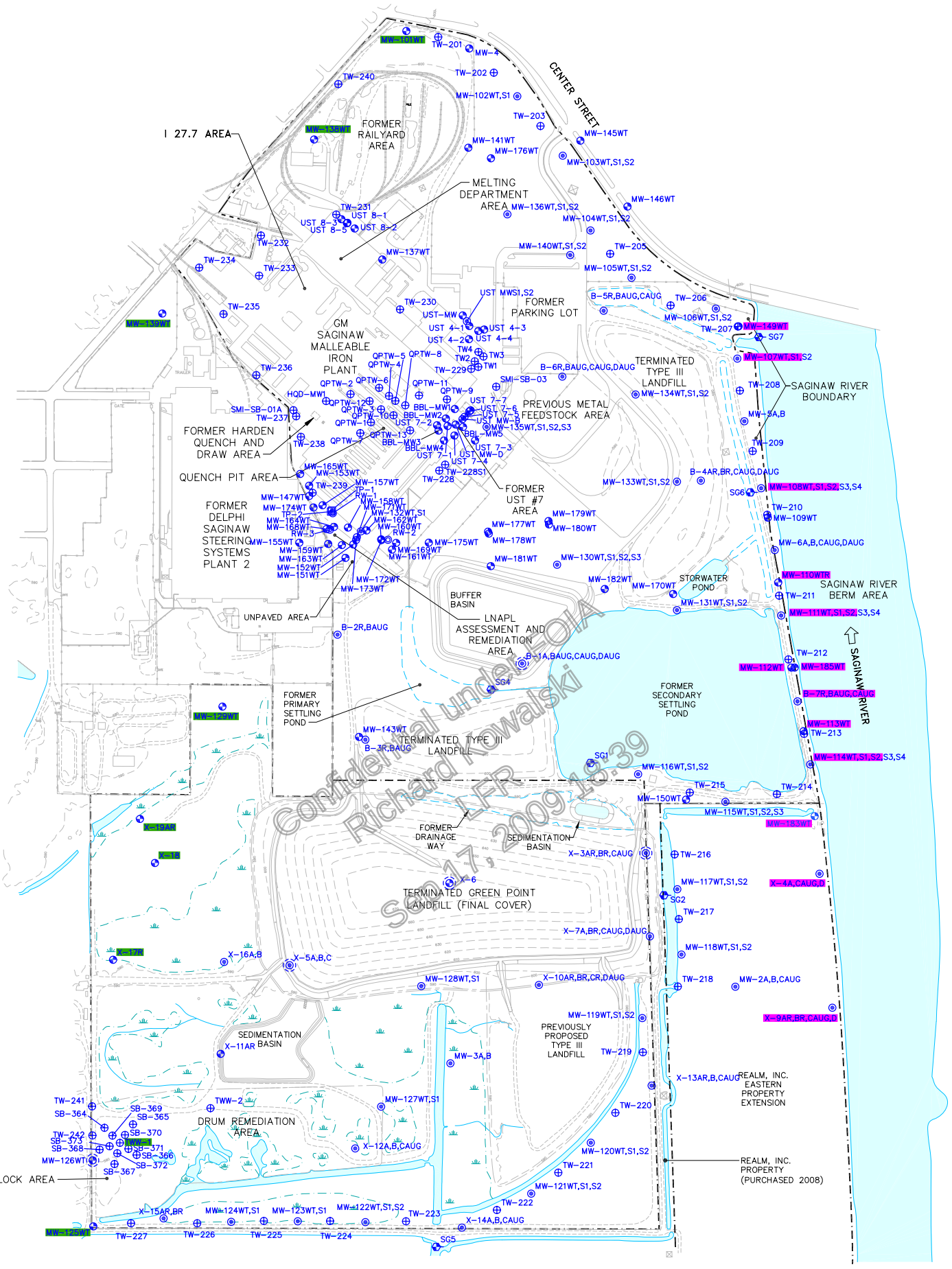
FIGURES

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CITY: SYRACUSE DIV/GROUP: 141 DB: GMS LD: GMS PM: J. ROBERTSON LYR:ON=*;OFF=*REF
G:\CAD\ACT\B0027608\0000\00110\DWG\RAP\27608B10.DWG LAYOUT: H-1 SAVED: 7/10/2008 3:53 PM ACADVER: 17.0S (LMS TECH) PAGESETUP: -- PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 7/10/2008 3:53 PM BY: POSENAUER, LISA
XREFS: IMAGES: PROJECTNAME: --
27608X01



NOTES:

1. THIS PHOTOGRAMMETRIC BASE MAP FOR THE GM SAGINAW MALLEABLE IRON PLANT AND DELPHI SAGINAW STEERING SYSTEMS PLANT 2 PROPERTIES WAS PREPARED BY LOCKWOOD MAPPING, INC. OF ROCHESTER, NEW YORK. AERIAL PHOTOGRAPHY WAS CONDUCTED ON 11/11/94. ORIGINAL LOCKWOOD MAP WAS AT A SCALE OF 1"=100' AND WAS INTERPRETED FOR TWO-FOOT CONTOURS.
2. BASE MAP HAS BEEN MODIFIED TO INCORPORATE BUFFER BASIN, SEDIMENTATION BASINS, WETLANDS MITIGATION AREA, AND GREEN POINT LANDFILL (GPL) FINAL COVER FROM THE FINAL ENGINEERING DESIGN REPORT PREPARED BY BBL FOR THE GPL, DATED JANUARY 1998.
3. VERTICAL DATUM REFERENCED TO NGVD OF 1929, HORIZONTAL DATUM REFERENCED TO MICHIGAN SPC-NAD 1983.
4. PROPERTY BOUNDARY FOR REALM, INC, DIGITIZED FROM SPICER GROUP DRAWING NO. A-21854-1, DATED 3/27/98.
5. BASE MAP INFORMATION SOUTH OF MAIN REALM, INC. PROPERTY LINE FROM AIR-LAND SURVEYS, INC. PHOTO DATE 11/90, MAPPING DATE 10/91.

LEGEND:

- GM SAGINAW MALLEABLE IRON PLANT PROPERTY LINE (APPROX.)
- REALM, INC. PROPERTY LINE (APPROX.)
- UNPAVED ROAD
- GROUND SURFACE ELEVATION CONTOUR (10 FT INTERVAL)
- FENCE LINE
- SWAMPY AREA
- MW-125WT — MONITORING WELL
- MW-2A,B,CAUG — MONITORING WELL CLUSTER
- TW-226 — TEMPORARY MONITORING WELL
- SG5 — STAFF GAUGE
- TP-1 — PIEZOMETER
- RW-1 — RECOVERY WELL
- X-6 — ABANDONED MONITORING WELL
- X-5A,B,C — ABANDONED MONITORING WELL CLUSTER
- BACKGROUND MONITORING LOCATION
- RIVER PERIMETER MONITORING LOCATION

0 300' 600'
GRAPHIC SCALE

SAGINAW MALLEABLE IRON PLANT PROPERTY,
GREEN POINT LANDFILL, AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

BACKGROUND AND RIVER PERIMETER GROUNDWATER MONITORING LOCATIONS

ARCADIS

FIGURE
H-1

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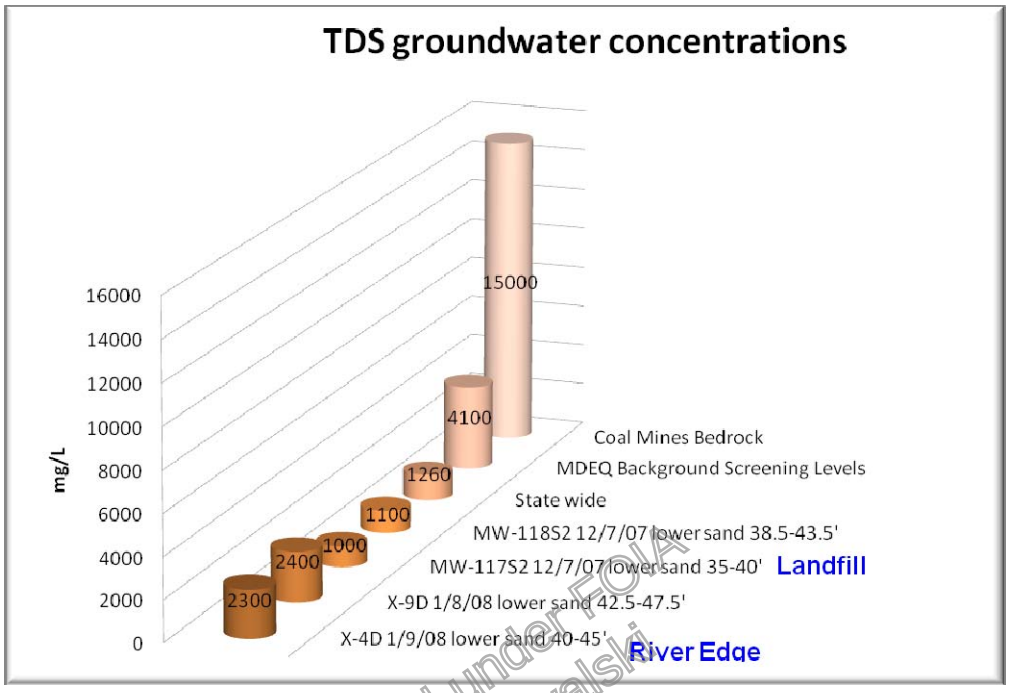


Figure H-2

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Appendix I

Mixing Zone Application

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Appendix I

Supporting Information for Request to MDEQ for Mixing-Zone-Based GSI Criteria

General Motors Corporation Saginaw Malleable Iron Plant Property, and REALM, Inc. Green Point Landfill and Drum Remediation Area Saginaw, Michigan

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1 In-Situ Hydraulic Conductivity Testing Results
2 Request to MDEQ for Mixing Zone-based GSI Criteria

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1. Introduction

This document provides information to allow review of the request of MDEQ mixing zone based GSI criteria for the GM Saginaw Malleable Iron Plant Property (SMI) and the Green Point Landfill (collectively referred to as the site; Figure 1) located in Saginaw Michigan. The groundwater discharge rate along the eastern boundary of SMI and the Green Point Landfill to the Saginaw River is estimated to support the Mixing Zone Request for the following parameters: un-ionized ammonia (estimated based on ammonia concentrations) arsenic (total), selenium (total), and thallium (total). The groundwater discharge rate was calculated using hydraulic conductivities, hydraulic gradients, areas of flow zone identified during the Remedial Investigation (RI). The RI results, including monitoring well construction longs and soil boring logs, are included in the Remedial Investigation Report (Blasland, Bouck & Lee, Inc. [BBL], 2001).

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2. Groundwater Quality

Ammonia, arsenic, selenium and thallium were detected at concentrations that exceeded Part 201 of Michigan's Natural Resources and Environmental Protection Act (NREPA), 1994 Public Act 451 (Part 201) generic groundwater surface-water interface (GSI) criteria in monitoring wells located in the fill units, upper silty clay unit and upper sand unit along the Saginaw River. The minimum and maximum concentrations were established using the maximum detected concentration for each constituent within the mixing zone.

	Un-ionized Ammonia (mg/L)	Total Arsenic (mg/L)	Total Selenium (mg/L)	Total Thallium (mg/L)
Minimum Concentration	0.006	0.002	0.008	0.004
Maximum Concentration	0.425	0.223	0.008	0.008

The area of each mixing zone and the monitoring wells included in the mixing zone are shown on Figure 2. The horizontal extent of the mixing zone for each constituent has been conservatively extended to the nearest monitoring well with concentrations below GSI criteria. At the southern end of the ammonia mixing zone was extended to the outer edge of the projected flow for the Green Point Landfill. The analytical data for each monitoring well within the mixing zone is provided on Figure 2 and in Table 1.

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3. Physical Setting

The site is located approximately 2,000 feet north of the confluence of the Tittabawassee, Shiawassee and Saginaw Rivers, and is located on the western half of Section 35, T12N, R4E, in the city of Saginaw, Saginaw County, Michigan. The site is bounded to the west by the Delphi Automotive Systems Corporation (Delphi) Saginaw Steering Systems Plant 2 (Plant 2) and a junkyard; to the east by the Saginaw River and property previously used for agricultural purposes (previously owned by Ruben Schultz and the State of Michigan, now owned by REALM, Inc.); to the north by commercial, residential and industrial properties; and to the south by agricultural property (Figure 1).

The site topography is generally flat, with the exception of several closed Type III Landfills and the Green Point Landfill, which are mounded above the surrounding land. The components of a former water recirculation system (WRS), including settling ponds and associated channels, also result in minor topographic variability in the northern part of the site. Wetlands are present in the southwest portion of the sit, and a series of ditches provide for drainage throughout the southern portion of the site.

3.1 Regional Geology

The site is located within the Central Lowland geomorphic province and overlies bedrock units of the Michigan basin, which is a roughly circular synclinal structure in which the youngest formations subcrop at the center of the basin, and progressively older formations subcrop outward in concentric rings. The site lies over bedrock units in the central part of the basin, the shallowest of which consist of Pennsylvanian-age bedrock of the Grand River and Saginaw Formations. The Grand River Formation consists primarily of sandstones, which are unconformably overlain by the Saginaw Formation, consisting of interbedded sandstone, shale and limestone, with frequent coal seams.

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Overburden deposits consist of layers of clay to sand-size sediments that were deposited by fluvial and glaciofluvial processes. The overburden varies on a regional scale across the Saginaw area as a result of variations in the depth to bedrock and the proximity to former and existing depositional controls, including rivers and glacial outwash channels.

3.1.1 Site Geology

Geologic cross-sections are provided on Figures 4, 5 and 6, and the location of the cross-sections is shown on Figure 3. The overburden deposits at the site are summarized below.

- **Fill Unit.** The fill unit consists primarily of foundry sand (fine to medium sand), trace slag, glass and gravel. The thickness of the fill unit along the Saginaw River ranges from 4 to 9 feet thick, with a mean thickness of 6.6 feet. The fill unit thins to the south.

- **Upper Silty Clay Unit.** The upper silty clay unit consists of glaciolacustrine silts and clay. The thickness of the silty clay unit along the Saginaw River ranges from 1 to 10 feet thick, with a mean thickness of 5.5 feet. The silty clay unit thins to the south.

- **Upper Sand Unit.** The upper sand unit consists of fine sand with little silt and trace shell fragments; the unit locally grades coarser with depth. The sand unit pinches out beneath the plant building and also

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toward the western and northern site boundaries. In addition, the sand unit is separated into upper and lower units by the glaciolacustrine silt and clay layer in the vicinity of the Saginaw River. The thickness of the sand unit along the Saginaw River ranges from 14 to 22 feet thick, with a mean thickness of 18 feet.

The following saturated geologic units below the upper sand unit do not significantly discharge to the Saginaw River; however, they are included as a reference.

- **Middle Silty Clay Unit.** The middle silty clay unit is a lower confining boundary to groundwater flow in the overburden.

- **Lower Sand Unit.** The silty clay unit previously believed to be the underlying confining layer of the overburden at a depth of approximately 25 to 30 feet in the vicinity of the Saginaw River was observed to be less than 10 feet thick, and underlain by additional sand deposits.

  As illustrated most clearly by cross section C-C' (Figure 6), the two sand units observed adjacent to the Saginaw River appear to connect and form the single sand unit observed beneath the majority of the site. Based on a review of potentiometric surface elevation data, the lower sand identified along the Saginaw River is hydraulically connected to the sand unit observed across the majority of the site.

- **Lower Silty Unit.** The lower silty clay unit was observed underlying the other overburden units across the entire site, and is believed to represent a lower confining boundary (aquitard) to both groundwater flow and contaminant transport.

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4. Hydrogeology

The thickness of the units addressed by this Mixing Zone Request ranges from 10.5 feet at MW-149WT to 19.5 feet at the X-9 well cluster as shown on Figure 4. The saturated area extends from the water table to the base of the upper sand unit along the Saginaw River.

4.1 Hydraulic Conductivity

The hydraulic conductivity values obtained from the in-situ hydraulic conductivity testing at 182 monitoring well locations were divided into groups based on the lithologic unit in which the well screen was placed. The five groups of screened units for the wells tested include: fill, silt, fill and silt unit, upper sand, upper clay, lower sand, and upper silty clay and lower silty clay. The data were used to measure responsiveness to changes in static water levels and provide estimates of the hydraulic conductivities of the hydrostratigraphic units (Hvorslev, 1951; Bouwer and Rice, 1976; and Bouwer, 1989). Table 3-2 of the RI Report (BBL, 2001) summarizes the testing data for each monitoring well, including: screened lithologic unit(s) and hydraulic conductivity values calculated for each well tested (Attachment 1).

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Lithologic Unit	Total Wells Tested Within Unit	Geometric Mean K		Minimum K Value		Maximum K Value	
		(ft/min)	(cm/sec)	(ft/min)	(cm/sec)	(ft/min)	(cm/sec)
Fill	56	3.03E-03	1.54E-03	3.79E-06	1.93E-06	1.63E-01	8.28E-02
Upper Silty Clay	42	2.08E-03	1.05E-03	3.33E-06	1.69E-06	8.03E-02	4.08E-02
Upper Sand	52	2.77E-03	1.41E-03	3.79E-06	1.93E-06	1.63E-01	8.28E-02
Lower Sand	74	7.61E-03	3.86E-03	7.86E-06	3.99E-06	1.26E-01	6.40E-02
Middle Silty Clay	7	2.10E-06	1.07E-06	3.29E-07	1.67E-07	6.31E-05	3.21E-05
Lower Silty Clay	4	5.56E-06	2.83E-06	4.67E-07	2.37E-07	1.10E-04	5.59E-05

Notes:
ft/min = Feet per minute.
cm/sec = Centimeters per second.

The data indicate that both the upper and lower clay layers transmit water at rates of approximately two to three orders of magnitude less permeable lower on average than the fill, upper and lower sand units on site. These data indicate that the silty clay units (both upper and lower silty clay units, where applicable) act as confining layers to downward groundwater flow on site.

Based on the similar K values of the fill unit, upper silty clay unit and upper sand unit, these units will be combined into one unit for the discharge calculations. A value of 2.9E-03 feet per minute (geometric mean of the K values for the fill, silt and upper sand units) will be used.

4.2 Horizontal Gradients and Groundwater Flow

The general direction of site wide groundwater flow at the water table is toward the southeast in the northern portion of the site and to the south-southeast in the southern part of the site, with localized variations as a result of mounding from the site landfills and surface-water bodies (Figure 7). Generally, groundwater flow is toward the Saginaw River.

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The horizontal gradient in the northern section of the site ranges from 0.03 feet per foot to 0.13 feet per foot, and is influenced by the site landfills and surface-water bodies. The horizontal gradient in the southern section of the site is 0.003 feet per foot.

For the ammonia mixing zones, the area was divided into three sections due to the variations in the gradient (Figure 7). For the northern section, a gradient of 0.07 feet per foot was used, for the central section, a gradient of 0.13 feet per foot was used and for the southern section, a gradient of 0.003 feet per foot was used to calculate volumetric flow rates. For the arsenic mixing zone, a gradient of 0.035 feet per foot was used in flow calculations, and in the thallium mixing zone 0.13 feet per foot was used in flow calculations. For the selenium mixing zone, a gradient of 0.003 feet per foot was used in flow calculations.

4.3 Cross-Sectional Areas of Discharge Zones

Cross-sectional areas of each of the mixing zone areas are as follows:

Mixing Zone Area	Un-ionized Ammonia	Total Arsenic	Selenium	Thallium
Cross-Sectional Area (ft squared)	69,882	3,185	14,855	26,425

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Cross-sectional areas were calculated for each mixing zone based on the top of the water table and base of the upper sand unit for each area (Figure 4).

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5. Estimate of Potential Discharge Rates Using Darcy's Law

The formula below was used to calculate the volumetric groundwater flow rate to the Saginaw River.

Darcy's Law describes the volumetric flow of water through a porous medium based on the hydraulic conductivity of the medium and the hydraulic gradient. Darcy's Law may be stated as (Freeze and Cherry, 1979):

$$Q = KIA$$

where:

- Q = Volumetric flow of water (cubic feet per day)
- K = Hydraulic conductivity of porous medium (feet per day)
- I = Hydraulic gradient (dimensionless)
- A = Cross sectional area perpendicular to flow (feet squared)

The table below presents a summary of the approximate groundwater flow rate for each mixing zone.

Mixing Zone Area	Cross-Sectional Area (ft^2)	Hydraulic Gradient (ft/ft)	K Value (ft/day)	Approximate Groundwater Flow Rate (gal/day)*
Un-ionized Ammonia (total of all sections)	69,882	--	4.18	113,310
Northern Section- [Un-ionized Ammonia]	26,280	0.07	4.18	54,727
Central Section – [Un-ionized Ammonia]	13,737	0.13	4.18	55,784
Southern Section [Un-ionized Ammonia]	29,864	0.003	4.18	2,799
Arsenic	3,185	0.035	4.18	3,482
Thallium	26,425	0.13	4.18	107,305
Selenium	16,200	0.003	4.18	1,392

Notes:
*Flow rate in gallons per day equals flow rate in cubic feet per day times 7.48.

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TABLES

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TABLE I-1
GROUNDWATER ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID: / Date Collected:	Units	GSI	IDW	B-7BAUG 07/17/95	B-7BAUG 06/11/96	B-7CAUG 07/17/95	B-7CAUG 06/11/96	B-7CAUG 05/20/00	B-7R 07/17/95	B-7R 06/13/96	B-7R 03/05/97	B-7R 06/29/99
Inorganics												
Arsenic	mg/L	0.15 {X}	0.01 {A}	NA	NA	NA	NA	NA	0.00940	0.0115 (IDW) [0.00830]	NA	NA
Selenium	mg/L	0.005 {B}	0.05 {B,A}	NA	NA	NA	NA	NA	ND(0.00500)	ND(0.00500) [ND(0.00500)]	NA	NA
Thallium	mg/L	0.0037 {B,I, X}	0.002 {B,A}	NA	NA	NA	NA	NA	ND(0.00200)	ND(0.00200 J) [ND(0.00200 J)]	NA	NA
Inorganics-Dissolved												
Arsenic (Dissolved)	mg/L	0.15 {X}	0.01 {A}	ND(0.001)	ND(0.005)	ND(0.001 J)	ND(0.005)	NA	0.0074	0.0057 [0.0053]	NA	0.0057
Selenium (Dissolved)	mg/L	0.005 {B}	0.05 {B,A}	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	NA	ND(0.005)	ND(0.005) [ND(0.005)]	NA	ND(0.002)
Thallium (Dissolved)	mg/L	0.0037 {B,I, X}	0.002 {B,A}	ND(0.002)	ND(0.004 J)	ND(0.002 J)	ND(0.004 J)	NA	ND(0.002)	ND(0.002 J) [ND(0.002 J)]	NA	ND(0.001)
General Chemistry												
Ammonia Nitrogen	mg/L	- -	10 {N}	NA	NA	NA	NA	NA	NA	NA	NA	2.4
Estimated Unionized Ammonia	mg/L	0.053 {CC}	- -	NA	NA	NA	NA	NA	NA	NA	NA	0.1728(GSI)

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TABLE I-1
GROUNDWATER ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID: / Date Collected:	Units	GSI	IDW	B-7R 09/02/99	B-7R 05/20/00	B-7R 04/05/01	B-7R 06/02/04	B-7R 08/23/05	B-7R 11/28/07	B-7R 06/03/08	MW-5A 07/13/95	MW-5A 06/08/96	MW-5A 03/10/97
Inorganics													
Arsenic	mg/L	0.15 {X}	0.01 {A}	NA	NA	NA	NA	NA	NA	NA	ND(0.00300 J)	ND(0.00500)	NA
Selenium	mg/L	0.005 {B}	0.05 {B,A}	NA	NA	NA	NA	NA	NA	NA	ND(0.00500)	ND(0.00500)	NA
Thallium	mg/L	0.0037 {B,I, X}	0.002 {B,A}	NA	NA	NA	NA	NA	NA	NA	ND(0.00200 J)	ND(0.00400 J)	NA
Inorganics-Dissolved													
Arsenic (Dissolved)	mg/L	0.15 {X}	0.01 {A}	0.0048	NA	NA	NA	NA	NA	NA	ND(0.001)	ND(0.005)	NA
Selenium (Dissolved)	mg/L	0.005 {B}	0.05 {B,A}	ND(0.002)	NA	NA	NA	NA	NA	NA	ND(0.005)	ND(0.005)	NA
Thallium (Dissolved)	mg/L	0.0037 {B,I, X}	0.002 {B,A}	ND(0.002)	NA	NA	NA	NA	NA	NA	ND(0.002 J)	ND(0.004 J)	NA
General Chemistry													
Ammonia Nitrogen	mg/L	- -	10 {N}	2.2	NA	NA	NA	NA	1.7	NA	NA	NA	NA
Estimated Unionized Ammonia	mg/L	0.053 {CC}	- -	0.1584(GSI)	NA	NA	NA	NA	0.1224(GSI)	NA	NA	NA	NA

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GROUNDWATER ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID: / Date Collected:	Units	GSI	IDW	MW-5B 07/13/95	MW-5B 06/08/96	MW-6A 07/13/95	MW-6A 06/09/96	MW-6A 03/10/97	MW-6B 07/13/95	MW-6B 06/09/96	MW-6B 05/20/00	MW-6CAUG 07/13/95	MW-6CAUG 06/09/96
Inorganics													
Arsenic	mg/L	0.15 {X}	0.01 {A}	NA	NA	0.00570	ND(0.00500)	NA	NA	NA	ND(0.0100)	NA	NA
Selenium	mg/L	0.005 {B}	0.05 {B,A}	NA	NA	ND(0.00500)	ND(0.00500)	NA	NA	NA	ND(0.00500)	NA	NA
Thallium	mg/L	0.0037 {B,I, X}	0.002 {B,A}	NA	NA	ND(0.00200)	ND(0.00800 J)	NA	NA	NA	0.00610 B (IDW)	NA	NA
Inorganics-Dissolved													
Arsenic (Dissolved)	mg/L	0.15 {X}	0.01 {A}	ND(0.001 J)	ND(0.005)	0.0045	ND(0.005)	NA	ND(0.001 J)	ND(0.005)	ND(0.01)	ND(0.001 J)	ND(0.005)
Selenium (Dissolved)	mg/L	0.005 {B}	0.05 {B,A}	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	NA	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Thallium (Dissolved)	mg/L	0.0037 {B,I, X}	0.002 {B,A}	ND(0.002 J)	ND(0.01 J)	ND(0.002)	ND(0.008 J)	NA	ND(0.002)	ND(0.008 J)	ND(0.01)	ND(0.002 J)	ND(0.016 J)
General Chemistry													
Ammonia Nitrogen	mg/L	- -	10 {N}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimated Unionized Ammonia	mg/L	0.053 {CC}	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE I-1
GROUNDWATER ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID: / Date Collected:	Units	GSI	IDW	MW-6DAUG 07/13/95	MW-6DAUG 06/09/96	MW-107S1 07/12/95	MW-107S1 06/07/96	MW-107S1 06/06/08	MW-107S2 07/12/95	MW-107S2 06/07/96	MW-107WT 07/12/95	MW-107WT 06/07/96	MW-107WT 03/10/97
Inorganics													
Arsenic	mg/L	0.15 {X}	0.01 {A}	NA	NA	NA	NA	NA	NA	NA	0.00230	ND(0.00500)	NA
Selenium	mg/L	0.005 {B}	0.05 {B,A}	NA	NA	NA	NA	NA	NA	NA	ND(0.00500)	ND(0.00500)	NA
Thallium	mg/L	0.0037 {B,I, X}	0.002 {B,A}	NA	NA	NA	NA	NA	NA	NA	ND(0.00200 J)	ND(0.00200 J)	NA
Inorganics-Dissolved													
Arsenic (Dissolved)	mg/L	0.15 {X}	0.01 {A}	ND(0.001 J)	ND(0.005)	0.0011	ND(0.005)	NA	0.001	ND(0.005)	0.0016	ND(0.005)	NA
Selenium (Dissolved)	mg/L	0.005 {B}	0.05 {B,A}	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	NA	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	NA
Thallium (Dissolved)	mg/L	0.0037 {B,I, X}	0.002 {B,A}	ND(0.002 J)	ND(0.016 J)	ND(0.002 J)	ND(0.002 J)	NA	ND(0.002 J)	ND(0.004 J)	ND(0.002 J)	ND(0.004 J)	NA
General Chemistry													
Ammonia Nitrogen	mg/L	- -	10 {N}	NA	NA	NA	NA	1.2	NA	NA	NA	NA	NA
Estimated Unionized Ammonia	mg/L	0.053 {CC}	- -	NA	NA	NA	NA	0.096 (GSI)	NA	NA	NA	NA	NA

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SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID: / Date Collected:	Units	GSI	IDW	MW-107WT 04/03/08	MW-108S1 07/13/95	MW-108S1 06/08/96	MW-108S1 03/10/97	MW-108S1 06/29/99	MW-108S1 09/02/99	MW-108S1 05/23/00	MW-108S1 06/03/08	MW-108S2 07/13/95	MW-108S2 06/08/96
Inorganics													
Arsenic	mg/L	0.15 {X}	0.01 {A}	0.000950 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	mg/L	0.005 {B}	0.05 {B,A}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/L	0.0037 {B,I, X}	0.002 {B,A}	ND(0.00100)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved													
Arsenic (Dissolved)	mg/L	0.15 {X}	0.01 {A}	NA	0.0114 (IDW)	ND(0.005)	NA	0.007	0.0067	NA	NA	ND(0.001 J)	ND(0.005)
Selenium (Dissolved)	mg/L	0.005 {B}	0.05 {B,A}	NA	ND(0.005)	ND(0.005)	NA	ND(0.002)	ND(0.002)	NA	NA	ND(0.005)	ND(0.005)
Thallium (Dissolved)	mg/L	0.0037 {B,I, X}	0.002 {B,A}	NA	ND(0.002 J)	ND(0.002 J)	NA	ND(0.001)	ND(0.001)	NA	NA	ND(0.002 J)	ND(0.002 J)
General Chemistry													
Ammonia Nitrogen	mg/L	- -	10 {N}	0.3	NA	NA	NA	1	0.91	NA	NA	NA	NA
Estimated Unionized Ammonia	mg/L	0.053 {CC}	- -	0.0216	NA	NA	NA	0.072(GSI)	0.06552(GSI)	NA	NA	NA	NA

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GROUNDWATER ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID: / Date Collected:	Units	GSI	IDW	MW-108S2 06/06/08	MW-108S3 07/13/95	MW-108S3 06/08/96	MW-108S4 07/13/95	MW-108S4 06/08/96	MW-108S4 05/21/00	MW-108WT 07/13/95	MW-108WT 06/08/96	MW-108WT 03/10/97
Inorganics												
Arsenic	mg/L	0.15 {X}	0.01 {A}	NA	NA	NA	NA	NA	0.00340 B	0.00830 J	ND(0.00500)	NA
Selenium	mg/L	0.005 {B}	0.05 {B,A}	NA	NA	NA	NA	NA	ND(0.00500)	ND(0.00500)	ND(0.00500)	NA
Thallium	mg/L	0.0037 {B,I, X}	0.002 {B,A}	NA	NA	NA	NA	NA	0.00380 B(GSI,IDW)	ND(0.00200)	ND(0.00400 J)	NA
Inorganics-Dissolved												
Arsenic (Dissolved)	mg/L	0.15 {X}	0.01 {A}	NA	ND(0.001 J)	ND(0.005)	ND(0.001 J)	ND(0.005)	ND(0.01)	ND(0.001 J)	ND(0.005)	NA
Selenium (Dissolved)	mg/L	0.005 {B}	0.05 {B,A}	NA	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	NA
Thallium (Dissolved)	mg/L	0.0037 {B,I, X}	0.002 {B,A}	NA	ND(0.002 J)	ND(0.016 J)	ND(0.004 J)	ND(0.016 J)	ND(0.01)	ND(0.002)	ND(0.004 J)	NA
General Chemistry												
Ammonia Nitrogen	mg/L	- -	10 {N}	3.5	NA	NA	NA	NA	NA	NA	NA	NA
Estimated Unionized Ammonia	mg/L	0.053 {CC}	- -	0.25 (GSI)	NA	NA	NA	NA	NA	NA	NA	NA

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GROUNDWATER ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID: / Date Collected:	Units	GSI	IDW	MW-108WT 05/21/00	MW-108WT 06/02/04	MW-109WT 07/13/95	MW-109WT 06/12/96	MW-109WT 03/10/97	MW-109WT 05/21/00	MW-110WT 06/12/96	MW-110WT 03/06/97	MW-110WT 12/10/97
Inorganics												
Arsenic	mg/L	0.15 {X}	0.01 {A}	ND(0.0100)	NA	0.0156 J (IDW)	ND(0.00500)	NA	ND(0.0100)	0.00730	NA	NA
Selenium	mg/L	0.005 {B}	0.05 {B,A}	ND(0.00500)	NA	ND(0.00500)	ND(0.00500)	NA	ND(0.00500)	ND(0.00500)	NA	NA
Thallium	mg/L	0.0037 {B,I, X}	0.002 {B,A}	ND(0.0100)	ND(0.00100)	ND(0.00200 J)	ND(0.00200 J)	NA	ND(0.0100)	ND(0.00200 J)	NA	NA
Inorganics-Dissolved												
Arsenic (Dissolved)	mg/L	0.15 {X}	0.01 {A}	ND(0.01)	NA	0.0169 (IDW)	ND(0.005)	NA	ND(0.01)	0.0056	NA	ND(0.005)
Selenium (Dissolved)	mg/L	0.005 {B}	0.05 {B,A}	ND(0.005)	NA	ND(0.005)	ND(0.005)	NA	ND(0.005)	ND(0.005)	NA	0.0056(GSI)
Thallium (Dissolved)	mg/L	0.0037 {B,I, X}	0.002 {B,A}	0.0053 B(GSI,IDW)	NA	ND(0.002)	ND(0.002 J)	NA	ND(0.01)	ND(0.002 J)	NA	NA
General Chemistry												
Ammonia Nitrogen	mg/L	- -	10 {N}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimated Unionized Ammonia	mg/L	0.053 {CC}	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA

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GROUNDWATER ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID: / Date Collected:	Units	GSI	IDW	MW-110WT 05/22/00	MW-110WTR 06/02/04	MW-110WTR 08/24/05	MW-110WTR 04/02/08	MW-111S1 07/14/95	MW-111S1 06/12/96	MW-111S2 07/13/95	MW-111S2 06/10/96	MW-111S2 06/06/08
Inorganics												
Arsenic	mg/L	0.15 {X}	0.01 {A}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	mg/L	0.005 {B}	0.05 {B,A}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/L	0.0037 {B,I, X}	0.002 {B,A}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved												
Arsenic (Dissolved)	mg/L	0.15 {X}	0.01 {A}	NA	NA	NA	NA	0.0185 (IDW)	0.0065	ND(0.001 J) [0.001 J]	ND(0.005)	NA
Selenium (Dissolved)	mg/L	0.005 {B}	0.05 {B,A}	NA	NA	NA	NA	ND(0.005)	ND(0.005)	ND(0.005) [ND(0.005)]	ND(0.005)	NA
Thallium (Dissolved)	mg/L	0.0037 {B,I, X}	0.002 {B,A}	NA	NA	NA	NA	ND(0.002)	ND(0.002 J)	ND(0.002) [ND(0.002)]	ND(0.008 J)	NA
General Chemistry												
Ammonia Nitrogen	mg/L	- -	10 {N}	NA	NA	NA	0.09 J	NA	NA	NA	NA	1.4
Estimated Unionized Ammonia	mg/L	0.053 {CC}	- -	NA	NA	NA	0.00648 J	NA	NA	NA	NA	0.10 (GSI)

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID: / Date Collected:	Units	GSI	IDW	MW-111S3 07/13/95	MW-111S3 06/10/96	MW-111S3 06/29/99	MW-111S4 07/14/95	MW-111S4 06/10/96	MW-111S4 03/07/97	MW-111S4 07/02/99	MW-111S4 09/02/99	MW-111S4 05/23/00	MW-111WT 07/14/95
Inorganics													
Arsenic	mg/L	0.15 {X}	0.01 {A}	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0240 J (IDW)
Selenium	mg/L	0.005 {B}	0.05 {B,A}	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND(0.00500)
Thallium	mg/L	0.0037 {B,I, X}	0.002 {B,A}	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND(0.00200 J)
Inorganics-Dissolved													
Arsenic (Dissolved)	mg/L	0.15 {X}	0.01 {A}	ND(0.001 J)	ND(0.005)	NA	ND(0.001)	ND(0.005)	NA	ND(0.001)	ND(0.001)	NA	0.018 (IDW)
Selenium (Dissolved)	mg/L	0.005 {B}	0.05 {B,A}	ND(0.005)	ND(0.005)	NA	ND(0.005)	ND(0.005)	NA	0.003	ND(0.002)	NA	ND(0.005)
Thallium (Dissolved)	mg/L	0.0037 {B,I, X}	0.002 {B,A}	ND(0.002 J)	ND(0.016 J)	NA	ND(0.002 J)	ND(0.016 J)	NA	ND(0.001)	ND(0.001)	NA	ND(0.002)
General Chemistry													
Ammonia Nitrogen	mg/L	- -	10 {N}	NA	NA	NA	NA	NA	NA	9 D	8.6 D	NA	NA
Estimated Unionized Ammonia	mg/L	0.053 {CC}	- -	NA	NA	NA	NA	NA	NA	0.648 D(GSI)	0.6192 D(GSI)	NA	NA

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GROUNDWATER ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID: / Date Collected:	Units	GSI	IDW	MW-111WT 06/12/96	MW-111WT 03/07/97	MW-111WT 06/30/99	MW-111WT 09/02/99	MW-111WT 05/19/00	MW-111WT 04/05/01	MW-111WT 06/02/04	MW-111WT 08/26/05
Inorganics											
Arsenic	mg/L	0.15 {X}	0.01 {A}	0.0307 (IDW)	NA	NA	NA	0.0114 (IDW)	NA	NA	NA
Selenium	mg/L	0.005 {B}	0.05 {B,A}	ND(0.00500)	NA	NA	NA	ND(0.00500)	NA	NA	NA
Thallium	mg/L	0.0037 {B,I, X}	0.002 {B,A}	ND(0.00800 J)	NA	NA	NA	0.00790 B(GSI,IDW)	NA	NA	NA
Inorganics-Dissolved											
Arsenic (Dissolved)	mg/L	0.15 {X}	0.01 {A}	0.0111 (IDW)	NA	0.014 (IDW)	0.017 (IDW)	0.0098 B	NA	NA	NA
Selenium (Dissolved)	mg/L	0.005 {B}	0.05 {B,A}	ND(0.005)	NA	ND(0.002)	ND(0.002)	ND(0.005)	NA	NA	NA
Thallium (Dissolved)	mg/L	0.0037 {B,I, X}	0.002 {B,A}	ND(0.002 J)	NA	ND(0.001)	ND(0.001)	0.0076 B(GSI,IDW)	NA	NA	NA
General Chemistry											
Ammonia Nitrogen	mg/L	- -	10 {N}	NA	NA	2.7	3.1	NA	NA	NA	NA
Estimated Unionized Ammonia	mg/L	0.053 {CC}	- -	NA	NA	0.1944(GSI)	0.2232(GSI)	NA	NA	NA	NA

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GROUNDWATER ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID: / Date Collected:	Units	GSI	IDW	MW-111WT 04/02/08	MW-112WT 07/17/95	MW-112WT 06/12/96	MW-112WT 09/27/96	MW-112WT 03/05/97	MW-112WT 06/30/99	MW-112WT 09/02/99	MW-112WT 05/20/00
Inorganics											
Arsenic	mg/L	0.15 {X}	0.01 {A}	NA	0.00330	ND(0.00500)	NA	NA	NA	NA	ND(0.0100)
Selenium	mg/L	0.005 {B}	0.05 {B,A}	NA	ND(0.00500)	ND(0.00500)	NA	NA	NA	NA	ND(0.00500)
Thallium	mg/L	0.0037 {B,I, X}	0.002 {B,A}	NA	ND(0.00200)	ND(0.00200 J)	NA	NA	NA	NA	0.00400 B(GSI,IDW)
Inorganics-Dissolved											
Arsenic (Dissolved)	mg/L	0.15 {X}	0.01 {A}	NA	ND(0.001)	ND(0.005)	NA	NA	ND(0.001)	ND(0.001)	0.004 B
Selenium (Dissolved)	mg/L	0.005 {B}	0.05 {B,A}	NA	ND(0.005)	ND(0.005)	NA	NA	ND(0.002)	ND(0.002)	ND(0.005)
Thallium (Dissolved)	mg/L	0.0037 {B,I, X}	0.002 {B,A}	NA	ND(0.002)	ND(0.002 J)	NA	NA	ND(0.001)	ND(0.001)	0.0059 B(GSI,IDW)
General Chemistry											
Ammonia Nitrogen	mg/L	- -	10 {N}	0.5 [0.5]	NA	NA	NA	NA	1.2	0.97	NA
Estimated Unionized Ammonia	mg/L	0.053 {CC}	- -	0.036 [0.036]	NA	NA	NA	NA	0.0864(GSI)	0.06984(GSI)	NA

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID: / Date Collected:	Units	GSI	IDW	MW-112WT 04/05/01	MW-112WT 06/03/04	MW-112WT 08/25/05	MW-112WT 11/27/07	MW-113WT 07/17/95	MW-113WT 06/13/96	MW-113WT 03/06/97	MW-113WT 06/03/08	MW-114S1 07/17/95
Inorganics												
Arsenic	mg/L	0.15 {X}	0.01 {A}	NA	NA	NA	NA	0.0172 J (IDW)	0.00930 J	NA	NA	NA
Selenium	mg/L	0.005 {B}	0.05 {B,A}	NA	NA	NA	NA	ND(0.00500)	ND(0.00500)	NA	NA	NA
Thallium	mg/L	0.0037 {B,I, X}	0.002 {B,A}	NA	ND(0.00100)	ND(0.00100) [ND(0.00100)]	ND(0.00100)	ND(0.00200)	ND(0.00200 J)	NA	NA	NA
Inorganics-Dissolved												
Arsenic (Dissolved)	mg/L	0.15 {X}	0.01 {A}	NA	NA	NA	NA	0.011 (IDW)	0.0125 J (IDW)	NA	NA	ND(0.001)
Selenium (Dissolved)	mg/L	0.005 {B}	0.05 {B,A}	NA	NA	NA	NA	ND(0.005)	ND(0.005)	NA	NA	ND(0.005)
Thallium (Dissolved)	mg/L	0.0037 {B,I, X}	0.002 {B,A}	NA	NA	ND(0.001) [ND(0.001)]	NA	ND(0.002)	ND(0.002 J)	NA	NA	ND(0.002)
General Chemistry												
Ammonia Nitrogen	mg/L	- -	10 {N}	NA	NA	NA	0.6	NA	NA	NA	0.7	NA
Estimated Unionized Ammonia	mg/L	0.053 {CC}	- -	NA	NA	NA	0.0432	NA	NA	NA	0.05	NA

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID: / Date Collected:	Units	GSI	IDW	MW-114S1 06/07/96	MW-114S2 07/17/95	MW-114S2 06/07/96	MW-114S2 06/06/08	MW-114S3 07/17/95	MW-114S3 06/07/96	MW-114S4 07/17/95	MW-114S4 06/07/96	MW-114WT 06/08/96	MW-114WT 03/06/97
Inorganics													
Arsenic	mg/L	0.15 {X}	0.01 {A}	NA	NA	NA	NA	NA	NA	NA	NA	ND(0.00500)	NA
Selenium	mg/L	0.005 {B}	0.05 {B,A}	NA	NA	NA	NA	NA	NA	NA	NA	ND(0.00500)	NA
Thallium	mg/L	0.0037 {B,I, X}	0.002 {B,A}	NA	NA	NA	NA	NA	NA	NA	NA	ND(0.00400 J)	NA
Inorganics-Dissolved													
Arsenic (Dissolved)	mg/L	0.15 {X}	0.01 {A}	ND(0.005)	ND(0.001)	ND(0.005)	NA	ND(0.001)	ND(0.005)	ND(0.001 J)	ND(0.005)	ND(0.005)	NA
Selenium (Dissolved)	mg/L	0.005 {B}	0.05 {B,A}	ND(0.005)	ND(0.005)	ND(0.005)	NA	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	NA
Thallium (Dissolved)	mg/L	0.0037 {B,I, X}	0.002 {B,A}	ND(0.002 J)	ND(0.002)	ND(0.002 J)	NA	ND(0.002 J)	ND(0.004 J)	ND(0.002)	ND(0.004 J)	ND(0.01 J)	NA
General Chemistry													
Ammonia Nitrogen	mg/L	- -	10 {N}	NA	NA	NA	2.5	NA	NA	NA	NA	NA	NA
Estimated Unionized Ammonia	mg/L	0.053 {CC}	- -	NA	NA	NA	0.18 (GSI)	NA	NA	NA	NA	NA	NA

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GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID: / Date Collected:	Units	GSI	IDW	MW-114WT 12/11/97	MW-114WT 05/22/00	MW-114WT 04/05/01	MW-114WT 06/03/04	MW-114WT 08/24/05	MW-149WT 06/12/96	MW-149WT 03/10/97	MW-149WT 05/21/00
Inorganics											
Arsenic	mg/L	0.15 {X}	0.01 {A}	NA	ND(0.0100)	NA	NA	NA	NA	NA	0.0107 (IDW)
Selenium	mg/L	0.005 {B}	0.05 {B,A}	NA	ND(0.00500)	NA	NA	NA	NA	NA	ND(0.00500)
Thallium	mg/L	0.0037 {B,I, X}	0.002 {B,A}	NA	0.00530 B(GSI,IDW)	NA	NA	NA	NA	NA	0.00670 B(GSI,IDW)
Inorganics-Dissolved											
Arsenic (Dissolved)	mg/L	0.15 {X}	0.01 {A}	0.019 (IDW)	ND(0.01)	NA	NA	NA	0.23(GSI,IDW)	NA	0.006 B
Selenium (Dissolved)	mg/L	0.005 {B}	0.05 {B,A}	ND(0.005)	ND(0.005)	NA	NA	NA	ND(0.005)	NA	ND(0.005)
Thallium (Dissolved)	mg/L	0.0037 {B,I, X}	0.002 {B,A}	NA	ND(0.01)	NA	NA	NA	ND(0.002 J)	NA	0.0064 B(GSI,IDW)
General Chemistry											
Ammonia Nitrogen	mg/L	- -	10 {N}	NA	NA	NA	NA	NA	NA	NA	NA
Estimated Unionized Ammonia	mg/L	0.053 {CC}	- -	NA	NA	NA	NA	NA	NA	NA	NA

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SAGINAW, MICHIGAN

Location ID: / Date Collected:	Units	GSI	IDW	MW-149WT 06/02/04	MW-149WT 04/03/08	MW-183WT 08/17/00	MW-183WT 01/09/08	MW-183WT 03/12/08	MW-185WT 06/03/04
Inorganics									
Arsenic	mg/L	0.15 {X}	0.01 {A}	0.223(GSI,IDW) [0.227(GSI,IDW)]	0.0936 (IDW) [0.0923 (IDW)]	NA	ND(0.00500) [ND(0.00500)]	ND(0.00500)	NA
Selenium	mg/L	0.005 {B}	0.05 {B,A}	NA	NA	NA	ND(0.00500) [ND(0.00500)]	ND(0.00500)	NA
Thallium	mg/L	0.0037 {B,I, X}	0.002 {B,A}	ND(0.00100) [ND(0.00100)]	0.000180 J [ND(0.00100)]	NA	ND(0.00100) [ND(0.00100)]	ND(0.00100)	NA
Inorganics-Dissolved									
Arsenic (Dissolved)	mg/L	0.15 {X}	0.01 {A}	NA	NA	NA	ND(0.005) [ND(0.005)]	0.0033 J	NA
Selenium (Dissolved)	mg/L	0.005 {B}	0.05 {B,A}	NA	NA	NA	ND(0.005) [ND(0.005)]	ND(0.005)	NA
Thallium (Dissolved)	mg/L	0.0037 {B,I, X}	0.002 {B,A}	NA	NA	NA	ND(0.001) [ND(0.001)]	ND(0.001)	NA
General Chemistry									
Ammonia Nitrogen	mg/L	- -	10 {N}	NA	0.8	NA	0.4 [0.3]	0.3	NA
Estimated Unionized Ammonia	mg/L	0.053 {CC}	- -	NA	0.0576(GSI)	NA	0.0288 [0.0216]	0.0216	NA

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TABLE I-1
GROUNDWATER ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID: / Date Collected:	Units	GSI	IDW	MW-185WT 08/25/05	MW-185WT 11/28/07	X-4A 12/14/06	X-4AR 07/24/95	X-4AR 06/09/96	X-4AR 03/05/97	X-4AR 05/21/00	X-4AR 06/03/04
Inorganics											
Arsenic	mg/L	0.15 {X}	0.01 {A}	NA	NA	ND(0.00500)	0.0127 (IDW)	ND(0.00500)	NA	ND(0.0100)	NA
Selenium	mg/L	0.005 {B}	0.05 {B,A}	NA	NA	ND(0.00500)	ND(0.00500)	ND(0.00500)	NA	ND(0.00500)	NA
Thallium	mg/L	0.0037 {B,I, X}	0.002 {B,A}	NA	NA	ND(0.00100)	ND(0.00200 J)	ND(0.00200 J)	NA	0.00730 B(GSI,IDW)	ND(0.00100)
Inorganics-Dissolved											
Arsenic (Dissolved)	mg/L	0.15 {X}	0.01 {A}	NA	NA	ND(0.005)	0.0012	ND(0.005)	NA	ND(0.01)	NA
Selenium (Dissolved)	mg/L	0.005 {B}	0.05 {B,A}	NA	NA	ND(0.005)	ND(0.005)	ND(0.005)	NA	ND(0.005)	NA
Thallium (Dissolved)	mg/L	0.0037 {B,I, X}	0.002 {B,A}	NA	NA	ND(0.001)	ND(0.002)	ND(0.002 J)	NA	0.0046 B(GSI,IDW)	NA
General Chemistry											
Ammonia Nitrogen	mg/L	- -	10 {N}	NA	ND(0.3) [ND(0.3)]	ND(0.2)	NA	NA	NA	NA	NA
Estimated Unionized Ammonia	mg/L	0.053 {CC}	- -	NA	ND(0.0216) [ND(0.0216)]	ND(0.0144)	NA	NA	NA	NA	NA

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TABLE I-1
GROUNDWATER ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID: / Date Collected:	Units	GSI	IDW	X-4CAUG 07/24/95	X-4CAUG 06/08/96	X-4CAUGR 01/09/08	X-4CAUGR 03/12/08	X-4D 01/09/08	X-4D 04/01/08	X-4D 04/02/08	X-4D 04/03/08
Inorganics											
Arsenic	mg/L	0.15 {X}	0.01 {A}	NA	NA	ND(0.00500)	ND(0.00500)	ND(0.00500)	NA	NA	ND(0.00500)
Selenium	mg/L	0.005 {B}	0.05 {B,A}	NA	NA	ND(0.00500)	ND(0.00500)	ND(0.00500)	NA	NA	ND(0.00500)
Thallium	mg/L	0.0037 {B,I, X}	0.002 {B,A}	NA	NA	ND(0.00100)	ND(0.00100)	ND(0.00100)	NA	NA	ND(0.00100)
Inorganics-Dissolved											
Arsenic (Dissolved)	mg/L	0.15 {X}	0.01 {A}	ND(0.001 J)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005) [ND(0.005)]	NA	NA
Selenium (Dissolved)	mg/L	0.005 {B}	0.05 {B,A}	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005) [ND(0.005)]	NA	NA
Thallium (Dissolved)	mg/L	0.0037 {B,I, X}	0.002 {B,A}	ND(0.002 J)	ND(0.004 J)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001) [ND(0.001)]	NA	NA
General Chemistry											
Ammonia Nitrogen	mg/L	- -	10 {N}	NA	NA	1.5	2	6.9	8.8 [8.1]	NA	NA
Estimated Unionized Ammonia	mg/L	0.053 {CC}	- -	NA	NA	0.108(GSI)	0.144(GSI)	0.4968(GSI)	0.6336(GSI) [0.5832(GSI)]	NA	NA

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GROUNDWATER ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID: / Date Collected:	Units	GSI	IDW	X-4D 06/05/08	X-9AR 07/24/95	X-9AR 06/09/96	X-9AR 03/05/97	X-9AR 12/15/06	X-9AR 01/10/08	X-9AR 03/11/08
Inorganics										
Arsenic	mg/L	0.15 {X}	0.01 {A}	NA	0.00160	ND(0.00500)	NA	ND(0.00500)	ND(0.00500)	ND(0.00500)
Selenium	mg/L	0.005 {B}	0.05 {B,A}	NA	ND(0.00500)	ND(0.00500)	NA	ND(0.00500)	ND(0.00500)	0.00820(GSI)
Thallium	mg/L	0.0037 {B,I, X}	0.002 {B,A}	NA	ND(0.00200 J)	ND(0.00200 J)	NA	ND(0.00100)	ND(0.00100)	ND(0.00100)
Inorganics-Dissolved										
Arsenic (Dissolved)	mg/L	0.15 {X}	0.01 {A}	NA	0.0021	ND(0.005)	NA	ND(0.005)	ND(0.005)	ND(0.005)
Selenium (Dissolved)	mg/L	0.005 {B}	0.05 {B,A}	NA	ND(0.005)	ND(0.005)	NA	ND(0.005)	ND(0.005)	0.0098(GSI)
Thallium (Dissolved)	mg/L	0.0037 {B,I, X}	0.002 {B,A}	NA	ND(0.002 J)	ND(0.004 J)	NA	ND(0.001)	ND(0.001)	ND(0.001)
General Chemistry										
Ammonia Nitrogen	mg/L	- -	10 {N}	6.2 [7.32]	NA	NA	NA	ND(0.2)	0.3	ND(0.2)
Estimated Unionized Ammonia	mg/L	0.053 {CC}	- -	0.43(GSI)[0.53 (GSI)]	NA	NA	NA	ND(0.0144)	0.0216	ND(0.0144)

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TABLE I-1
GROUNDWATER ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID: / Date Collected:	Units	GSI	IDW	X-9AR 06/05/08	X-9BR 07/24/95	X-9BR 06/08/96	X-9BR 12/15/06	X-9BR 01/08/08	X-9BR 03/11/08	X-9CAUG 07/24/95	X-9CAUG 06/08/96
Inorganics											
Arsenic	mg/L	0.15 {X}	0.01 {A}	NA	NA	NA	ND(0.00500) [ND(0.00500)]	ND(0.00500)	ND(0.00500)	NA	NA
Selenium	mg/L	0.005 {B}	0.05 {B,A}	ND(0.005) [ND(0.005)]	NA	NA	ND(0.00500) [ND(0.00500)]	ND(0.00500)	ND(0.00500)	NA	NA
Thallium	mg/L	0.0037 {B,I, X}	0.002 {B,A}	NA	NA	NA	ND(0.00100) [ND(0.00100)]	ND(0.00100)	ND(0.00100)	NA	NA
Inorganics-Dissolved											
Arsenic (Dissolved)	mg/L	0.15 {X}	0.01 {A}	NA	ND(0.001 J)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.001 J)	ND(0.005)
Selenium (Dissolved)	mg/L	0.005 {B}	0.05 {B,A}	NA	ND(0.005)	ND(0.005)	ND(0.0057)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Thallium (Dissolved)	mg/L	0.0037 {B,I, X}	0.002 {B,A}	NA	ND(0.002 J)	ND(0.004 J)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.002 J)
General Chemistry											
Ammonia Nitrogen	mg/L	- -	10 {N}	NA	NA	NA	5.9	5.2	5	NA	NA
Estimated Unionized Ammonia	mg/L	0.053 {CC}	- -	NA	NA	NA	0.4248(GSI)	0.3744(GSI)	0.36(GSI)	NA	NA

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GROUNDWATER ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Location ID: / Date Collected:	Units	GSI	IDW	X-9CAUG 12/15/06	X-9CAUG 01/08/08	X-9CAUG 03/11/08	X-9D 01/08/08	X-9D 03/11/08	X-9D 06/05/08
Inorganics									
Arsenic	mg/L	0.15 {X}	0.01 {A}	ND(0.00500)	ND(0.00500)	ND(0.00500)	ND(0.00500)	ND(0.00500)	NA
Selenium	mg/L	0.005 {B}	0.05 {B,A}	ND(0.00500)	ND(0.00500)	ND(0.00500)	ND(0.00500)	ND(0.00500)	NA
Thallium	mg/L	0.0037 {B,I, X}	0.002 {B,A}	ND(0.00100)	ND(0.00100)	ND(0.00100)	ND(0.00100)	ND(0.00100)	NA
Inorganics-Dissolved									
Arsenic (Dissolved)	mg/L	0.15 {X}	0.01 {A}	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	NA
Selenium (Dissolved)	mg/L	0.005 {B}	0.05 {B,A}	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	NA
Thallium (Dissolved)	mg/L	0.0037 {B,I, X}	0.002 {B,A}	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	NA
General Chemistry									
Ammonia Nitrogen	mg/L	- -	10 {N}	2.9	3.2	3.3	8.5	9.7	5.9
Estimated Unionized Ammonia	mg/L	0.053 {CC}	- -	0.2088(GSI)	0.2304(GSI)	0.2376(GSI)	0.612(GSI)	0.6984(GSI)	0.42 (GSI)

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TABLE 1
GROUNDWATER ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

General Notes:

Duplicate results are presented in brackets.
Groundwater concentrations are presented in milligram per liter (mg/L), except where noted.
The estimated unionized ammonia (NH_3) concentrations calculated for the monitoring wells located adjacent to the Saginaw River are based on the MDEQ default value of 7.2% of total ammonia nitrogen for warm water surface water.
Shaded and bolded cells represent constituent concentrations that exceed at least one of the listed Michigan Part 201 Criteria:
For Groundwater:
IDW = Industrial Drinking Water criteria, updated January 2006.
For Groundwater Adjacent to Saginaw River:
GSI = Groundwater/Surface Water Interface criteria, updated January 2006.

Data Qualifiers:

ND = Not detected. The value in parentheses represents the associated detection limit.
NA = Not analyzed for this constituent.
B = Inorganics: the detected analyte is and estimated value between the instrument detection limit and the reporting limit.
BJ = The detected analyte is an estimated concentration between the IDL and the RL.
J = The compound/constituent was positively identified, however, the associated numerical value is an estimated concentration only.

MDEQ Criteria Qualifiers:

NA = Criterion or value is *not available* or, as is the case for Csat, *not applicable*.

(A) Criterion is the state of Michigan drinking water standard established pursuant to Section 5 of 1976 pa 399, mcl 325.1005.
(B) Background, as defined in R 299.5701(b), may be substituted if higher than the calculated cleanup criterion.
(I) Hazardous substance may exhibit the characteristic of ignitability as defined in 40 C.F.R. §261.21 (revised as of July 1, 2001),
(X) The GSI criterion shown in the generic cleanup criteria tables is not protective for surface water that is used as a drinking water source. For a groundwater discharge to the Great Lakes and their connecting waters or discharge in close proximity to a water supply intake in inland surface waters, the generic GSI criterion shall be the surface water human drinking water value (HDV) listed in the table in this footnote, except for those HDV indicated with an asterisk. For HDV with an asterisk, the generic GSI criterion shall be the lowest of the HDV, the WV, and the calculated FCV. see formulas in footnote (G). Soil protection criteria based on the HDV shall be as listed in the table in this footnote, except for those values with an asterisk. Soil GSI protection criteria based on the HDV shall be as listed in the table in this footnote, except for those values with an asterisk. Soil GSI protection criteria for compounds with an asterisk shall be the greater of 20 times the GSI criterion or the GSI soil-water partition values using the GSI criteria developed with the procedure described in this footnote.

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TABLE 1
GROUNDWATER ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

MDEQ Criteria Qualifiers (Contd.):

Hazardous Substance	Chemical Abstract Service Number	Surface Water Human Drinking Water Values (HDV) (ug/L)	Soil GSI Protection Criteria (HDV) (ug/L)
Acrylonitrile	107131	2.0 (M); 0.87	100 (M); 17
Alachlor	15972608	3.5	91
Antimony	7440360	2	1,400
Arsenic	7440382	50	23,000
Atrazine	1912249	4.3	86
Barium	7440393	1,900*	*
Benzene	71432	12	240
bis(2-Chloroethyl)ether	111444	1 (M); 0.79	100 (M); 20
Bromate	15541454	10 (M); 0.5	200 (M); 10
Butyl benzyl phthalate	85687	6.9	13,000
Cadmium	7440439	2.5*	*
Carbon tetrachloride	56235	5.6	110
Chloride	16887006	50,000	1.00E+06
Chloroform	67663	77	1,500
Chromium (III)	16065831	120*	*
Cyanazine	21725462	2 (M); 0.93	200 (M); 40
3,3'-Dichlorobenzidine	91941	0.3 (M); 0.14	2,000 (M); 7.7
1,2-Dichloroethane	107062	6	120
1,1-Dichloroethylene	75354	24	480
1,2-Dichloropropane	78875	9.1	180
N,N-Dimethylacetamide	127195	700	14,000
1,4-Dioxane	123911	34	680
Ethylene dibromide	106934	0.05 (M); 0.006	20 (M); 1.0
Ethylene glycol	107211	56,000	1.10E+06
Heptachlor	76448	0.01 (M); 0.0017	NLL
beta-Hexachlorocyclohexane	319857	0.024	20 (M)
Hexachloroethane	67721	5.3	310
Isophorone	78591	310	6,200
Isopropyl alcohol	67630	28,000	5.60E+05
Lead	7439921	14*	*

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TABLE 1
GROUNDWATER ANALYTICAL DATA

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

MDEQ Criteria Qualifiers (Contd.):

Hazardous Substance	Chemical Abstract Service Number	Surface Water Human Drinking Water Values (HDV) (ug/L)	Soil GSI Protection Criteria (HDV) (ug/L)
Manganese	7439965	3600	72,000
Methyl-tert-butyl ether (MTBE)	1634044	100	2,000
Methylene chloride	75092	47	940
Mirex	2385855	0.02 (M); 1.6E-5	NLL
Molybdenum	7439987	120	2,400
Nitrobenzene	98953	4.7	330 (M); 94
Pentachlorophenol	87865	1.8*	*
1,2,4,5-Tetrachlorobenzene	95943	2.8	3,300
1,1,1,2-Tetrachloroethane	630206	19	380
1,1,2,2-Tetrachloroethane	79345	3.2	64
Tetrachloroethylene	127184	11	220
Tetrahydrofuran	109999	350	7,000
Thallium	7440280	2.0 (M); 1.2	2,300
1,1,2-Trichloroethane	79005	12	240
Trichloroethylene	79016	29	580

{AA} = Comparison to these criteria may take into account an evaluation of whether the hazardous substances are adsorbed to particulates rather than dissolved in water and whether filtered groundwater samples were used to evaluate groundwater.

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TABLE I-2
MIXING ZONE CALCULATIONS

GENERAL MOTORS CORPORATION
I PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Hydraulic Gradient Summary

For the un-ionized ammonia mixing zone mean gradient :

Northern Section (MW-149WT to MW-111WT)	0.07 ft/ft
Central Section (MW-111WT to MW-114WT)	0.130 ft/ft
Southern Section (MW-114WT to X-9)	0.003 ft/ft

For the arsenic mixing zone gradient = 0.035 ft/ft

For the thallium mixing zone mean gradient = 0.130 ft/ft

For the selenium mixing zone gradient = 0.003 ft/ft

Average K for all mixing zones = 2.90E-03 ft/min
4.18 ft/day

Saturated Area Summary

	Saturated Area
Un-ionized Ammonia (total)	69,882 ft^2
Northern Section	26,280 ft^3
Central Section	13,737 ft^4
Southern Section	29,864 ft^5
Arsenic	3,185 ft^2
Thallium	26,425 ft^2
Selenium	16,200 ft^2

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Groundwater Flow (Q) Calculations (gallons per day)

Q= K x A x dh/dhx

Mixing Zone Area	Q (cubic feet per second)	Q (cubic feet per day)	(gallons per day)
Un-ionized Ammonia (total)	**0.175**	**15,148**	**113,310**
Northern Section	**0.085**	**7,316**	**54,727**
Central Section	**0.086**	**7,458**	**55,784**
Southern Section	**0.004**	**374**	**2,799**
Arsenic	**0.005**	**466**	**3,482**
Thallium	**0.166**	**14,346**	**107,305**
Selenium	**0.002**	**203**	**1,518**

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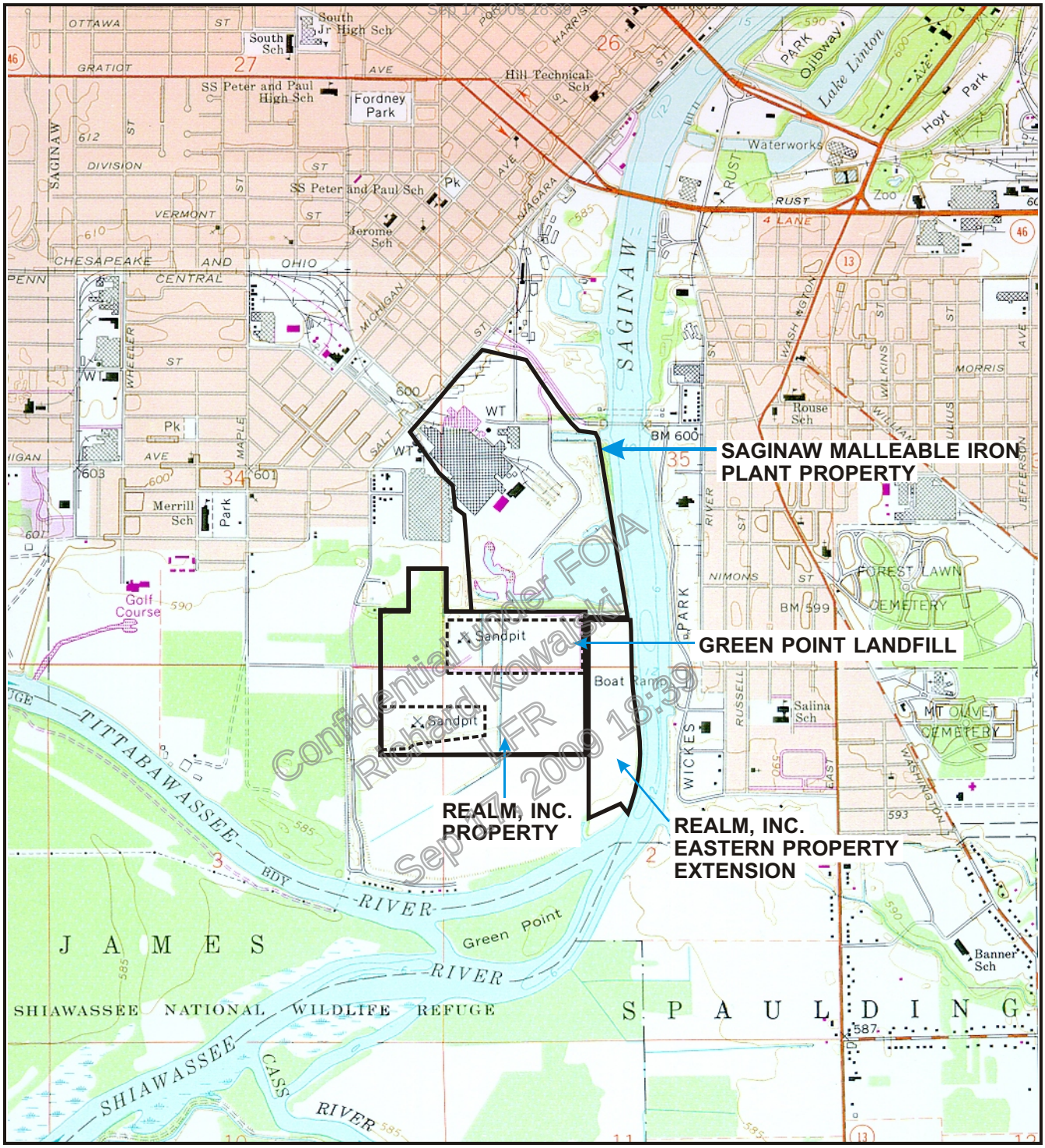
ARCADIS

FIGURES

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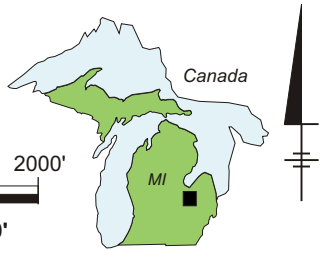


NOTES:

1. Base map source: USGS 7.5 Min. Topo. Quad., Saginaw, Mich. (1967, Photorevised 1973).
2. Locations of Green Point Landfill and Drum Remediation Area are approximate.
3. All property boundary lines are approximate.

2000' 0 2000'

Approximate Scale: 1" = 2000'



Area Location

REALM, INC.
GREEN POINT LANDFILL
SAGINAW, MICHIGAN

SITE LOCATION MAP

ARCADIS

FIGURE
I-1

07/29/08 SYR-141-DJH-KLS
B0027608/0000/00110/CDR/27608N01.CDR

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MW-108WT (2.5–7.5)	7/13/1995	6/8/1996	5/21/2000	6/2/2004
Inorganics				
Arsenic	0.0083 J	ND(0.005)	ND(0.01)	–
Selenium	ND(0.005)	ND(0.005)	ND(0.005)	–
Thallium	ND(0.002)	ND(0.004 J)	ND(0.01)	ND(0.001)
Inorganics–Dissolved				
Arsenic	ND(0.001 J)	ND(0.005)	ND(0.01)	–
Selenium	ND(0.005)	ND(0.005)	ND(0.005)	–
Thallium	ND(0.002)	ND(0.004 J)	0.0053 B (GSI,IDW)	–

MW-108S1 (8.8–13.8)	7/13/1995	6/8/1996	6/29/1999	9/2/1999
Inorganics–Dissolved				
Arsenic	0.0114 (IDW)	ND(0.005)	0.007	0.0067
Selenium	ND(0.005)	ND(0.005)	ND(0.002)	ND(0.002)
Thallium	ND(0.002 J)	ND(0.002 J)	ND(0.001)	ND(0.001)
Miscellaneous				
Ammonia Nitrogen	–	–	1	0.91
Estimated Unionized Ammonia	–	–	0.072 (GSI)	0.06552 (GSI)

MW-108S2 (22–27)	7/13/1995	6/8/1996	6/6/2008
Inorganics–Dissolved			
Arsenic	ND(0.001 J)	ND(0.005)	–
Selenium	ND(0.005)	ND(0.005)	–
Thallium	ND(0.002 J)	ND(0.002 J)	–
Miscellaneous			
Ammonia Nitrogen	–	–	3.5
Estimated Unionized Ammonia	–	–	0.252 (GSI)

MW-108S3 (39.8–44.8)	7/13/1995	6/8/1996
Inorganics–Dissolved		
Arsenic	ND(0.001 J)	ND(0.005)
Selenium	ND(0.005)	ND(0.005)
Thallium	ND(0.002 J)	ND(0.016 J)

MW-108S4 (45–50)	7/13/1995	6/8/1996	5/21/2000
Inorganics			
Arsenic	–	–	0.0034 B
Selenium	–	–	ND(0.005)
Thallium	–	–	0.0038 B (GSI,IDW)
Inorganics–Dissolved			
Arsenic	ND(0.001 J)	ND(0.005)	ND(0.01)
Selenium	ND(0.005)	ND(0.005)	ND(0.005)
Thallium	ND(0.004 J)	ND(0.016 J)	ND(0.01)

MW-109WT (3–8)	7/13/1995	6/12/1996	5/21/2000
Inorganics			
Arsenic	0.0156 J (IDW)	ND(0.005)	ND(0.01)
Selenium	ND(0.005)	ND(0.005)	ND(0.005)
Thallium	ND(0.002 J)	ND(0.002 J)	ND(0.01)
Inorganics–Dissolved			
Arsenic	0.0169 (IDW)	ND(0.005)	ND(0.01)
Selenium	ND(0.005)	ND(0.005)	ND(0.005)
Thallium	ND(0.002)	ND(0.002 J)	ND(0.01)

MW-6A (6–16)	7/13/1995	6/9/1996
Inorganics		
Arsenic	0.0057	ND(0.005)
Selenium	ND(0.005)	ND(0.005)
Thallium	ND(0.002)	ND(0.008 J)
Inorganics–Dissolved		
Arsenic	0.0045	ND(0.005)
Selenium	ND(0.005)	ND(0.005)
Thallium	ND(0.002)	ND(0.008 J)

MW-6B (27.5–32.5)	7/13/1995	6/9/1996	5/20/2000
Inorganics			
Arsenic	–	–	ND(0.01)
Selenium	–	–	ND(0.005)
Thallium	–	–	0.0061 B (IDW)
Inorganics–Dissolved			
Arsenic	ND(0.001 J)	ND(0.005)	ND(0.01)
Selenium	ND(0.005)	ND(0.005)	ND(0.005)
Thallium	ND(0.002)	ND(0.008 J)	ND(0.01)

MW-6CAUG (37.5–42.5)	7/13/1995	6/9/1996
Inorganics–Dissolved		
Arsenic	ND(0.001 J)	ND(0.005)
Selenium	ND(0.005)	ND(0.005)
Thallium	ND(0.002 J)	ND(0.016 J)

MW-6DAUG (47.8–52.8)	7/13/1995	6/9/1996
Inorganics–Dissolved		
Arsenic	ND(0.001 J)	ND(0.005)
Selenium	ND(0.005)	ND(0.005)
Thallium	ND(0.002 J)	ND(0.016 J)

MW-110WT	6/12/1996	12/10/1997
Inorganics		
Arsenic	0.0073	–
Selenium	ND(0.005)	–
Thallium	ND(0.002 J)	–
Inorganics–Dissolved		
Arsenic	0.0056	ND(0.005)
Selenium	ND(0.005)	0.0056 (GSI)
Thallium	ND(0.002 J)	–

MW-110WTR (10–15)	4/2/2008
Miscellaneous	
Ammonia Nitrogen	0.09 J
Estimated Unionized Ammonia	0.00648 J

MW-112WT (3.5–8.5)	7/17/1995	6/12/1996	6/30/1999	9/2/1999	5/20/2000	6/3/2004	8/25/2005	11/27/2007
Inorganics								
Arsenic	0.0033	ND(0.005)	–	–	ND(0.01)	–	–	–
Selenium	ND(0.005)	ND(0.005)	–	–	ND(0.005)	–	–	–
Thallium	ND(0.002)	ND(0.002 J)	–	–	0.004 B (GSI,IDW)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)
Inorganics–Dissolved								
Arsenic	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)	0.004 B	–	–	–
Selenium	ND(0.005)	ND(0.005)	ND(0.002)	ND(0.002)	ND(0.005)	–	–	–
Thallium	ND(0.002)	ND(0.002 J)	ND(0.001)	ND(0.001)	0.0059 B (GSI,IDW)	–	ND(0.001)/ND(0.001)	–
Miscellaneous								
Ammonia Nitrogen	–	–	1.2	0.97	–	–	–	0.6
Estimated Unionized Ammonia	–	–	0.0864 (GSI)	0.06984 (GSI)	–	–	–	0.0432

B–7R (5–15)	7/17/1995	6/13/1996	6/29/1999	9/2/1999	11/28/2007
Inorganics					
Arsenic	0.0094	0.0115 (IDW)/0.0083	–	–	–
Selenium	ND(0.005)	ND(0.005)/ND(0.005)	–	–	–
Thallium	ND(0.002)	ND(0.002 J)/ND(0.002 J)	–	–	–
Inorganics–Dissolved					
Arsenic	0.0074	0.0057/0.0053	0.0057	0.0048	–
Selenium	ND(0.005)	ND(0.005)/ND(0.005)	ND(0.002)	ND(0.002)	–
Thallium	ND(0.002)	ND(0.002 J)/ND(0.002 J)	ND(0.001)	ND(0.002)	–
Miscellaneous					
Ammonia Nitrogen	–	–	2.4	2.2	1.7
Estimated Unionized Ammonia	–	–	0.1728 (GSI)	0.1584 (GSI)	0.1224 (GSI)

B–7BAUG (37.5–42.5)	7/17/1995	6/11/1996
Inorganics–Dissolved		
Arsenic	ND(0.001)	ND(0.005)
Selenium	ND(0.005)	ND(0.005)
Thallium	ND(0.002)	ND(0.004 J)

B–7CAUG (44.3–49.3)	7/17/1995	6/11/1996
Inorganics–Dissolved		
Arsenic	ND(0.001 J)	ND(0.005)
Selenium	ND(0.005)	ND(0.005)
Thallium	ND(0.002 J)	ND(0.004 J)

MW-113WT (3.5–8.5)	7/17/1995	6/13/1996	6/3/2008
Inorganics			
Arsenic	0.0172 J (IDW)	0.0093 J	–
Selenium	ND(0.005)	ND(0.005)	–
Thallium	ND(0.002)	ND(0.002 J)	–
Inorganics–Dissolved			
Arsenic	0.011 (IDW)	0.0125 J (IDW)	–
Selenium	ND(0.005)	ND(0.005)	–
Thallium	ND(0.002)	ND(0.002 J)	–
Miscellaneous			
Ammonia Nitrogen	–	–	0.7
Estimated Unionized Ammonia	–	–	0.0504

MW-183WT (6–16)	1/9/2008	3/12/2008
Inorganics		
Arsenic	ND(0.005)/ND(0.005)	ND(0.005)
Selenium	ND(0.005)/ND(0.005)	ND(0.005)
Thallium	ND(0.001)/ND(0.001)	ND(0.001)
Inorganics–Dissolved		
Arsenic	ND(0.005)/ND(0.005)	0.0033 J
Selenium	ND(0.005)/ND(0.005)	ND(0.005)
Thallium	ND(0.001)/ND(0.001)	ND(0.001)
Miscellaneous		
Ammonia Nitrogen	0.4/0.3	0.3
Estimated Unionized Ammonia	0.0288/0.0216	0.0216

MW-5A (5–15)	7/13/1995	6/8/1996
Inorganics		
Arsenic	ND(0.003 J)	ND(0.005)
Selenium	ND(0.005)	ND(0.005)
Thallium	ND(0.002 J)	ND(0.004 J)
Inorganics–Dissolved		
Arsenic	ND(0.001)	ND(0.005)
Selenium	ND(0.005)	ND(0.005)
Thallium	ND(0.002 J)	ND(0.004 J)

MW-5B (25–30)	7/13/1995	6/8/1996
Inorganics–Dissolved		
Arsenic	ND(0.001 J)	ND(0.005)
Selenium	ND(0.005)	ND(0.005)
Thallium	ND(0.002 J)	ND(0.01 J)

MW-107WT (4–9)	7/12/1995	6/7/1996	4/3/2008
Inorganics			
Arsenic	0.0023	ND(0.005)	0.00095 J
Selenium	ND(0.005)	ND(0.005)	–
Thallium	ND(0.002 J)	ND(0.002 J)	ND(0.001)
Inorganics–Dissolved			
Arsenic	0.0016	ND(0.005)	–
Selenium	ND(0.005)	ND(0.005)	–
Thallium	ND(0.002 J)	ND(0.004 J)	–
Miscellaneous			
Ammonia Nitrogen	–	–	0.3
Estimated Unionized Ammonia	–	–	0.0216

MW-107S1 (12.5–17.5)	7/12/1995	6/7/1996	6/6/2008
Inorganics–Dissolved			
Arsenic	0.0011	ND(0.005)	–
Selenium	ND(0.005)	ND(0.005)	–
Thallium	ND(0.002 J)	ND(0.002 J)	–
Miscellaneous			
Ammonia Nitrogen	–	–	1.2
Estimated Unionized Ammonia	–	–	0.0864 (GSI)

MW-107S2 (21.4–26.4)	7/12/1995	6/7/1996
Inorganics–Dissolved		
Arsenic	0.001	ND(0.005)
Selenium	ND(0.005)	ND(0.005)
Thallium	ND(0.002 J)	ND(0.004 J)

MW-149WT (7–17)	6/12/1996	5/21/2000	6/2/2004	4/3/2008
Inorganics				
Arsenic	–	0.0107 (IDW)	0.223 (GSI,IDW)/0.227 (GSI,IDW)	0.0936 (IDW)/0.0923 (IDW)
Selenium	–	ND(0.005)	–	–
Thallium	–	0.0067 B (GSI,IDW)	ND(0.001)/ND(0.001)	0.00018 J/ND(0.001)
Inorganics–Dissolved				
Arsenic	0.23 (GSI,IDW)	0.006 B	–	–
Selenium	ND(0.005)	ND(0.005)	–	–
Thallium	ND(0.002 J)	0.0064 B (GSI,IDW)	–	–
Miscellaneous				
Ammonia Nitrogen	–	–	–	0.8
Estimated Unionized Ammonia	–	–	–	0.0576 (GSI)

MW-111WT (5.5–10.5)	7/14/1995	6/12/1996	6/30/1999	9/2/1999	5/19/2000	4/2/2008
Inorganics						
Arsenic	0.024 J (IDW)	0.0307 (IDW)	–	–	0.0114 (IDW)	–
Selenium	ND(0.005)	ND(0.005)	–	–	ND(0.005)	–
Thallium	ND(0.002 J)	ND(0.008 J)	–	–	0.0079 B (GSI,IDW)	–
Inorganics–Dissolved						
Arsenic	0.018 (IDW)	0.0111 (IDW)	0.014 (IDW)	0.017 (IDW)	0.0098 B	–
Selenium	ND(0.005)	ND(0.005)	ND(0.002)	ND(0.002)	ND(0.005)	–
Thallium	ND(0.002)	ND(0.002 J)	ND(0.001)	ND(0.001)	0.0076 B (GSI,IDW)	–
Miscellaneous						
Ammonia Nitrogen	–	–	2.7	3.1	–	0.5/0.5
Estimated Unionized Ammonia	–	–	0.1944 (GSI)	0.2232 (GSI)	–	0.036/0.036

MW-111S1 (12–17)	7/14/1995	6/12/1996
Inorganics–Dissolved		
Arsenic	0.0185 (IDW)	0.0065
Selenium	ND(0.005)	ND(0.005)
Thallium	ND(0.002)	ND(0.002 J)

MW-111S2 (25–30)	7/13/1995	6/10/1996	6/6/2008
Inorganics–Dissolved			
Arsenic	ND(0.001 J)/0.001 J	ND(0.005)	–
Selenium	ND(0.005)/ND(0.005)	ND(0.005)	–
Thallium	ND(0.002)/ND(0.002)	ND(0.008 J)	–
Miscellaneous			
Ammonia Nitrogen	–	–	1.4
Estimated Unionized Ammonia	–	–	0.1008 (GSI)

MW-111S3 (36–41)	7/13/1995	6/10/1996
Inorganics–Dissolved		
Arsenic	ND(0.001 J)	ND(0.005)
Selenium	ND(0.005)	ND(0.005)
Thallium	ND(0.002 J)	ND(0.016 J)

MW-111S4 (46–51)	7/14/1995	6/10/1996	7/2/1999	9/2/1999
Inorganics–Dissolved				
Arsenic	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)
Selenium	ND(0.005)	ND(0.005)	0.003	ND(0.002)
Thallium	ND(0.002 J)	ND(0.016 J)	ND(0.001)	ND(0.001)
Miscellaneous				
Ammonia Nitrogen	–	–	9 D	8.6 D
Estimated Unionized Ammonia	–	–	0.648 D (GSI)	0.6192 D (GSI)

MW-185WT (3–8)	11/28/2007
Miscellaneous	
Ammonia Nitrogen	ND(0.3)/ND(0.3)
Estimated Unionized Ammonia	ND(0.0216)/ND(0.0216)

MW-114WT (3.5–8.5)	6/8/1996	12/11/1997	5/22/2000
Inorganics			
Arsenic	ND(0.005)	–	ND(0.01)
Selenium	ND(0.005)	–	ND(0.005)
Thallium	ND(0.004 J)	–	0.0053 B (GSI,IDW)
Inorganics–Dissolved			
Arsenic	ND(0.005)	0.019 (IDW)	ND(0.01)
Selenium	ND(0.005)	ND(0.005)	ND(0.005)
Thallium	ND(0.01 J)	–	ND(0.01)

MW-114S1 (10.7–15.7)	7/17/1995	6/7/1996
Inorganics–Dissolved		
Arsenic	ND(0.001)	ND(0.005)
Selenium	ND(0.005)	ND(0.005)
Thallium	ND(0.002)	ND(0.002 J)

MW-114S2 (22.5–27.5)	7/17/1995	6/7/1996	6/6/2008
Inorganics–Dissolved			
Arsenic	ND(0.001)	ND(0.005)	–
Selenium	ND(0.005)	ND(0.005)	–
Thallium	ND(0.002)	ND(0.002 J)	–
Miscellaneous			
Ammonia Nitrogen	–	–	2.5
Estimated Unionized Ammonia	–	–	0.18 (GSI)

MW-114S3 (35.5–40.5)	7/17/1995	6/7/1996
Inorganics–Dissolved		
Arsenic	ND(0.001)	ND(0.005)
Selenium	ND(0.005)	ND(0.005)
Thallium	ND(0.002 J)	ND(0.004 J)

MW-114S4 (47.8–52.8)	7/17/1995	6/7/1996
Inorganics–Dissolved		
Arsenic	ND(0.001 J)	ND(0.005)
Selenium	ND(0.005)	ND(0.005)
Thallium	ND(0.002)	ND(0.004 J)

X–4D (40–45)	1/9/2008	4/1/2008	4/3/2008	6/5/2008
Inorganics				
Arsenic	ND(0.005)	–	ND(0.005)	–
Selenium	ND(0.005)	–	ND(0.005)	–
Thallium	ND(0.001)	–	ND(0.001)	–
Inorganics–Dissolved				
Arsenic	ND(0.005)	ND(0.005)/ND(0.005)	–	–
Selenium	ND(0.005)	ND(0.005)/ND(0.005)	–	–
Thallium	ND(0.001)	ND(0.001)/ND(0.001)	–	–
Miscellaneous				
Ammonia Nitrogen	6.9	8.8/8.1	–	6.2/7.32
Estimated Unionized Ammonia	0.4968 (GSI)	0.6336 (GSI)/0.5832 (GSI)	–	0.4464 (GSI)/0.52704 (GSI)

X–4CAUGR (14–19)	1/9/2008	3/12/2008
Inorganics		
Arsenic	ND(0.005)	ND(0.005)
Selenium	ND(0.005)	ND(0.005)
Thallium	ND(0.001)	ND(0.001)
Inorganics–Dissolved		
Arsenic	ND(0.005)	ND(0.005)
Selenium	ND(0.005)	ND(0.005)
Thallium	ND(0.001)	ND(0.001)
Miscellaneous		
Ammonia Nitrogen	1.5	2
Estimated Unionized Ammonia	0.108 (GSI)	0.144 (GSI)

X–4CAUG (18–23)	7/24/1995	6/8/1996
Inorganics–Dissolved		
Arsenic	ND(0.001 J)	ND(0.005)
Selenium	ND(0.005)	ND(0.005)
Thallium	ND(0.002 J)	ND(0.004 J)

X–4AR (3.3–8.3)	7/24/1995	6/9/1996	5/21/2000	6/3/2004
Inorganics				
Arsenic	0.0127 (IDW)	ND(0.005)	ND(0.01)	–
Selenium	ND(0.005)	ND(0.005)	ND(0.005)	–
Thallium	ND(0.002 J)	ND(0.002 J)	0.0073 B (GSI,IDW)	ND(0.001)
Inorganics–Dissolved				
Arsenic	0.0012	ND(0.005)	ND(0.01)	–
Selenium	ND(0.005)	ND(0.005)	ND(0.005)	–
Thallium	ND(0.002)	ND(0.002 J)	0.0046 B (GSI,IDW)	–

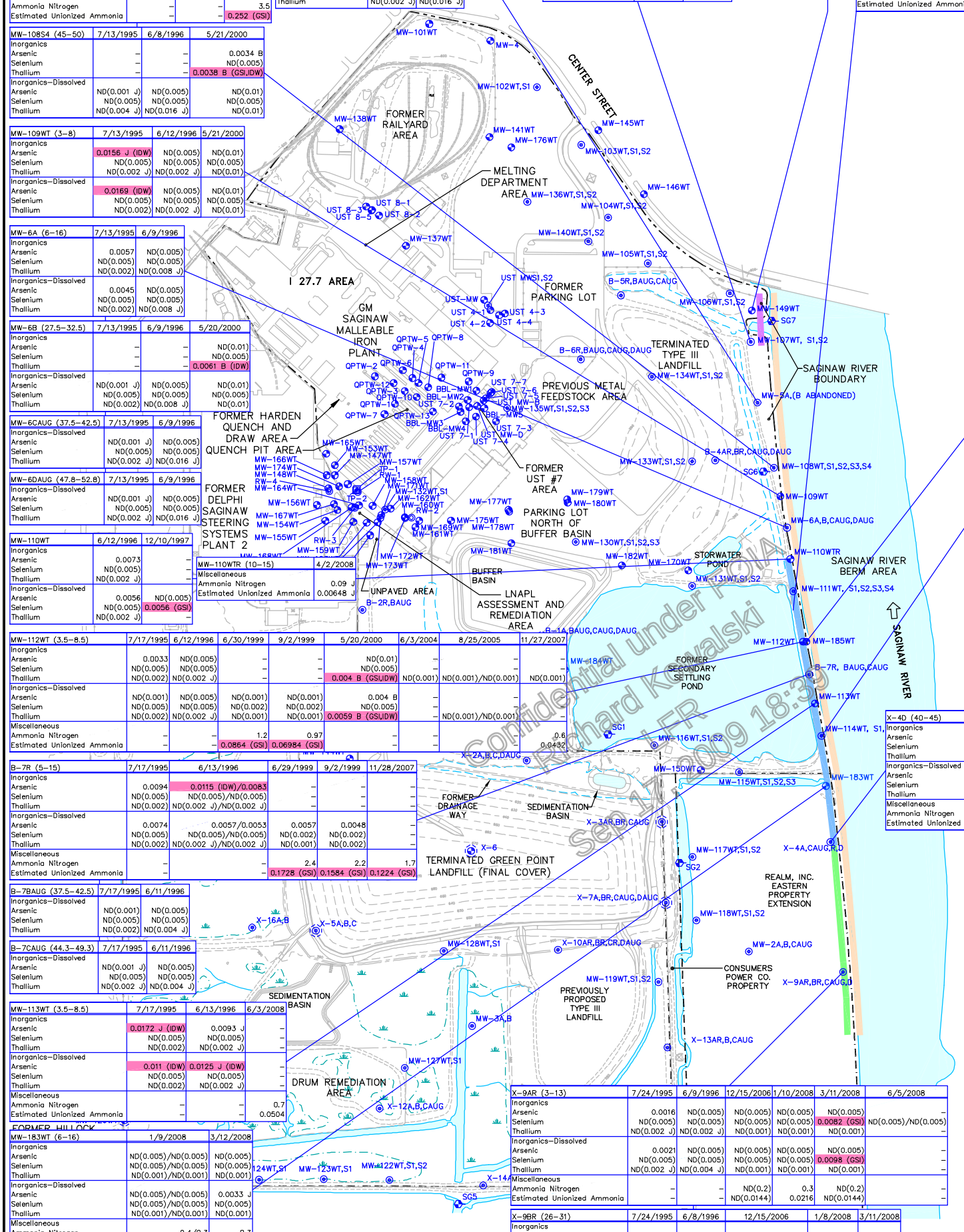
X–4A (6.2–9.2)	12/14/2006
Inorganics	
Arsenic	ND(0.005)
Selenium	ND(0.005)
Thallium	ND(0.001)
Inorganics–Dissolved	
Arsenic	ND(0.005)
Selenium	ND(0.005)
Thallium	ND(0.001)
Miscellaneous	
Ammonia Nitrogen	ND(0.2)
Estimated Unionized Ammonia	ND(0.0144)

X–9AR (3–13)	7/24/1995	6/9/1996	12/15/2006	1/10/2008	3/11/2008	6/5/2008
Inorganics						
Arsenic	0.0016	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	–
Selenium	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.0082 (GSI)	ND(0.005)/ND(0.005)
Thallium	ND(0.002 J)	ND(0.002 J)	ND(0.001)	ND(0.001)	ND(0.001)	–
Inorganics–Dissolved						
Arsenic	0.0021	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	–
Selenium	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.0098 (GSI)	–
Thallium	ND(0.002 J)	ND(0.004 J)	ND(0.001)	ND(0.001)	ND(0.001)	–
Miscellaneous						
Ammonia Nitrogen	–	–	ND(0.2)	0.3	ND(0.2)	–
Estimated Unionized Ammonia	–	–	ND(0.0144)	0.0216	ND(0.0144)	–

X–9BR (26–31)	7/24/1995	6/8/1996	12/15/2006	1/8/2008	3/11/2008
Inorganics					
Arsenic	–	–	ND(0.005)/ND(0.005)	ND(0.005)	ND(0.005)
Selenium	–	–	ND(0.005)/ND(0.005)	ND(0.005)	ND(0.005)
Thallium	–	–	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)
Inorganics–Dissolved					
Arsenic	ND(0.001 J)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Selenium	ND(0.005)	ND(0.005)	ND(0.0057)	ND(0.005)	ND(0.005)
Thallium	ND(0.002 J)	ND(0.004 J)	ND(0.001)	ND(0.001)	ND(0.001)
Miscellaneous					
Ammonia Nitrogen	–	–	5.9	5.2	5
Estimated Unionized Ammonia	–	–	0.4248 (GSI)	0.3744 (GSI)	0.36 (GSI)

X–9CAUG (20–25)	7/24/1995	6/8/1996	12/15/2006	1/8/2008	3/11/2008
Inorganics					
Arsenic	–	–	ND(0.005)	ND(0.005)	ND(0.005)
Selenium	–	–	ND(0.005)	ND(0.005)	ND(0.005)
Thallium	–	–	ND(0.001)	ND(0.001)	ND(0.001)
Inorganics–Dissolved					
Arsenic	ND(0.001 J)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Selenium	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Thallium	ND(0.002)	ND(0.002 J)	ND(0.001)	ND(0.001)	ND(0.001)
Miscellaneous					
Ammonia Nitrogen	–	–	2.9	3.2	3.3
Estimated Unionized Ammonia	–	–	0.2088 (GSI)	0.2304 (GSI)	0.2376 (GSI)

X–9D (42.5–47.5)	1/8/2008	3/11/2008	6/5/2008
Inorganics			
Arsenic	ND(0.005)	ND(0.005)	–
Selenium	ND(0.005)	ND(0.005)	–
Thallium	ND(0.001)	ND(0.001)	–
Inorganics–Dissolved			
Arsenic	ND(0.005)	ND(0.005)	–
Selenium	ND(0.005)	ND(0.005)	–
Thallium	ND(0.001)	ND(0.001)	–
Miscellaneous			
Ammonia Nitrogen	8.5	9.7	5.9
Estimated Unionized Ammonia	0.612 (GSI)	0.6984 (GSI)	0.4248 (GSI)



LEGEND:

- GM SAGINAW MALLEABLE IRON PLANT PROPERTY LINE (APPROX.)
- REALM, INC. PROPERTY LINE (APPROX.)
- UNPAVED ROAD
- GROUND SURFACE ELEVATION CONTOUR (10 FT INTERVAL)
- FENCE LINE
- SWAMPY AREA
- MW-125WT — MONITORING WELL
- MW-2A,B,CAUG — MONITORING WELL CLUSTER
- SG5 — STAFF GAUGE
- TP-1 — PIEZOMETER
- RW-1 — RECOVERY WELL
- X-6 — ABANDONED MONITORING WELL
- X-5A,B,C — ABANDONED MONITORING WELL CLUSTER
- ARSENIC MIXING ZONE
- THALLIUM MIXING ZONE
- SELENIUM MIXING ZONE
- UN–IONIZED AMMONIA MIXING ZONE
- EXCEEDS MICHIGAN PART 201 GENERIC INDUSTRIAL SCREENING CRITERIA:
  - GSI – GROUNDWATER/SURFACE WATER INTERFACE CRITERIA
  - IDW – INDUSTRIAL DRINKING WATER CRITERIA

NOTES:

1. THIS PHOTOGRAMMETRIC BASE MAP FOR THE GM SAGINAW MALLEABLE IRON PLANT AND DELPHI SAGINAW STEERING SYSTEMS PLANT 2 PROPERTIES WAS PREPARED BY LOCKWOOD MAPPING, INC. OF ROCHESTER, NEW YORK. AERIAL PHOTOGRAPHY WAS CONDUCTED ON 11/11/94. ORIGINAL LOCKWOOD MAP WAS AT A SCALE OF 1"=100' AND WAS INTERPRETED FOR TWO–FOOT CONTOURS.
2. BASE MAP HAS BEEN MODIFIED TO INCORPORATE BUFFER BASIN, SEDIMENTATION BASINS, WETLANDS MITIGATION AREA, AND GREEN POINT LANDFILL (GPL) FINAL COVER FROM THE FINAL ENGINEERING DESIGN REPORT PREPARED BY BBL FOR THE GPL, DATED JANUARY 1998.
3. VERTICAL DATUM REFERENCED TO NGVD OF 1929, HORIZONTAL DATUM REFERENCED TO MICHIGAN SPC–NAD 1983.
4. PROPERTY BOUNDARY FOR REALM, INC, DIGITIZED FROM SPICER GROUP DRAWING NO. A–21854–1, DATED 3/27/98.
5. ND (0.039)–CONSTITUENT NOT DETECTED. ASSOCIATED DETECTION LIMIT PRESENTED IN PARENTHESES.
6. B = THE DETECTED ANALYTE IS ESTIMATED VALUE BETWEEN THE INSTRUMENT DETECTION LIMIT (IDL) AND THE REPORTING LIMIT (RL).
7. J = THE COMPOUND WAS POSITIVELY IDENTIFIED; HOWEVER, THE ASSOCIATED NUMERICAL VALUE IS AN ESTIMATED CONCENTRATION ONLY.

0 300' 600'
GRAPHIC SCALE

SAGINAW MALLEABLE IRON PLANT PROPERTY,
GREEN POINT LANDFILL, AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

MIXING ZONE AREA MAP

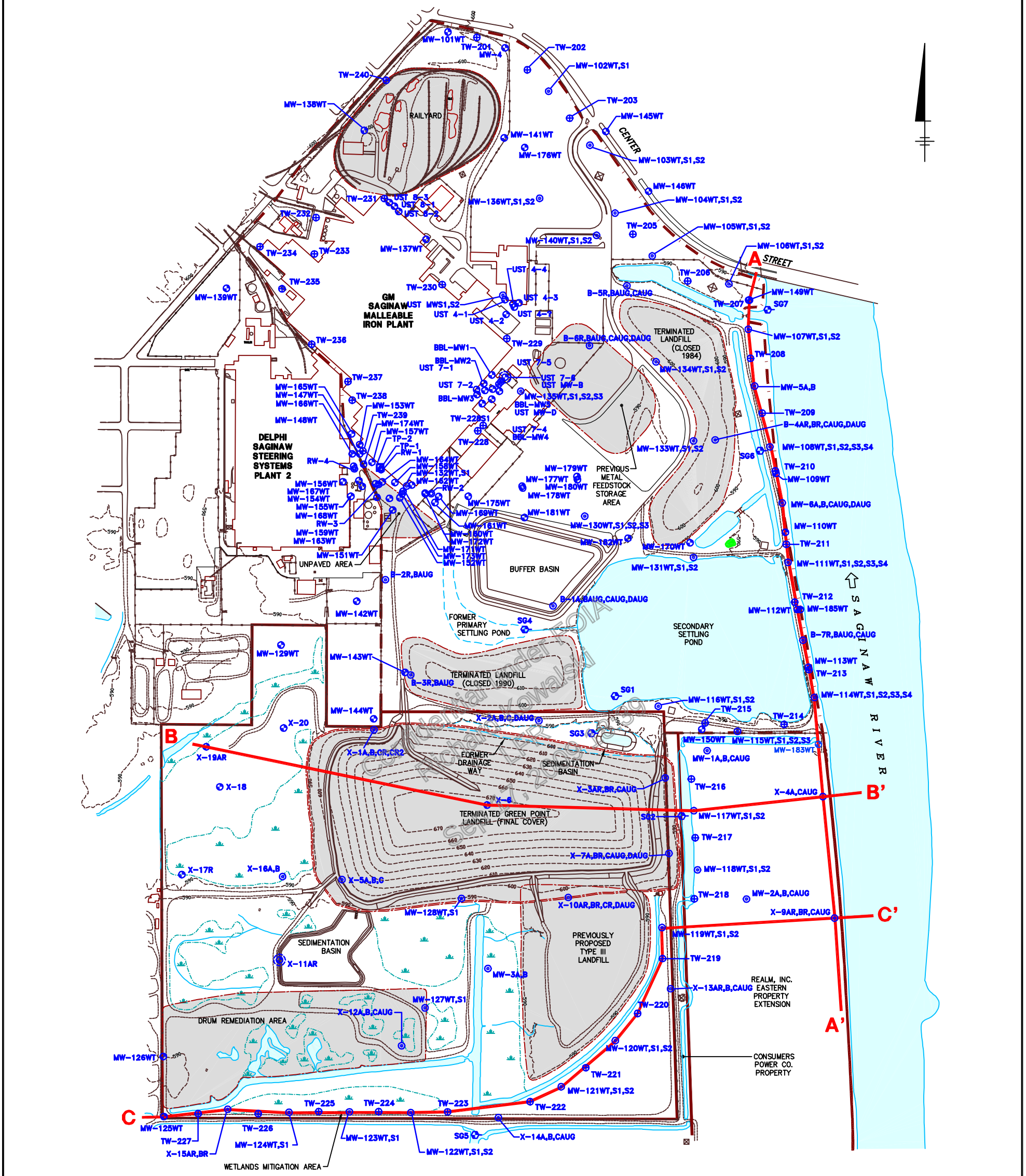
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FIGURE
I-2

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LFR
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CITY: SYRACUSE GROUP: 141 DB: GMS RCA PGL PM: J. ROBINSON LYR:ON=*;OFF=REF
G:\CAD\ACT\B0027608\0000\00110\DWG\RAP\27608G01.DWG LAYOUT: I-3 SAVED: 7/29/2008 8:56 AM ACADVER: 17.0S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 7/29/2008 8:57 AM BY: STINSON, KATE
XREFS: IMAGES: PROJECTNAME: ----
27608X04



LEGEND

- GM SAGINAW MALLEABLE IRON PLANT PROPERTY LINE (APPROX.)
- REALM, INC. PROPERTY LINE (APPROX.)
- UNPAVED ROAD
- GROUND SURFACE ELEVATION CONTOUR (10 FT INTERVAL)
- FENCE LINE
- SWAMPY AREA
- MW-4 — MONITORING WELL
- MW-102WT,S1 — MONITORING WELL CLUSTER
- TW-203 — TEMPORARY MONITORING WELL
- SG5 — STAFF GAUGE
- TP-2 — PIEZOMETER
- RW-4 — RECOVERY WELL
- X-11AR — ABANDONED MONITORING WELL
- A—A' — CROSS SECTION LOCATION

NOTES:

1. THIS PHOTOGRAMMETRIC BASE MAP FOR THE GM SAGINAW MALLEABLE IRON PLANT AND DELPHI SAGINAW STEERING SYSTEMS PLANT 2 PROPERTIES WAS PREPARED BY LOCKWOOD MAPPING, INC. OF ROCHESTER, NEW YORK. AERIAL PHOTOGRAPHY WAS CONDUCTED ON 11/11/94. ORIGINAL LOCKWOOD MAP WAS AT A SCALE OF 1"=100' AND WAS INTERPRETED FOR TWO-FOOT CONTOURS.
2. SAMPLING LOCATIONS SURVEYED BY ATWELL-HICKS, INC. UTICA, MICHIGAN, FILE NO. M1014SU2, FILE DATE 3/22/96, REVISED 8/8/96, OR SPICER GROUP.
3. VERTICAL DATUM REFERENCED TO NGVD OF 1929, HORIZONTAL DATUM REFERENCED TO MICHIGAN SPC-NAD 1983.
4. BASE MAP HAS BEEN MODIFIED TO INCORPORATE BUFFER BASIN, SEDIMENTATION BASINS, WETLANDS MITIGATION AREA, AND GREEN POINT LANDFILL (GPL) FINAL COVER FROM THE FINAL ENGINEERING DESIGN REPORT PREPARED BY BBL FOR THE GPL, DATED JANUARY 1998.
5. PROPERTY BOUNDARY FOR REALM, INC. DIGITIZED FROM SPICER GROUP DRAWING NO. A-21854-1, DATED 3/27/98.

0 500' 1000'
GRAPHIC SCALE

SAGINAW MALLEABLE IRON PLANT PROPERTY,
GREEN POINT LANDFILL, AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

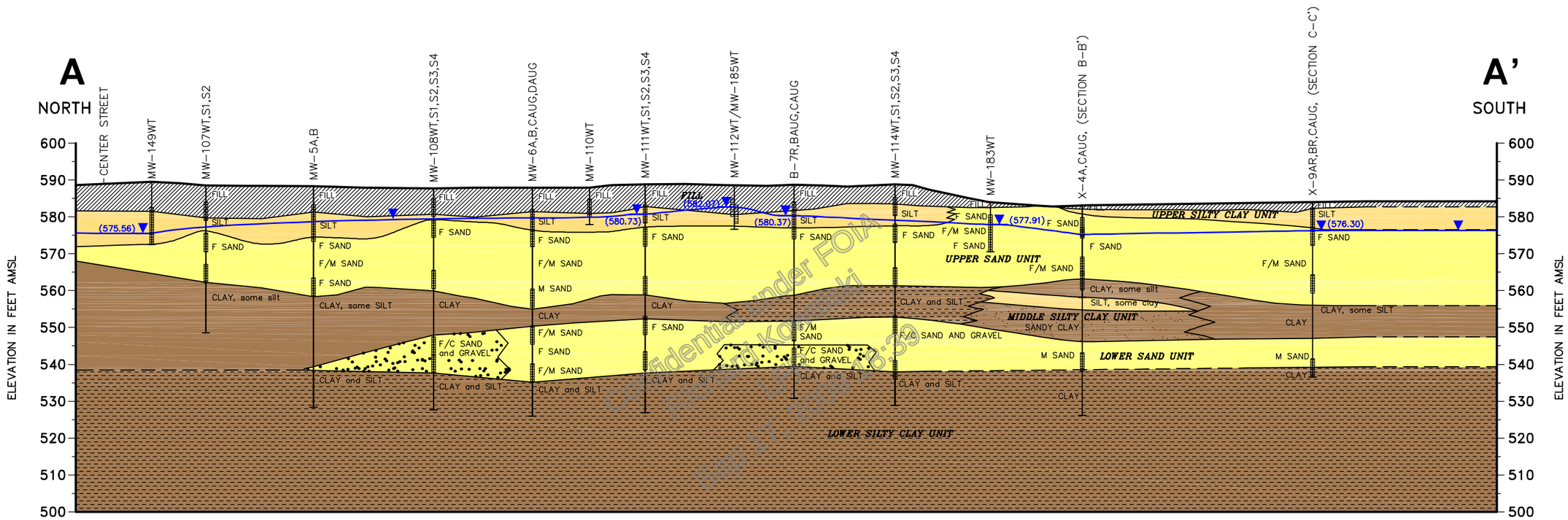
CROSS-SECTION LOCATION MAP

ARCADIS

FIGURE
I-3

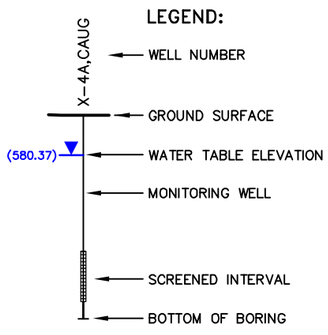
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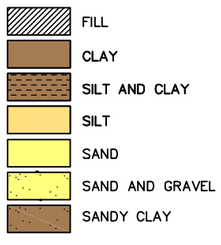
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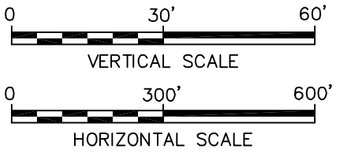


NOTES:

1. GEOLOGIC INTERPRETATION DEVELOPED BY BBL, INC. USING DATA FROM SITEWIDE RI/FS.
2. ALL ELEVATIONS IN FEET ABOVE MEAN SEA LEVEL (AMSL) RELATIVE TO NGVD OF 1929.
3. F, M, C = FINE, MEDIUM, COARSE.
4. TEMPORARY WELLS NOT SHOWN.
5. LITHOLOGIC CONTOURS DASHED WHERE INFERRED.







SAGINAW MALLEABLE IRON PLANT PROPERTY,
GREEN POINT LANDFILL, AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

GEOLOGIC CROSS SECTION A-A'

ARCADIS

FIGURE
I-4

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CITY:SYRACUSE GROUP: ENV-141 DB: GMS; RCA, PGL PM: J. ROBERTON LYR:ON=*;OFF=REF, (FRZ)
G:\CAD\ACTIB\02768\0000\00110\DWG\RAP\27608V03.DWG LAYOUT: I-4SAVED: 7/29/2008 8:58 AM ACADVER: 17.0S (LMS TECH) PAGESETUP: ---PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 7/29/2008 8:59 AM BY: STINSON, KATE
XREFS: IMAGES: PROJECTNAME: ---
27608XBL

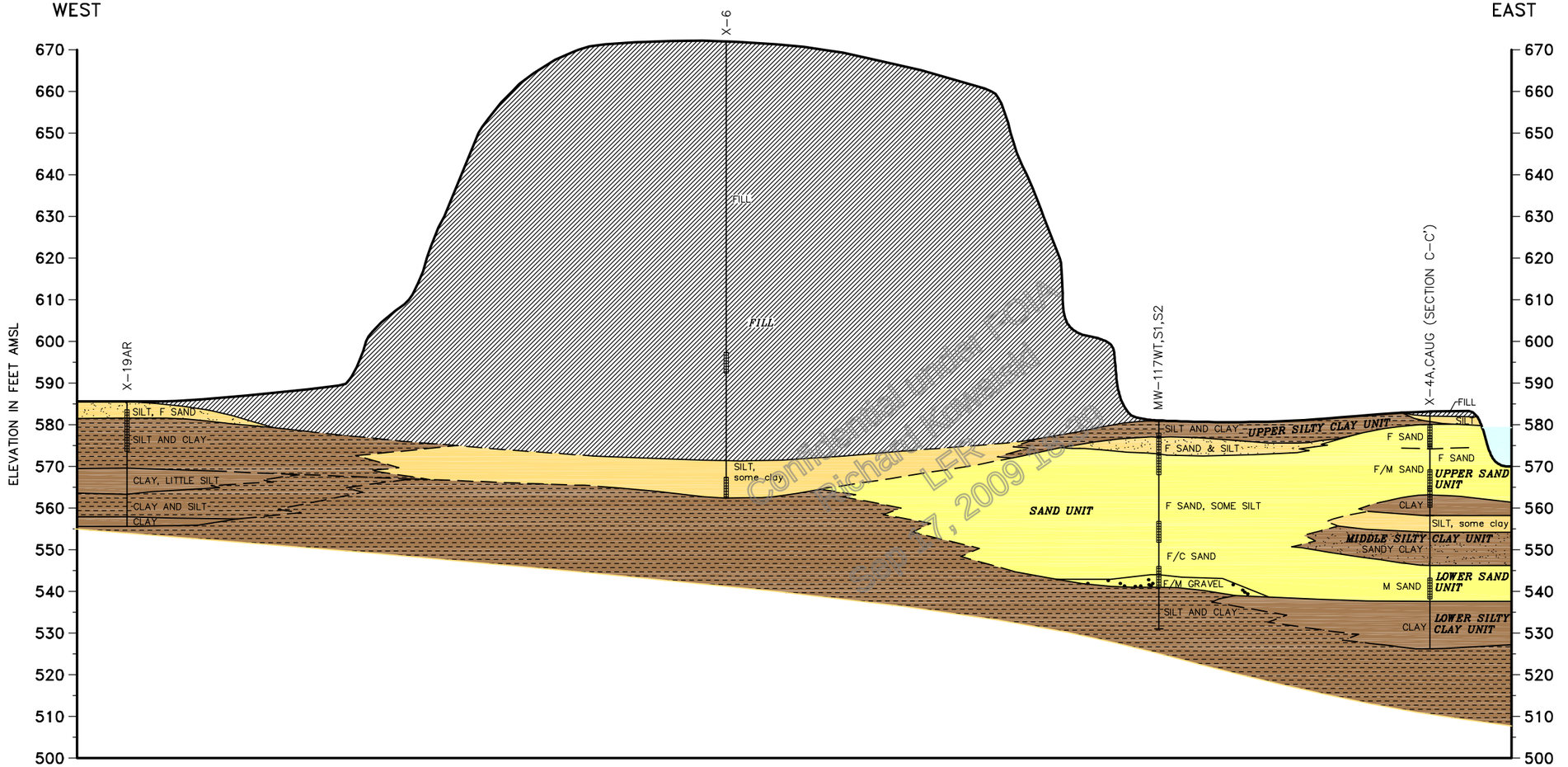
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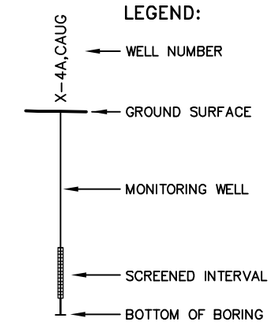
B

WEST

B'

EAST





0 30' 60'
VERTICAL SCALE

0 300' 600'
HORIZONTAL SCALE

NOTES:

1. GEOLOGIC INTERPRETATION DEVELOPED BY BBL, INC. USING DATA FROM SITEWIDE RI/FS.
2. ALL ELEVATIONS IN FEET ABOVE MEAN SEA LEVEL (AMSL) RELATIVE TO NGVD OF 1929.
3. F, M, C = FINE, MEDIUM, COARSE
4. LITHOLOGIC CONTOURS DASHED WHERE INFERRED.

SAGINAW MALLEABLE IRON PLANT PROPERTY,
GREEN POINT LANDFILL, AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

GEOLOGIC CROSS SECTION B-B'

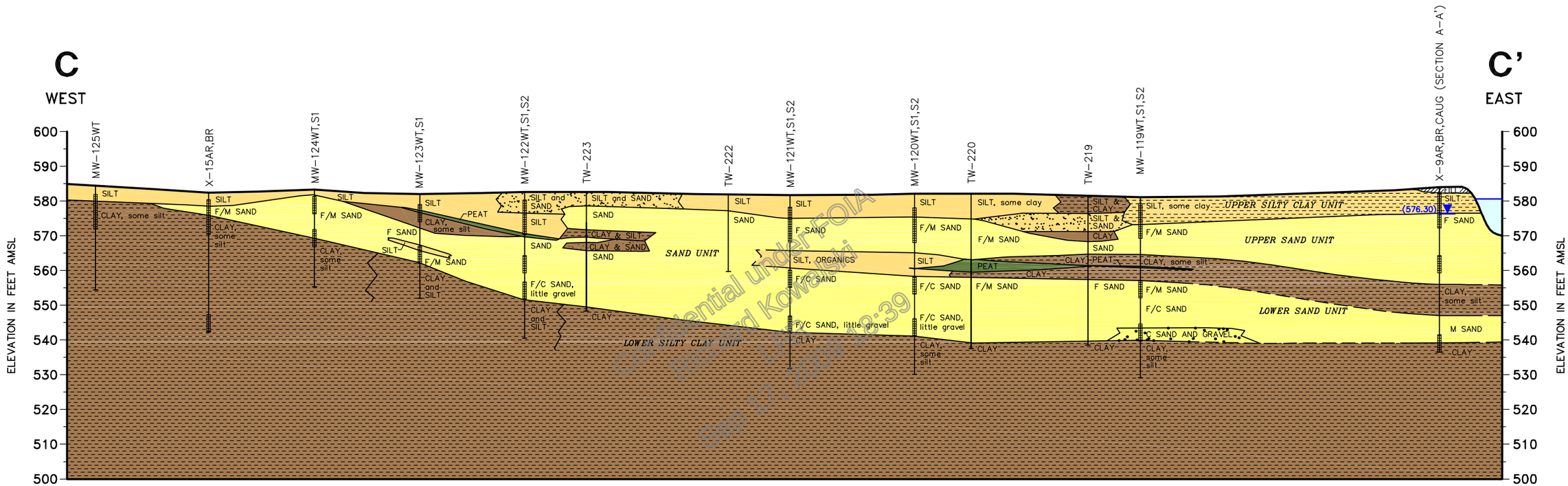
ARCADIS

FIGURE
I-5

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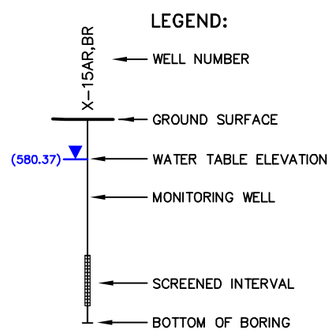
CITY:SYRACUSE GROUP: ENV-141 DB:RCA PGL PM: J. ROBERTSON LYR:ON=*;OFF=REF
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XREFS: 27608XBL IMAGES: PROJECTNAME: ---

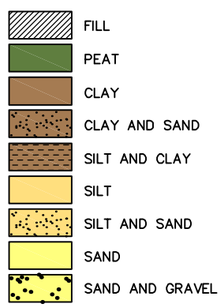
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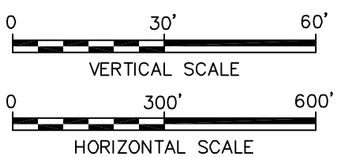


NOTES:

1. GEOLOGIC INTERPRETATION DEVELOPED BY BBL, INC. USING DATA FROM SITEWIDE RI/FS.
2. ALL ELEVATIONS IN FEET ABOVE MEAN SEA LEVEL (AMSL) RELATIVE TO NGVD OF 1929.
3. F, M, C = FINE, MEDIUM, COARSE
4. LITHOLOGIC CONTOURS DASHED WHERE INFERRED.







SAGINAW MALLEABLE IRON PLANT PROPERTY,
GREEN POINT LANDFILL, AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

GEOLOGIC CROSS SECTION C-C'

ARCADIS

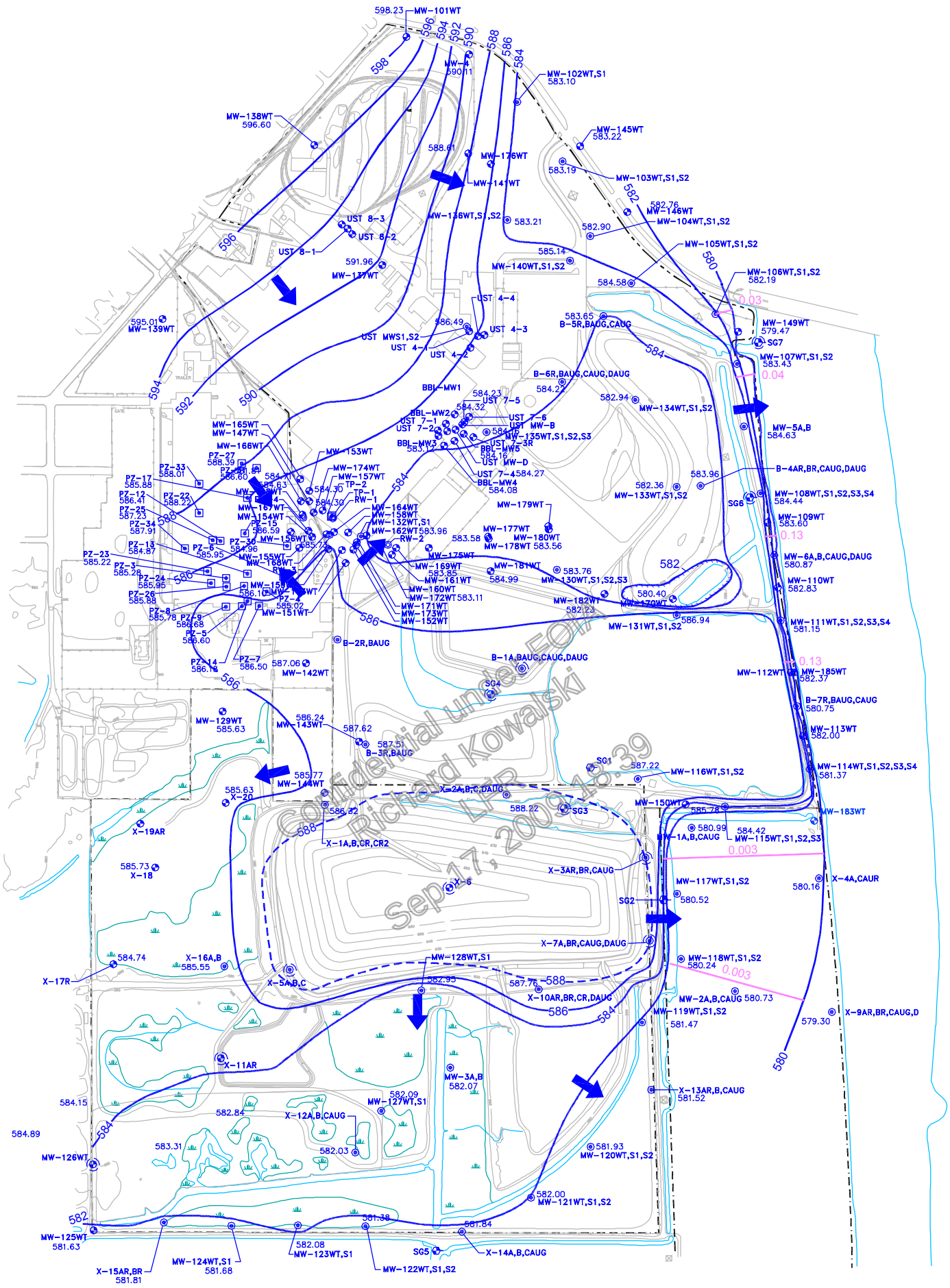
FIGURE
I-6

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CITY:SYRACUSE GROUP: ENV-141 DB: GMS RCA PGL PM: J. ROBERTSON LYR: ON=*;OFF=*REF
G:\CAD\ACTIVE\00276080000001101\DWG\RAP\276080V06.DWG LAYOUT: I-6SAVED: 7/29/2008 9:02 AM ACADVER: 17.0S (LMS TECH) PAGESETUP: ---PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 7/29/2008 9:03 AM BY: STINSON, KATE
XREFS: IMAGES: PROJECTNAME: ---
276080XBL

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CITY: SYRACUSE DIV/GROUP: 141 DB: GMS LD: GMS PM:(Reqd) LYR:ON=*;OFF=*REF
G:\CAD\ACT\B0027608\0000\00110\DWG\RAP\27608W01.DWG LAYOUT: I-7 SAVED: 7/29/2008 9:05 AM ACADVER: 17.0S (LMS TECH) PAGESETUP: --- PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 7/29/2008 9:05 AM BY: STINSON, KATE
XREFS: IMAGES: PROJECTNAME: ----
27608X01



LEGEND:

- GM SAGINAW MALLEABLE IRON PLANT PROPERTY LINE (APPROX.)
- REALM, INC. PROPERTY LINE (APPROX.)
- UNPAVED ROAD
- GROUND SURFACE ELEVATION CONTOUR (10 FT INTERVAL)
- FENCE LINE
- SWAMPY AREA
- MW-125WT — MONITORING WELL
- MW-2A,B,CAUG — MONITORING WELL CLUSTER
- SG5 — STAFF GAUGE
- TP-1 — PIEZOMETER
- RW-1 — RECOVERY WELL
- X-6 — ABANDONED MONITORING WELL
- X-5A,B,C — ABANDONED MONITORING WELL CLUSTER
- 582.88 — GROUNDWATER ELEVATION (FEET AMSL)
- 582 — GROUNDWATER ELEVATION CONTOUR LINE (FEET AMSL), DASHED WHERE INFERRED
- GROUNDWATER FLOW DIRECTION
- 0.003 — HORIZONTAL HYDRAULIC GRADIENT RESULT

NOTES:

1. THIS PHOTOGRAMMETRIC BASE MAP FOR THE GM SAGINAW MALLEABLE IRON PLANT AND DELPHI SAGINAW STEERING SYSTEMS PLANT 2 PROPERTIES WAS PREPARED BY LOCKWOOD MAPPING, INC. OF ROCHESTER, NEW YORK. AERIAL PHOTOGRAPHY WAS CONDUCTED ON 11/11/94. ORIGINAL LOCKWOOD MAP WAS AT A SCALE OF 1"=100' AND WAS INTERPRETED FOR TWO-FOOT CONTOURS.
2. SAMPLING LOCATIONS SURVEYED BY ATWELL-HICKS, INC. UTICA, MICHIGAN, FILE NO. M1014SU2, FILE DATE 3/22/96, REVISED 8/8/96, OR SPICER GROUP.
3. VERTICAL DATUM REFERENCED TO NGVD OF 1929, HORIZONTAL DATUM REFERENCED TO MICHIGAN SPC-NAD 1983.
4. BASE MAP HAS BEEN MODIFIED TO INCORPORATE BUFFER BASIN, SEDIMENTATION BASINS, WETLANDS MITIGATION AREA, AND GREEN POINT LANDFILL (GPL) FINAL COVER FROM THE FINAL ENGINEERING DESIGN REPORT PREPARED BY BBL FOR THE GPL, DATED JANUARY 1998.
5. PROPERTY BOUNDARY FOR REALM, INC, DIGITIZED FROM SPICER GROUP DRAWING NO. A-21854-1, DATED 3/27/98.

0 300' 600'
GRAPHIC SCALE

SAGINAW MALLEABLE IRON PLANT PROPERTY,
GREEN POINT LANDFILL, AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

WATER TABLE ELEVATION CONTOUR MAP - MAY 16, 2000

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FIGURE
I-7

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ATTACHMENTS

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Attachment 1

In-Situ Hydraulic Conductivity Testing Results

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ATTACHMENT 1
IN-SITU HYDRAULIC CONDUCTIVITY TESTING RESULTS

SMI PLANT PROPERTY, GREEN POINT LANDFILL, AND DRUM REMEDIATION AREA
REMEDIAL INVESTIGATION

Monitoring Well I.D.	Monitoring Well Screened in Soil Unit						Hydraulic Conductivity (ft/min)	Hydraulic Conductivity (cm/s)
	Fill	Silt	Upper Sand	Upper Clay	Lower Sand	Lower Clay		
Remedial Investigation								
B-2R	X		X				6.66E-03	3.38E-03
B-2BAUG			X	X			1.13E-04	5.74E-05
B-3R	X	X					3.90E-03	1.98E-03
B-3BAUG		X			X		8.44E-04	4.29E-04
B-4AR	X	X					4.73E-04	2.40E-04
B-4BR					X		1.39E-04	7.06E-05
B-4CAUG				X			6.31E-05	3.21E-05
B-4DAUG					X		1.27E-03	6.45E-04
B-5R			X	X			7.30E-04	3.71E-04
B-5BAUG			X				5.55E-02	2.82E-02
B-5CAUG					X		4.05E-02	2.06E-02
B-6R	X		X				1.63E-01	8.28E-02
B-6BAUG				X	X		8.65E-03	4.39E-03
B-6CAUG					X		5.74E-02	2.92E-02
B-6DAUG					X		3.13E-02	1.59E-02
B-7R	X	X	X				1.04E-03	5.28E-04
B-7BAUG			X				3.96E-04	2.01E-04
B-7CAUG			X				2.15E-04	1.09E-04
MW-1A			X				2.07E-03	1.05E-03
MW-1B						X	6.47E-06	3.29E-06
MW-1CAUG					X		8.69E-02	4.41E-02
MW-2A		X	X				1.27E-02	6.45E-03
MW-2B			X	X			3.85E-03	1.96E-03
MW-2CAUG				X	X		1.92E-04	9.75E-05
MW-3A		X	X				4.49E-04	2.28E-04
MW-3B					X		1.77E-03	8.99E-04
MW-4		X		X			4.63E-03	2.35E-03
MW-5A	X	X					3.52E-03	1.79E-03
MW-5B					X		1.60E-03	8.13E-04
MW-6A	X	X	X				3.69E-03	1.87E-03
MW-6B					X		3.47E-03	1.76E-03
MW-6DAUG				X	X		1.28E-03	6.50E-04
UST1-MWS1					X		1.18E-04	5.99E-05
UST1-MWS2					X		9.46E-04	4.81E-04
X-1A	X						1.11E-02	5.64E-03
X-1CR	X						7.61E-02	3.87E-02
X-1B				X			4.80E-05	2.44E-05
X-1CR2				X			3.29E-07	1.67E-07
X-2A	X						7.72E-03	3.92E-03
X-2B			X				9.55E-03	4.85E-03
X-2C			X				5.03E-02	2.56E-02
X-2DAUG			X				3.85E-02	1.96E-02
X-3AR	X						8.03E-05	4.08E-05
X-3BR					X		6.21E-02	3.15E-02
X-3CAUG					X		5.96E-02	3.03E-02
X-4CAUG					X		8.56E-03	4.35E-03
X-5B	X		X				2.83E-03	1.44E-03
X-5CR				X			1.34E-06	6.81E-07
X-7A		X					1.13E-05	5.74E-06
X-7BR					X		1.30E-03	6.60E-04
X-7CAUG					X		5.76E-02	2.93E-02
X-7DAUG					X		9.37E-02	4.76E-02
X-9AR	X		X				2.41E-04	1.22E-04
X-9BR			X				1.71E-03	8.69E-04
X-9CAUG			X	X			3.27E-02	1.66E-02
X-10BR					X		1.14E-01	5.79E-02
X-10CR					X		1.08E-01	5.49E-02
X-10DR					X		4.41E-02	2.24E-02
X-11AR	X			X			2.37E-04	1.20E-04

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ATTACHMENT 1
IN-SITU HYDRAULIC CONDUCTIVITY TESTING RESULTS

SMI PLANT PROPERTY, GREEN POINT LANDFILL, AND DRUM REMEDIATION AREA
REMEDIAL INVESTIGATION

Monitoring Well I.D.	Monitoring Well Screened in Soil Unit						Hydraulic Conductivity (ft/min)	Hydraulic Conductivity (cm/s)
	Fill	Silt	Upper Sand	Upper Clay	Lower Sand	Lower Clay		
Remedial Investigation (Cont'd.)								
X-12AR	X						7.71E-04	3.92E-04
X-12B	X	X	X	X			3.79E-06	1.93E-06
X-12CAUG					X		2.53E-04	1.29E-04
X-13AR	X	X	X				2.22E-02	1.13E-02
X-13CAUG					X		1.45E-02	7.37E-03
X-14A	X						9.71E-03	4.93E-03
X-14B			X				2.41E-03	1.22E-03
X-14CAUG			X				5.55E-02	2.82E-02
X-15AR	X			X			9.09E-04	4.62E-04
X-15BR						X	4.67E-07	2.37E-07
X-16A	X	X					3.23E-04	1.64E-04
X-16B				X			3.30E-07	1.68E-07
X-17R	X						7.03E-05	3.57E-05
X-18		X		X			3.33E-06	1.69E-06
X-19AR		X		X			4.25E-02	2.16E-02
X-20	X			X			6.35E-03	3.23E-03
MW-101WT						X	2.88E-06	1.46E-06
MW-102WT	X		X				5.23E-04	2.66E-04
MW-102S1			X				1.55E-04	7.87E-05
MW-103WT	X		X				1.15E-01	5.84E-02
MW-103S1					X		1.39E-02	7.06E-03
MW-103S2					X		4.94E-03	2.51E-03
MW-104WT	X		X				9.52E-04	4.84E-04
MW-104S1					X		2.03E-02	1.03E-02
MW-104S2					X		1.01E-02	5.13E-03
MW-105WT		X	X				3.66E-03	1.86E-03
MW-105S1					X		7.10E-02	3.61E-02
MW-105S2					X		4.15E-02	2.11E-02
MW-106WT	X	X					6.97E-03	3.54E-03
MW-106S1			X				4.20E-05	2.13E-05
MW-106S2			X				4.03E-05	2.05E-05
MW-107WT	X	X					2.07E-02	1.05E-02
MW-107S1			X				6.77E-04	3.44E-04
MW-107S2			X				7.85E-04	3.99E-04
MW-108WT	X	X					8.03E-02	4.08E-02
MW-108S1			X				4.05E-03	2.06E-03
MW-108S2			X				5.43E-03	2.76E-03
MW-108S3					X		5.81E-03	2.95E-03
MW-108S4					X		1.85E-03	9.40E-04
MW-109WT	X	X					1.83E-03	9.30E-04
MW-110WT	X	X					5.34E-03	2.71E-03
MW-111WT	X	X					6.52E-03	3.31E-03
MW-111S1			X				9.79E-04	4.97E-04
MW-111S2			X				2.19E-02	1.11E-02
MW-111S3					X		7.86E-06	3.99E-06
MW-111S4					X		1.39E-04	7.06E-05
MW-112WT	X	X					4.50E-02	2.29E-02
MW-113WT	X	X					1.57E-04	7.98E-05
MW-114WT	X	X					9.52E-04	4.84E-04
MW-114S1			X				1.47E-03	7.47E-04
MW-114S2			X				1.23E-01	6.25E-02
MW-114S3					X		8.21E-04	4.17E-04
MW-114S4					X		1.59E-04	8.08E-05
MW-115WT	X	X					8.26E-03	4.20E-03
MW-115S1			X				1.81E-02	9.19E-03
MW-115S2					X		1.60E-03	8.13E-04
MW-115S3					X		3.12E-03	1.58E-03
MW-116WT	X	X					2.11E-02	1.07E-02
MW-116S1					X		1.19E-01	6.05E-02
MW-116S2					X		7.60E-03	3.86E-03

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ATTACHMENT 1
IN-SITU HYDRAULIC CONDUCTIVITY TESTING RESULTS

SMI PLANT PROPERTY, GREEN POINT LANDFILL, AND DRUM REMEDIATION AREA
REMEDIAL INVESTIGATION

Monitoring Well I.D.	Monitoring Well Screened in Soil Unit						Hydraulic Conductivity (ft/min)	Hydraulic Conductivity (cm/s)
	Fill	Silt	Upper Sand	Upper Clay	Lower Sand	Lower Clay		
Remedial Investigation (Cont'd.)								
MW-117WT	X		X				5.16E-03	2.62E-03
MW-117S1					X		2.87E-02	1.46E-02
MW-117S2					X		1.98E-02	1.01E-02
MW-118WT	X		X				2.98E-03	1.51E-03
MW-118S1					X		1.65E-02	8.38E-03
MW-118S2					X		1.81E-02	9.19E-03
MW-119WT	X		X				1.56E-02	7.92E-03
MW-119S1					X		4.74E-02	2.41E-02
MW-119S2					X		1.42E-02	7.21E-03
MW-120WT		X	X				1.37E-02	6.96E-03
MW-120S1					X		7.52E-02	3.82E-02
MW-120S2					X		3.12E-03	1.58E-03
MW-121WT		X	X				1.12E-02	5.69E-03
MW-121S1					X		1.26E-01	6.40E-02
MW-121S2					X		1.85E-02	9.40E-03
MW-122WT	X	X					2.74E-04	1.39E-04
MW-122S1					X		8.47E-03	4.30E-03
MW-122S2					X		4.44E-03	2.26E-03
MW-123WT		X		X			6.10E-04	3.10E-04
MW-123S1				X			4.62E-04	2.35E-04
MW-124WT			X				1.35E-02	6.86E-03
MW-124S1			X				4.89E-04	2.48E-04
MW-125WT		X				X	2.11E-04	1.07E-04
MW-126WT						X	1.10E-04	5.59E-05
MW-127WT		X	X				1.53E-04	7.77E-05
MW-127S1					X		5.27E-04	2.68E-04
MW-128WT	X		X	X			3.76E-04	1.91E-04
MW-128S1					X		1.56E-03	7.92E-04
MW-129WT		X			X		5.43E-04	2.76E-04
MW-130WT	X						4.47E-03	2.27E-03
MW-130S1					X		2.34E-02	1.19E-02
MW-130S2					X		1.06E-01	5.38E-02
MW-130S3					X		2.52E-02	1.28E-02
MW-131WT	X	X					3.72E-03	1.89E-03
MW-131S1					X		2.30E-02	1.17E-02
MW-131S2					X		3.46E-02	1.76E-02
MW-132WT	X	X	X				1.23E-02	6.25E-03
MW-132S1			X	X			5.81E-05	2.95E-05
MW-133WT	X	X					2.23E-03	1.13E-03
MW-133S1					X		2.41E-02	1.22E-02
MW-133S2					X		4.18E-02	2.12E-02
MW-134WT	X		X				4.83E-03	2.45E-03
MW-134S1					X		1.00E-01	5.08E-02
MW-134S2					X		3.37E-02	1.71E-02
MW-135WT	X		X				1.77E-02	8.99E-03
MW-135S1					X		1.46E-03	7.42E-04
MW-135S2					X		1.92E-02	9.75E-03
MW-135S3					X		5.72E-03	2.91E-03
MW-136WT	X						8.21E-02	4.17E-02
MW-136S1					X		8.47E-03	4.30E-03
MW-136S2					X		9.56E-03	4.86E-03
MW-137WT	X					X	1.32E-04	6.71E-05
MW-138WT				X			4.83E-07	2.45E-07
MW-139WT				X			8.55E-07	4.34E-07
MW-140WT	X			X			7.97E-05	4.05E-05
MW-140S1					X		3.38E-02	1.72E-02
MW-140S2					X		1.61E-02	8.18E-03
MW-141WT	X	X		X			1.36E-03	6.91E-04
MW-142WT	X	X	X				5.53E-03	2.81E-03
MW-143WT	X	X					7.33E-03	3.72E-03

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SMI PLANT PROPERTY, GREEN POINT LANDFILL, AND DRUM REMEDIATION AREA
REMEDIAL INVESTIGATION

Monitoring Well I.D.	Monitoring Well Screened in Soil Unit						Hydraulic Conductivity (ft/min)	Hydraulic Conductivity (cm/s)
	Fill	Silt	Upper Sand	Upper Clay	Lower Sand	Lower Clay		
Remedial Investigation (Cont'd.)								
MW-144WT	X	X					3.71E-03	1.88E-03
MW-145WT	X						2.01E-02	1.02E-02
MW-146WT	X	X					2.92E-02	1.48E-02
LNAPL Assessment and Remediation Area Investigation								
MW-156WT							1.05E-01	5.33E-02
MW-164WT							9.27E-03	4.71E-03
MW-165WT							8.49E-03	4.31E-03
MW-166WT							2.10E-02	1.07E-02
MW-169WT							4.90E-03	2.49E-03
MW-170WT							7.61E-03	3.87E-03
TP-1							1.88E-01	9.55E-02
Former UST #7 Area Investigation								
BBL-MW1	X		X	X			2.81E-02	1.43E-02
BBL-MW2	X		X				4.11E-02	2.09E-02
BBL-MW3	X		X				3.17E-02	1.61E-02
BBL-MW4	X			X			1.13E-01	5.76E-02
BBL-MW5	X						4.80E-02	2.44E-02
UST7-4	X						9.15E-02	4.65E-02
UST7-5	X						1.12E-02	5.67E-03

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Attachment 2

Request to MDEQ for Mixing Zone-based GSI Criteria

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ATTACHMENT 1
REQUEST TO MDEQ FOR MIXING ZONE-BASED GSI CRITERIA

Shaded selections of this form should be completed with appropriate information, documentation or narrative to provide the necessary information for the MDEQ to process the request. Original sources of information, if not supplied, should be appended or clearly referenced.

TO: Susan Kaebler-Matlock, Project Manager
Southeast Michigan District Remediation and Redevelopment Division

FROM: General Motors and Waste Management

SUBJECT: Request for Mixing Zone-Based Criteria
Facility Name: *SMI and Green Point Landfill* Part 201 Facility ID#: *73000014*
Saginaw County Part 213 Site ID#:

We are requesting mixing zone-based criteria for the above referenced facility, located in the SE 1/4 of the NW 1/4 of Section 35, T 12, R 4 in Saginaw

The facility characteristics include:

1. The name of the receiving surface water body and the location of the venting groundwater contaminant plume:

   Saginaw River

   This is a ☐ new ☐ increased or ☑ existing loading.
   Recreational Use: ☑ Yes/☐ No (if no, provide an explanation of conditions that make recreation use not applicable to site conditions).

   (MAP ATTACHED).

2. The location, nature, and chemical characteristics of the source of the groundwater contamination plume:

   See supplemental letter

3. The name, Chemical Abstract Service (CAS) Number, and worst case maximum concentration of contaminants predicted to reach the groundwater/surface water interface (GSI). Generally the highest concentration of the contaminant found in the groundwater would be appropriate to represent the worst case maximum. If source contaminants have not yet reached the groundwater but are expected to do so, source concentrations should be identified and noted as such. Mixing zone-based GSI criteria will not be developed for contaminants that are not identified as having a reasonable potential to exceed water quality criteria.

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Chemical or General Chemistry Parameter	CAS #	Predicted Worst Case Maximum GSI Discharge Concentration	Average Surface Water Conc. Upstream If available
Un-ionized Ammonia	7664-41-7	0.425 mg/l	NA
Arsenic	7744-03-82	0.223 mg/l	NA
Selenium	7782-24-92	0.008 mg/l	NA
Thallium	7740-28-0	0.008 mg/l	NA

4. The discharge rate of the venting groundwater contaminant plume in cubic feet per second (cfs).

   See supplemental letter

5. The location of other contaminant plumes entering the receiving surface water body, their constituents and concentrations, if available:

   None known

6. If available:
   The lowest monthly 95 percent exceedance low flow at the discharge location: 580.00 CFS
   The harmonic mean flow at the discharge location: 1,490.00 CFS
   The 90dQ10 flow at the discharge location: 620.00 CFS
   source:
   - ☐ MDEQ Low Flow Data Base
   - ☑ Determined by MDEQ Hydrologic Studies Unit (memo attached)
   - ☐ Other

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this request and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information

Authorized Signature
Name
Title

Authorized signatures:

For a corporation, a principal executive officer of at least the level of vice president or his designated representative. If the designated representative is responsible for the overall operation of the facility from which the groundwater is venting, the designation of the representative must be in writing from a principal executive officer and provided to the MDEQ

For a partnership, a general partner

For a sole proprietorship, the proprietor

For a state, municipal, or other public facility, either a principal executive officer, the mayor, village president, city or village manager, or other authorized employee designated in writing from a principal executive officer and provided to the MDEQ

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If this is a new loading, or increased loading above previously authorized levels, an antidegradation demonstration, which includes the information in 8 and 9 below, or a demonstration of qualification for an exemption under Rule 323.1098 (7) or (8), is required.

7. Please check whether there is
   - ☐ an antidegradation demonstration (Information for 8 and 9 is included.) **or**
   - ☐ a demonstration of qualification for an exemption (Refer to 323.1098 (7) and (8) for elements needed for this demonstration.)

   Please identify below who prepared the antidegradation or exemption demonstration.

8. This is a new or increased loading from venting groundwater. The social or economic development and the benefits to the area in which the waters are located that would be foregone if the new or increased discharge is not allowed include:
   - Employment increases:
   - Production level increases:
   - Employment reductions avoidance:
   - Efficiency increases:
   - Industrial, commercial, or residential growth:
   - Environmental or public health problem corrections:
   - Economic or social benefits to the community:
   - Other relevant factors:

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If the new or increased loading includes the following bioaccumulative chemicals of concern (BCCs), Chlordane, 4,4'-Dichlorodiphenyldichloroethane, 4,4'-Dichlorodiphenyldichloroethylene, 4,4'-Dichlorodiphenyltrichloroethane, Dieldrin, Hexachlorbenzene, Hexachlorobutadiene, Hexachlorocyclohexanes, alpha-Hexachlorocyclohexane, beta-Hexachlorcyclohexane, delta-Hexachlorocyclohexane, Lindane, Mercury, Mirex, Octachlorostyrene, Polychlorinated biphenyls, Pentachlorobenzene, Photomirex, 2,3,7,8-Tetrachlorodibenzodioxin, 1,2,3,4-Tetrachlorobenzene, 1,2,4,5-Tetrachlorobenzene, Toxaphene, complete the following:

9. Please check whether
   - ☐ There is no BCC in the discharge **or**
   - ☐ BCCs are included in the discharge (information for 10. and 11. is included.)

10. The alternatives evaluated and the alternatives to be implemented that will comply with minimizing the discharge of the BCC by implementation of any cost-effective pollution prevention alternatives (such as source control) and techniques reasonably available that would eliminate or significantly reduce the discharge of the BCC are:

11. If pollution prevention alternatives would not eliminate the increased discharge of the BCC, the person making the demonstration must evaluate alternative or enhanced groundwater treatment techniques that would eliminate the discharge of the BCC. The techniques that have a cost that are reasonable relative to the cost of treatment necessary to achieve generic GSI criteria must be implemented. The alternatives evaluated and the alternatives to be implemented that will comply with this requirement are:

Reset Form

Print For Records

Submit to Cadillac District Office

Submit to Gaylord Field Office

Submit to Grand Rapids District Office

Submit to Jackson District Office

Submit to Kalamazoo District Office

Submit to Lansing District Office

Submit to Saginaw Bay District

Submit to Southeast Michigan District Office

Submit to Upper Peninsula District Office

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Attachment 1

Correspondence

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STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
SAGINAW BAY DISTRICT OFFICE

JENNIFER M. GRANHOLM
GOVERNOR

STEVEN E. CHESTER
DIRECTOR

February 23, 2006

CERTIFIED MAIL

Ms. Cheryl Hiatt
GM WFG-Remediation
Pontiac Centerpoint Campus Central
1st floor, Cobalt Section
Mail Code 483-520-190
2000 Centerpoint Parkway
Pontiac, Michigan 48341-3146

Dear Ms. Hiatt:

SUBJECT: Human Health Risk Assessment - Revised Draft Remedial Action Plan
Saginaw Malleable Iron Plant/Green Point Landfill
Consent Judgment No. 98-22686-CE-2

This letter has been prepared as follow-up to issues discussed during our February 22, 2006, meeting at General Motors Corporation (GM) offices in Pontiac related to the revised Remedial Action Plan (Revised RAP) submitted by GM under the provisions of the Consent Judgement No. 98-22686-CE-2. The meeting was productive towards resolving outstanding issues related to the human health risk component of the Revised RAP. The following is understood by the Remediation and Redevelopment Division (RRD) to be the agreed upon actions:

- GM will prepare a letter that contains information sufficient to address Department of Environmental Quality (DEQ) comments and concerns expressed in the January 18, 2006, DEQ memorandum in accordance with discussions and determinations made during the February 22 meeting. GM will submit this letter to the DEQ for review on or before **March 24, 2006**.

- The RRD staff will review information presented in the letter and will provide GM with formal written response as to the acceptability of the information presented in the letter on or before **April 7, 2006**. The RRD staff will immediately contact GM should there be any questions or concerns regarding the information presented in the letter.

- Incorporating the information contained in the GM letter, the DEQ will provide GM with a formal determination regarding the acceptability of the Revised RAP on or before **May 19, 2006**. This date was agreed upon by GM and DEQ representatives during the meeting.

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Please contact Sue Kaelber-Matlock, Project Manager (989-686-80925, extension 8303) or me should there be any questions or concerns regarding the information presented in this letter.

Sincerely,

Allan C. Brouillet

Allan C. Brouillet, Enforcement Coordinator
Saginaw Bay District Office
Remediation and Redevelopment Division
989-686-8025, Extension 8305

cc: Mr. Anthony Thrubis, GM
Ms. Rachel Schneider, Quarles Brady
Mr. Ed Peterson, REALM
Mr. Jeff Jatczak, GM
Mr. Phil Mazor, WMI
Ms. Lisa Coffey, BBL
Mr. John Leone, DAG
Ms. Sue Kaelber-Matlock, DEQ

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MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE COMMUNICATION

TO: Sue Kaelber-Matlock, Senior Geologist
Remediation and Redevelopment Division (RRD)
Saginaw Bay District Office

FROM: Divinia N. Stemm, Ph.D.
Toxicology Unit, RRD

DATE: January 18, 2006

SUBJECT: Saginaw Malleable Iron (SMI) Plant Property and REALM, Inc.
Greenpoint Landfill and Drum Remediation Area
Human Health Evaluation (HHE) Addendum (9/23/2005)

I have conducted my review of the above document taking into consideration information that you have provided and documents on file with the Toxicology Unit. My comments follow:

Site-specific particulate soil inhalation criteria (PSIC) calculation for manganese (Mn)

1) The following comments and requests for additional information were made/requested by Jeff Crum, formerly of RRD, from Holli Jones of BBL (see communication dated 7/28/2003). The recommendations were not incorporated nor was the additional information provided. Moreover, Allan Brouillet has indicated in an 11/10/2003 communication to Jeff that the feasibility study will be approved with the caveat that General Motors provide the information needed to support their calculations as part of the draft Remedial Action Plan (RAP).

   a) The Michigan-specific defaults should be used to derive the particulate exposure factor (PEF). The use of an EPA-derived PEF (EPA, 2002) in the PSIC calculation for off-site residents is neither site- nor state-specific and should be revised.

   b) The PSIC and PEF calculations must be provided.

   c) Please have the consultants provide documentation for the factors other than the meteorological parameters which cause the site-specific Mn PSIC of 23,000 mg/kg (ppm) for off-site residential receptors and 24,019 ppm for the site production area to be significantly higher than the generic residential and industrial criteria (3,300 ppm and 1,500 ppm, respectively). The exposure variables for the off-site residents are the same as the DEQ assumptions.

2) The proposed site-specific PSIC for Mn have not been approved by the DEQ. The information requested by the RRD on how the site-specific criteria were derived for the off-site residents and the exposed workers has not been provided to the RRD.

3) Site-specific PSIC equation variables.

   a) When a site-specific criterion is calculated for a facility, site-specific assumptions must be used in place of the generic default assumptions and the equations presented in the Part 201 Administrative Rules must be used for the calculation (R 299.5710 to

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R 299.5726). Therefore, the SMI site-specific calculation must be revised based on the following considerations:

i) The short-term peaks in particulate levels must be considered in the calculation by dividing the PEF by a factor of 2. See explanation on pages 11-12 of the MDEQ Technical Support Document for Generic Soil Inhalation Criteria for Ambient Air (SIC-TSD).

ii) A site-specific PSIC calculation must consider the site-specific source size. The PEF used in the site-specific PSIC calculation was based on a 0.5 acre contaminant source area for Mn. For multiple source areas at a facility, it is assumed that the contaminant emitted from different source areas will commingle in ambient air and produce a concentration that is greater than the emission from a single source (SIC-TSD, pages 19-21, MDEQ Sampling Strategies and Statistics Training Manual (S3TM)). In this case, the final source size is the sum of the individual emission source areas at the facility.

iii) The use of the correctly modified PEF should result in a lower site-specific PSIC since there are 4 Mn sources at the facility.

iv) The adjusted air intake (AIR) used in the site-specific equation is not in the DEQ PSIC algorithm for non-carcinogens (R 299.5726(2)). Likewise, the EPA does not use the AIR in its PSIC calculation for non-carcinogens. The Toxicology Unit previously indicated that the use of the AIR may be appropriate for the worker scenario since the Mn reference concentration is based on continuous exposure while the worker exposures are not continuous (7/2/2003, DEQ memo). Although it is not clear that this parameter is appropriate, the use of AIR will be allowed for the worker scenario at this facility. We do however, caution against its use in the future for site-specific calculations of ambient air criteria for non-carcinogens.

v) The area utilization factor (AUF) in the PSIC equations (Appendix C of the 2003 final FS) should be removed as previously requested in a memo dated 3/5/2003. The AUF is not consistent with the Part 201 PSIC algorithms.

4) Receptor and exposure assumptions for the Mn PSIC.

a) The site-specific scenario for the construction worker is a 30-day single construction event [exposure frequency (EF)] for one year [exposure duration (ED)]. In comparison, the generic EF and ED are 245 days and 21 years, respectively. The main consideration for the construction worker during construction events is the intensive, substantial inhalation exposure to surface and subsurface soil contaminants due to excavation and extensive soil movement, loss of vegetative cover leading to increased emission due to wind erosion, and use of heavier vehicles and increased vehicle traffic producing much higher vehicle traffic particulate emissions. The site-specific PSIC should consider not only the EF but other site-specific factors especially the use of heavy vehicles during construction, current and future vegetative cover, and atmospheric variables in the derivation of the air dispersion factor to account for short-term peaks in air concentrations at the site.

b) Please have the consultant provide supporting documentation for the use of an EF of 30 days for a construction worker. The 30-day EF appears low. The exposure scenarios used for the DEQ generic criteria are based on "maximum reasonable exposures (RME)" in accordance with the EPA guidance. Site-specific exposure scenarios are also expected to represent RMEs.

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c) The PEF used in the generic residential PSIC calculation assumes that vehicles at the facility are mainly passenger; therefore, the residential criterion of 3,300 ppm should not be applied to an industrial or construction setting.

d) Maintenance workers should be included as receptors in the source areas that are categorized as production areas (former rail yard and metal feedstock storage areas).

e) Please have the consultant explain why the site-specific PSIC value for surface soil Mn is different from that for subsurface soil Mn in the non-production area (river berm).

5) Sampling and statistics.

a) Please have the consultant clarify the number of samples taken from each contaminated source area and indicate whether samples are surface or subsurface soil. Also have them identify the samples that were included in the 95% upper confidence limit (UCL) for the mean calculated for each source area (Appendix 1 of the HHE addendum). Note that only samples taken from the emission source area should be included in the 95% UCL calculation (SIC-TSD pages 20-21, S3TM).

b) Subsurface soil samples and surface soil samples should not be combined in calculating the 95% UCL for the emission source unless it is shown that there is little variability between these soil layers; i.e., they represent the same sample population.

c) The verification samples collected from the 3 berm areas where soil with high Mn concentrations was removed are considered biased samples and should be compared to the criterion on a point-by-point basis (S3TM Sections 1.3.3 and 2.3). These samples should not be included in the 95% UCL calculation.

d) Please have the consultant clarify or explain how they determined where and when to collect the subsurface samples from a source area. In general, the subsurface soils appear to have higher Mn concentrations than the surface soils. For example, subsequent sampling of the subsurface in the berm area after removal of contaminated surface soils showed high Mn concentrations (95% UCL = 6,964 ppm; maximum = 26,600 ppm).

e) In the HHE Addendum Appendix 1, pages 1 and 2, please have the consultant clarify the information in these tables. The titles do not match the UCL values shown in Tables 4-5 and 4-6.

Polychlorinated biphenyls (PCBs)

PCBs were not addressed in the HHE addendum except for the statement that soils in the river berm and rail yard areas were analyzed for PCBs. Based on information you provided, PCB contamination at the facility was evaluated for Toxic Substances Control Act (TSCA) applicability and is being addressed under Part 201; however, disposal of PCB contaminated soil was done in accordance with TSCA requirements. Please have the consultant indicate that TSCA was addressed where appropriate. The feasibility study as well as the RAP indicates PCB concentrations in soil as high as 650 ppm and 4,900 ppm at the manhole and melting department, respectively. The Part 201 industrial soil direct contact criterion for PCBs is 16 ppb. However, Table 2.1-1 of the RAP indicates a site-specific criterion of 60 mg/kg. This site-specific criterion was also used to evaluate PCBs in Tables 6- 2, 6-9, 6-12, and 6-15 of the feasibility study. The consultant must provide detailed documentation on how this criterion was derived.

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This ends my comments. Should you have any questions or concerns regarding this matter, please contact me at 517-241-8145, or at stemmd@michigan.gov.

cc: Brenda Brouillet, RRD
Christine Flaga, RRD
Toxicology Unit, RRD

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March 24, 2006

Mr. Allan Brouillet
Remediation and Redevelopment Division
Michigan Department of Environmental Quality
Saginaw Bay District
503 North Euclid Avenue
Bay City, MI 48706

Re: Human Health Risk Assessment – Revised Draft Remedial Action Plan
GM Saginaw Malleable Iron Plant Property, and REALM Green Point Landfill
Consent Judgment No. 98-22686-CE-2

Dear Mr. Brouillet:

This letter has been prepared on behalf of the General Motors Corporation (GM) and Waste Management Inc. (WMI) to provide responses to Michigan Department of Environmental Quality (MDEQ) comments on the Human Health Evaluation (HHE) (an attachment to the Feasibility Study [FS]) and the HHE Addendum (an attachment to the Remedial Action Plan [RAP]) presented in a January 18, 2006 memorandum from Ms. Divinia Stemm (MDEQ-RRD) to Ms. Susan Kaelber-Matlock (MDEQ-RRD). A meeting was held on February 22, 2006, between representatives of the MDEQ, GM, and WMI to discuss the comments. GM's understanding of the resolution of each comment, as discussed at the meeting, in addition to supplemental information requested to resolve several of the comments is provided below. Note that a list of relevant project correspondence dealing with the FS and the RAP was distributed at the meeting along with copies of the correspondence, as requested by the MDEQ. The correspondence list is provided in Attachment 1.

MDEQ Comment 1)

1) Site-specific particulate soil inhalation criteria (PSIC) calculation for manganese (Mn)
The following comments and requests for additional information were made/requested by Jeff Crum, formerly of RRD, from Holli Jones of BBL (see communication dated 7/28/2003). The recommendations were not incorporated nor was the additional information provided. Moreover, Allan Brouillet has indicated in an 11/10/2003 communication to Jeff that the feasibility study will be approved with the caveat that General Motors provide the information needed to support their calculations as part of the draft Remedial Action Plan (RAP).

Response

Based on review of the July 28, 2003 email sent from Jeff Crum to Christine Flaga, which was provided to GM at the February 26, 2006 meeting, Jeff Crum's comments primarily dealt with the evaluation of potential impacts to offsite residential receptors due to windblown dust from the Former Railyard. This exposure pathway was addressed in the HHE through the use of an EPA model due to the absence of MDEQ criteria that are applicable to this potential exposure route. As discussed below, an alternative

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evaluation has been completed using generic residential exposure parameters and a Particulate Emission Factor (PEF) that is representative of site conditions (specified in a deed restriction). Based on discussions at the February 22, 2006 meeting, GM believes that this approach is acceptable to the MDEQ.

The Former Railyard is considered a potential source for offsite migration of manganese dust. Comparison of the 95% UCL calculated for the Former Railyard (2,638 mg/kg) to the generic residential Particulate Soil Inhalation Criteria (PSIC equal to 2,000 mg/kg assuming a 9.5 acre source area) shows the concentration detected in the source area slightly exceeds the generic PSIC value, which assumes use of dirt roads in the future. However, deed restrictions are being implemented at the site as part of the RAP, which will limit dust generation by preventing the installation of dirt roadways in this area (the RAP specifies construction with 6-inches of gravel or pavement cover). The MDEQ derived generic residential exposure parameters have been used because the exposure parameters (exposure frequency of 350 days per year, exposure duration of 30 years and an averaging time of 10,650 days) are consistent for the adjacent residential population assumed to be exposed to windblown dust if dirt roads were used in this area of the site. If a PEF is calculated assuming 50% vegetation and no routine vehicular traffic on the 9.5 acres (reflecting the provisions of the deed restriction); the resulting site-specific PSIC for the residential population is 4,700 mg/kg. The 95% UCL for the source area (2,638 mg/kg) is less than the site-specific PSIC. As a result, there is no potential risk to offsite residential receptors.

MDEQ Comment 1a)

a) The Michigan-specific defaults should be used to derive the particulate exposure factor (PEF). The use of an EPA-derived PEF (EPA, 2002) in the PSIC calculation for off-site residents is neither site- nor state-specific and should be revised.

Response

The Michigan Particulate Exposure Factor (PEF) was used to calculate the PSIC for offsite residential receptors.

MDEQ Comment 1b)

b) The PSIC and PEF calculations must be provided.

Response

The updated calculations, reflecting a modifier due to the source size, are provided in Attachment 2. Note that the PSIC calculations used in the HHE were provided in Appendix A of the Feasibility Study. The PEF calculations were not included at that time, since MDEQ default values were used.

MDEQ Comment 1c)

c) Please have the consultants provide documentation for the factors other than the meteorological parameters which cause the site-specific Mn PSIC of 23,000 mg/kg (ppm) for off-site residential receptors and 24,019 ppm for the site production area to be significantly higher than the generic residential and industrial criteria (3,300 ppm and 1,500 ppm, respectively). The exposure variables for the off-site residents are the same as the DEQ assumptions.

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Response

The parameters used to derive the PSIC values are presented below. The PEF values used are MDEQ default values as presented in the technical support document dated August 31, 1998 (Part 201 Generic Soil Inhalation Criteria for Ambient Air).

$$\text{SSCC – PSIC (mg/kg)} = \frac{\text{TH x AT x 365dy/yr x AIR}}{\text{EF x ED x (1/RfC) x (1/PEF)}}$$

Where:

Site-Specific Industrial	Default - Industrial	
1	1	TH = Target Hazard Quotient (unitless; MDEQ default)
1 (construction worker)	21 (MDEQ default)	AT = Averaging Time
2 (construction worker)	NA	AIR = adjusted Inhalation Rate
30 (construction worker)	245(MDEQ default)	EF = Exposure Frequency
1 (construction worker)	21 (MDEQ default)	ED = Exposure
5E-05	5E-05	RfC (mg/m^3) = Reference Concentrations (USEPA, 2003)
1.97E+07* (MDEQ, 1998 TSD) assumes 18 acre source area	3.95E+07* (MDEQ, 1998 TSD)	PEF (m^3/kg) = Offsite particulate emission factor
12,000	1,500	SSCC (mg/kg) = Site-specific clean-up criteria

*The PEF is divided by 2 as discussed in the guidance to account for short-term peak particulate levels for all chemicals which are associated with quarterly, 24-hour, 8-hour, or 2-hour averaging times under the Air Toxics Rule.

The site conditions assumed in the derivation of the default PEF (e.g. 50 vehicles traveling 2.25 kilometers per day in the area) are likely to overestimate dust generation at the site. Currently, there is no routine truck traffic in the Former Railyard, and deed restrictions will prevent traffic generation of dust in the areas in question in the future. (More realistically, there will not be any vehicular traffic in the future in the areas in question.) The areas are currently vegetated, and this cover will be maintained as 50% or greater.

From the RAP:

> *V. Former Railyard Area*
> *In order to protect against the inhalation of hazardous substances present in surface soil, the vegetative cover will be maintained (minimum of 50 % coverage of soil surface), and roadways may not be installed unless properly constructed (at least 6 inches of gravel or pavement cover) in the former Railyard Area. Activities in this area of the Site are restricted to those consistent with current facility operations, including access by a maintenance worker who spends no more than 160 days, per any such worker per year, and an intrusive/construction worker who spends no more than 30 days, per any such worker per year, in the area. To implement activities in this area that are inconsistent with current facility operations, a Health and Safety Plan must be developed and followed or the activity must be approved by the MDEQ prior to implementation..*

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MDEQ Comment 2)

2) *The proposed site-specific PSIC for Mn have not been approved by the DEQ. The information requested by the RRD on how the site-specific criteria were derived for the off-site residents and the exposed workers has not been provided to the RRD.*

Response

Based on MDEQ comments and discussions with MDEQ on February 22, 2006, the USEPA model, which was the basis of the original site-specific criteria for offsite residents, is no longer being used by GM to evaluate potential impacts to offsite residents (refer to the response to Comment 1). The potential offsite hazards are discussed in the response to Comment 1. Additionally, information used to derive the PSIC for the exposed workers is provided in the response to Comment 1c.

MDEQ Comment 3ai)

3) *Site-specific PSIC equation variables.*

a) *When a site-specific criterion is calculated for a facility, site-specific assumptions must be used in place of the generic default assumptions and the equations presented in the Part 201 Administrative Rules must be used for the calculation (R 299.5710 to R 299.5726). Therefore, the SMI site-specific calculation must be revised based on the following considerations:*

i) *The short-term peaks in particulate levels must be considered in the calculation by dividing the PEF by a factor of 2. See explanation on pages 11-12 of the MDEQ Technical Support Document for Generic Soil Inhalation Criteria for Ambient Air (SIC-TSD).*

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Response

For the onsite worker, the default MDEQ PEF for an industrial exposure (3.95E+09 m^3/kg) was used. This value was divided by 2 to account for short-term peak particulate levels for all chemicals which are associated with quarterly, 24-hour, 8-hour, or 1-hour averaging times under the Air Toxics Rule. A factor of 2 was also applied to the PEF for the offsite receptor described in Comment 1.

However, application of the safety factor of 2 is unnecessary given the data used to derive the manganese reference concentrations. In a letter sent to Chris Flaga from John Schell (March 20, 2002), Dr. Schell outlines several technical issues that support the modification of the generic Mn IPSIC. One of the issues outlined in the letter was the unnecessary inclusion of the application of the 2-fold safety factor to protect against acute risks. Manganese is not acutely toxic and therefore this additional safety results in an overly conservative IPSIC.

MDEQ Comment 3aii)

ii) *A site-specific PSIC calculation must consider the site-specific source size. The PEF used in the site-specific PSIC calculation was based on a 0.5 acre contaminant source area for Mn. For multiple source areas at a facility, it is assumed that the contaminant emitted from different source areas will commingle in ambient air and produce a concentration that is greater than the emission from a single source (SIC-TSD, pages 19-21, MDEQ Sampling Strategies and Statistics Training Manual (S3TM)). In this case, the final source size is the sum of the individual emission source areas at the facility.*

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Response

The source sizes have been revised, in response to MDEQ's comments, to 9.5 acres for the Former Railyard Area and 18 acres for the combined Former Railyard Area and the Previous Metal Feedstock Area. The PSIC values have been revised accordingly.

MDEQ Comment 3aiii)

iii) The use of the correctly modified PEF should result in a lower site-specific PSIC since there are 4 Mn sources at the facility.

Response

As per our discussions on February 22, 2006, with MDEQ representatives, it was determined that there are two potentially relevant onsite sources of manganese, the Former Railyard Area and the Previous Metal Feedstock Area. The following table summarizes the revised SSCC if an 18 acre source area (combined Former Railyard Area and Previous Metal Feedstock Area) is considered.

	Site Concentration (mg/kg)	Maintenance Worker PSIC (mg/kg)	Construction (Intrusive) Worker PSIC (mg/kg)
Railyard Area	2,638 (95% UCL)	2,300*	12,000
Previous Metal Feedstock Area	6,140 (maximum)	2,300*	12,000
Former CTC Parking Lot East of the Main Plant	11,600 (maximum)	2,300*	12,000
Saginaw River Berm	1,779 (95% UCL)	2,300*	12,000

*Various deed restrictions prevent dust generation from vehicular traffic. The IPSIC assuming no vehicular traffic = 17,000 mg/kg.

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MDEQ Comment 3aiv)

iv) The adjusted air intake (AIR) used in the site-specific equation is not in the DEQ PSIC algorithm for non-carcinogens (R 299.5726(2)). Likewise, the EPA does not use the AIR in its PSIC calculation for non-carcinogens. The Toxicology Unit previously indicated that the use of the AIR may be appropriate for the worker scenario since the Mn reference concentration is based on continuous exposure while the worker exposures are not continuous (7/2/2003, DEQ memo). Although it is not clear that this parameter is appropriate, the use of AIR will be allowed for the worker scenario at this facility. We do however, caution against its use in the future for site-specific calculations of ambient air criteria for non-carcinogens.

Response

No action required.

MDEQ Comment 3av)

v) The area utilization factor (AUF) in the PSIC equations (Appendix C of the 2003 final FS) should be removed as previously requested in a memo dated 3/5/2003. The AUF is not consistent with the Part 201 PSIC algorithms.

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Response

Although the AUF term is still included in the equations in Appendix C of the HHE included in the FS, it is set to one and therefore, does not impact the calculations (it is essentially a placeholder). The different use patterns are incorporated into the exposure frequencies for each receptor in the production and non-production areas. This means that although the AUF terms are included in the tables, the calculation still assumes that each receptor spends 100% of the time exposed in the identified areas.

MDEQ Comment 4a)

4) Receptor and exposure assumptions for the Mn PSIC.

a) The site-specific scenario for the construction worker is a 30-day single construction event [exposure frequency (EF)] for one year [exposure duration (ED)]. In comparison, the generic EF and ED are 245 days and 21 years, respectively. The main consideration for the construction worker during construction events is the intensive, substantial inhalation exposure to surface and subsurface soil contaminants due to excavation and extensive soil movement, loss of vegetative cover leading to increased emission due to wind erosion, and use of heavier vehicles and increased vehicle traffic producing much higher vehicle traffic particulate emissions. The site-specific PSIC should consider not only the EF but other site-specific factors especially the use of heavy vehicles during construction, current and future vegetative cover, and atmospheric variables in the derivation of the air dispersion factor to account for short-term peaks in air concentrations at the site.

Response

The exposure frequency of 30 days per year for the construction worker (or more correctly an intrusive worker) was based on professional judgment. This receptor is assumed to be a short term contractor and not a GM employee. We agree with MDEQ's statement that other factors should be considered for this receptor, an individual exposed at a high intensity for a short period of time. This was accomplished by using exposure parameters (consistent with the USEPA (2001) construction worker scenario), that reflect this type of activity (e.g., soil ingestion rate of 330 mg/day, a surface area of 3300 cm^2, and a skin to soil adherence factor of 0.3 mg/cm^2-event).

MDEQ Comment 4b)

b) Please have the consultant provide supporting documentation for the use of an EF of 30 days for a construction worker. The 30-day EF appears low. The exposure scenarios used for the DEQ generic criteria are based on "maximum reasonable exposures (RME)" in accordance with the EPA guidance. Site-specific exposure scenarios are also expected to represent RMEs.

Response

The exposure frequency of 30 days per year for the construction worker (worker could also be designated as an intrusive worker) was based on professional judgment, assuming intrusive activities last 6 weeks, 5 days per week. This receptor is assumed to be a short term contractor and not a GM employee. This value was presented in a memo to Chris Flaga from John Schell dated March 27, 2003 (sent via email). After discussing this exposure scenario at our February 22, 2006, meeting, we believe that we reached concurrence on this approach.

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MDEQ Comment 4c)

c) *The PEF used in the generic residential PSIC calculation assumes that vehicles at the facility are mainly passenger; therefore, the residential criterion of 3,300 ppm should not be applied to an industrial or construction setting.*

Response

The residential criterion of 3,300 ppm was only used when trying to determine if offsite conditions were acceptable. It is understood that the PEF for the residential value assumes vehicles at the facility are mainly passenger, however, the area of the site in question here, the Former Railyard Area, is not expected to have any traffic in the normal course of daily activities. Additionally, 3,300 ppm was only used to conservatively determine the potential risks offsite (where it could be assumed that the dust being generated onsite has dispersed somewhat before reaching the receptors). Additionally, the generic value has been adjusted to reflect the 9.5 acre source area. The resulting value is 2,000 mg/kg.

MDEQ Comment 4d)

d) *Maintenance workers should be included as receptors in the source areas that are categorized as production areas (former rail yard and metal feedstock storage areas).*

Response

This is inconsistent with the original site conceptual model presented for the site. However, as discussed in the HHE addendum in the RAP, changes in some of the site usage (e.g. the Railyard is no longer active) required comparison of site conditions of some of the source areas to the values derived for the maintenance workers (specifically the Former Railyard and the Previous Metal Feedstock Area). The following is language contained in the Human Health Evaluation:

> **Maintenance Worker**: This receptor was selected to specifically evaluate *outdoor* exposures. This individual spends most of the workday conducting maintenance activities outdoors. These activities include, but are not limited to mowing grass and inspecting the landfills. Occasionally this individual may be involved in emergency type activities (i.e. utility line repair) that would require him to be engaged in intrusive type work which may result in exposure to surface and subsurface soils, and non-potable groundwater. This receptor is the only one that will consistently contact soil in the non-production area. Because this individual represents the most heavily, chronically exposed individual for the non-production area, the risk based values developed for this receptor will be conservative and protective of other receptors potentially exposed in this area.
>
> **Construction Worker (or more correctly an intrusive worker)**: This receptor was selected to specifically evaluate potential high contact activity to subsurface soil and non-potable groundwater. This individual is involved in certain land intrusive activities at the facility, which may result in exposure to surface soils, subsurface soils, and non-potable groundwater associated with the non-production area. However, exposure for these individuals will be relatively short in duration, and this person is unlikely to be a site employee. As a highly conservative assumption, this worker is assumed to never be indoors.

The revised site IPSIC concentrations are compared with the site data in the table presented in the response to Comment 3aiii. Other than described, we still do not believe it is appropriate to use maintenance workers as receptors in the other remaining production areas.

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MDEQ Comment 4e)

e) Please have the consultant explain why the site-specific PSIC value for surface soil Mn is different from that for subsurface soil Mn in the non-production area (river berm).

Response

The surface exposure is derived for the maintenance worker, who is assumed to contact only surface soil. Occasionally this individual may be involved in emergency type activities (i.e. utility line repair) that would require him to be engaged in intrusive type work (5 events per year) which may result in exposure to surface and subsurface soils, and non-potable groundwater. The intrusive worker (formerly referred to as a construction worker) is assumed to be exposed to both surface and subsurface soils.

MDEQ Comment 5a)

5) Sampling and statistics.

a) Please have the consultant clarify the number of samples taken from each contaminated source area and indicate whether samples are surface or subsurface soil. Also have them identify the samples that were included in the 95% upper confidence limit (UCL) for the mean calculated for each source area (Appendix I of the HHE addendum). Note that only samples taken from the emission source area should be included in the 95% UCL calculation (SIC-TSD pages 20-21, S3TM).

Response

Site Area	Number of Manganese Soil Samples	Surface or Subsurface	IDs of Samples Used to Determine Exposure Point Concentration	Exposure Point Concentration
Railyard	17	Surface	RS-1 through RS-4, RS-6 through RS-18 (all samples collected from 0-1 foot depths)	2,638 mg/kg[2]
Former CTC Parking Lot	4	Surface (below soil cover)	PL-1 through PL-4 (collected below paving that has been replaced by soil cover)	11,600 mg/kg[1]
Previous Metal Feedstock Area	10	Surface	FS-1 through FS-8, SB-304, and SB-305 (all samples collected from 0-1 foot depths)	6,140 mg/kg[1]
	4	Subsurface	SB-304 and SB-305 (2-4 foot and 6-8 foot sample depths)	9,190 mg/kg[1]
Saginaw River Boundary	26	Surface	SB-378 (4 samples at 0-1 foot depth at excavation walls), SB-379 (0-0.5 and 0.5-1 foot sample depths), SB-380 (3 samples at 0-1 foot depth at excavation walls), SB-381(3 samples at 0-1 foot depth at excavation walls), SB-382 through SB-388 (0-0.5 and 0.5-1 foot sample depths).	1,779 mg/kg[2]
	37	Combined Surface and Subsurface	Surface samples listed above plus MW-183WT (8-9.5 foot depth), SB-374 (9.5 -10.5 foot depth), SB-375 (6.5-7.5 foot depth), SB-377 (2-2.5 and 2.5-3 foot depth), SB-378 (3 samples at 2-3 foot depth at excavation walls and floor), SB-380	6,964 mg/kg[2]

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Site Area	Number of Manganese Soil Samples	Surface or Subsurface	IDs of Samples Used to Determine Exposure Point Concentration	Exposure Point Concentration
			(2 samples at 2-3 foot depth from excavation floor), and SB-381 (2 foot depth from excavation floor)	

Notes:
1 = Maximum detected concentration.
2 = 95% UCL concentration.

Note that in preparation of this table it was determined that two surface soil samples (SB-304 and SB-305) had been inadvertently excluded from the 95% UCL calculations presented in the HHE (July 29, 2003). As a result, the correct exposure point concentration is equal to the maximum concentration detected. To ensure protection of human health, the deed restriction proposed in the draft RAP, which places restrictions on intrusive activities in this area, will be modified to also prevent the construction of dirt roadways (6 inches of gravel or paving will be required).

MDEQ Comment 5b)

b) Subsurface soil samples and surface soil samples should not be combined in calculating the 95% UCL for the emission source unless it is shown that there is little variability between these soil layers; i.e., they represent the same sample population.

Response

Regardless of the sample population used to calculate the 95% UCL for the River Berm Area, a deed restriction is included in the RAP, which provides for the maintenance of a vegetative cover (minimum of 50% coverage), prevents the installation of dirt roadways (a minimum of 6-inches of gravel or pavement cover is required), and restricts activities that are not consistent with current facility operations.

MDEQ Comment 5c)

c) The verification samples collected from the 3 berm areas where soil with high Mn concentrations was removed are considered biased samples and should be compared to the criterion on a point-by-point basis (S3TM Sections 1.3.3 and 2.3). These samples should not be included in the 95% UCL calculation.

Response

This concern is being addressed by a deed restriction.

MDEQ Comment 5d)

d) Please have the consultant clarify or explain how they determined where and when to collect the subsurface samples from a source area. In general, the subsurface soils appear to have higher Mn concentrations than the surface soils. For example, subsequent sampling of the subsurface in the berm area after removal of contaminated surface soils showed high Mn concentrations (95% UCL = 6,964 ppm; maximum = 26,600 ppm).

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Response

The initial site soil sampling program is described in the RI/FS Work Plan, and all sampling locations have been selected in coordination with the MDEQ. In the river berm area, subsurface samples were collected following completion of a limited soil excavation program to determine if the excavation had successfully removed soils containing elevated manganese concentrations. In response to the detection of elevated manganese concentrations in the subsurface samples, the area is being addressed by a deed restriction.

MDEQ Comment 5e)

e) In the HHE Addendum Appendix 1, pages 1 and 2, please have the consultant clarify the information in these tables. The titles do not match the UCL values shown in Tables 4-5 and 4-6.

Response

The table headings have been revised, and the tables are provided as Attachment 3.

MDEQ Comment regarding PCBs

Polychlorinated biphenyls (PCBs)
PCBs were not addressed in the HHE addendum except for the statement that soils in the river berm and rail yard areas were analyzed for PCBs. Based on information you provided, PCB contamination at the facility was evaluated for Toxic Substances Control Act (TSCA) applicability and is being addressed under Part 201; however, disposal of PCB contaminated soil was done in accordance with TSCA requirements. Please have the consultant indicate that TSCA was addressed where appropriate. The feasibility study as well as the RAP indicates PCB concentrations in soil as high as 650 ppm and 4,900 ppm at the manhole and melting department, respectively. The Part 201 industrial soil direct contact criterion for PCBs is 16 ppb. However, Table 2.1-1 of the RAP indicates a site-specific criterion of 60 mg/kg. This site-specific criterion was also used to evaluate PCBs in Tables 6-2, 6-9, 6-12, and 6-15 of the feasibility study. The consultant must provide detailed documentation on how this criterion was derived.

Response

In general, the applicability of TSCA to a specific activity or issue is assessed according to the circumstances of that activity or issue. For example, offsite disposal of soil containing PCB concentrations greater than 50 mg/kg needs to be managed at a TSCA permitted or approved facility. GM has and will continue to manage any TSCA regulated soils that are to disposed of offsite, in accordance with TSCA.

The I27.7 area (manhole area referenced in the MDEQ comment) is located in the Foundry Department. PCB-containing oil leaked from a dropped transformer in 1971, and collected in a small area of exposed soil around a structural support column. The exposed soil was covered with concrete in 1972. The extent of PCB impacted soil was investigated and addressed under 201, as described in a report titled *Feasibility Analysis* (CRA, May 1998) and is from a release prior to TSCA.

Various areas within the Melting Department at the SMI Plant have been remediated due to the presence of PCBs. The activities completed in this area of the site are discussed in a letter and attached report titled *Melting Department Area Investigation and Remediation Report* (CRA, April 1997). The letter and report were sent from GM to the MDEQ and the Wastes, Pesticides, and Toxics Division of the U.S.

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Environmental Protection Agency on April 14, 1997. The Melting Department includes furnaces used to melt scrap metal to be incorporated into new parts, and related system components that include tilt units, furnace pits, dedicated hydraulic systems and control rooms, a dedicated electrical system, standby generator rooms, and a utility tunnel (BUSS tunnel). As described in the April 14, 1997 letter and associated report, the remedial efforts in the Melting Department were completed consistent with the TSCA regulations.

The derivation of the SSCC of 60 ppm (industrial soil direct contact) is contained in the HHE included in the Feasibility Study. The HHE addendum in the RAP just addressed areas where new data had been collected (e.g., railyard area) or site conditions had changed (e.g., former CTC parking lot).

Please feel free to contact Cheryl Hiatt at 248-753-5799 if you have additional concerns or questions regarding these responses.

Sincerely,

BLASLAND, BOUCK & LEE, INC.

John D. Schell, Jr., Ph.D.
Vice President/Toxicologist

HDJ/plf
Enclosures: 3

cc: Ms. Susan Kaelber-Matlock, MDEQ
Ms. Divinia Stemm, Ph.D., MDEQ
John Fordell Leone, Esq., DAG
Ms. Cheryl Hiatt, GM
Mr. Edward Peterson, GM
Anthony Thrubis, Esq., GM
Mr. Kent Bainbridge, WMI
Ms. Rachel Schneider, Attorney at Law, Quarles & Brady
Ms. Holli Jones, BBL
Ms. Lisa Coffey, BBL

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Correspondence Regarding FS Report and RAP

GM SMI Plant Property, and REALM Inc. Green Point Landfill and Drum Remediation Area

I. Feasibility Study

January 3, 2002 - DRAFT FS submitted to MDEQ

BBL, January 2002. *Draft Feasibility Study Report*, General Motors Corporation Saginaw Malleable Iron Plant Property and REALM Inc. Green Point Landfill and Drum Remediation Area, January 2002.

March 20, 2002 – Letter to MDEQ presenting a proposal to modify the Industrial Particulate Inhalation Criteria for Mn.

John Schell (BBL), March 20, 2002. Letter to Christine Flaga (MDEQ), Subject: Application for revision of the Industrial Particulate Inhalation Criteria for manganese.

June 19, 2002 – Letter from MDEQ to GM with comments on draft FS; primarily dealing with the HHE.

Brouillet, Brenda J. (MDEQ), June 19, 2002. Letter to Joe Medved (GM), Subject: Draft Feasibility Study, Greenpoint Landfill/General Motors Saginaw Malleable Iron Facility Consent Decree No 98-22686-CE-2.

October 30, 2002 – Meeting between MDEQ, GM, WMI, and BBL to discuss MDEQ's comments on the draft Human Health Evaluation. Agreement was reached on the approach to be taken in response to the majority of the comments. For several comments MDEQ requested written clarification to facilitate their review. A letter dated November 26, 2002 (see below) was sent from BBL to MDEQ documenting the meeting discussions and providing additional information.

November 26, 2002 – Letter from BBL to MDEQ providing documentation of discussions held at the October 30, 2002 meeting, and providing additional requested information.

Schell, John (BBL), November 26, 2002. Letter to Rochelle Inglis (MDEQ), Subject: proposed resolution of MDEQ comments on HHE.

December 12, 2002 – Letter from BBL to MDEQ providing additional information to support the proposed soil ingestion rate of 35 mg/day. The apparently is a follow-up to a December 10 phone conversation between the above parties.

Jones, Holli (BBL), December 12, 2002. Letter to Rochelle Inglis (MDEQ), Subject: Additional information to support soil ingestion rate of 35 mg/day.

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Correspondence Regarding FS Report and RAP

GM SMI Plant Property, and REALM Inc. Green Point Landfill and Drum Remediation Area

December 19, 2002 - Email from Rochelle Inglis (MDEQ) to Holli Jones (BBL) rejecting the proposed soil ingestion rate of 35 mg/day for the production worker, and recommending a rate of 100 mg/day, December 19, 2002.

January 29, 2003 – Letter to MDEQ providing formal responses to MDEQ's comments on the draft FS that were contained in a June 19, 2002 letter from MDEQ.

Schell, John (BBL), January 29, 2003. Letter to Brenda Brouillet (MDEQ), Subject: Responses to MDEQ comments on draft FS.

March 5, 2003 – Memo from Rochelle Inglis (MDEQ) to Sue Kaelber-Matlock (MDEQ) providing comments on the "Human Health Evaluation Report, Final (January 2003)" ?

March 26, 2003 - Email from Christine Flaga (MDEQ) to John Schell (BBL) documenting their telephone conversation regarding the worker soil ingestion rate and area utilization factor.

March 27, 2003 - Memo from John Schell and Holli Jones (BBL) to Chris Flaga and Rochelle Inglis (MDEQ) providing the information requested by Chris Flaga in her March 26, 2003 email.

June 3, 3003 – Revised Human Health Evaluation (showing edits in track changes) sent from Lisa Coffey (BBL) to Rochelle Inglis and Christine Flaga (MDEQ) by email.

July 2, 2003 (forwarded via email on July 16, 2003, from Christine Flaga (MDEQ) to Holli Jones (BBL)) - Memo from Rochelle Inglis (MDEQ) to Sue Kaelber-Matlock (MDEQ) that provides comments on the June 3, 2003, Revised Draft Human Health Evaluation.

July 21, 2003 - Memo from Holli Jones (BBL) to Chris Flaga (MDEQ), documenting the development of an exposure scenario to address fugitive dust emissions from the Site (transmitted attached to July 22, 2003 email from Lisa Coffey (BBL). [Also sent to Jeff Crum by Holli Jones as a draft]

July 29, 2003 - Final Feasibility Study (FS) submitted to MDEQ

BBL, July 29, 2003. *Final Feasibility Study Report*, General Motors Corporation Saginaw Malleable Iron Plant Property and REALM Inc. Green Point Landfill and Drum Remediation Area.

November 18, 2003 – Letter from Brenda Brouillet to Cheryl Hiatt conditionally approving the Final Feasibility Study Report.

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Correspondence Regarding FS Report and RAP

GM SMI Plant Property, and REALM Inc. Green Point Landfill and Drum Remediation Area

Brouillet, Brenda (MDEQ), November 18, 2003. Letter to Cheryl Hiatt (GM), Subject: Conditional approval of Feasibility Study Report.

December 15, 2003 - Memo Documenting November 10, 2003 telephone conversation between Rochelle Inglis (MDEQ) and Holli Jones (BBL) discussing use of USEPA PEF for particulate Mn for off-site residents.

Jones, Holli (BBL), December 15, 2003. Memo to Rochelle Inglis (MDEQ), Subject: Use of USEPA default PEF for Mn to evaluate potential off-site residential exposure and request for confirmation that remaining HHE concerns have been addressed.

II. Remedial Action Plan

June 17, 2004 - Draft Remedial Action Plan (RAP) submitted to MDEQ

BBL, June 17, 2004. *DRAFT Remedial Action Plan*, General Motors Corporation Saginaw Malleable Iron Plant Property and REALM Inc. Green Point Landfill and Drum Remediation Area.

December 7, 2004 - MDEQ RAP Comment Letter

Brouillet, Brenda J. (MDEQ), December 7, 2004. Letter to GM, Subject: *Comments on Draft RAP; and comments of FS ecological assessment provided in attached October 29, 2004 memo from Hector Galbraith (GES).*

February 10, 2005 - Meeting between MDEQ, GM, WMI, EXPONENT, and BBL to discuss December 7, 2004 MDEQ Comment Letter; All comments discussed and tentatively resolved with exception of Ecological Issues. A second meeting is needed with Hector Galbraith (GES) present to discuss his comments on ecological assessment.

May 19, 2005 - Meeting between MDEQ, GES (MDEQ's Ecological Consultant), GM, WMI, EXPONENT, and BBL to discuss ecological assessment.

September 23, 2005 - Revised Draft RAP submitted to MDEQ

BBL, September 23, 2005. *DRAFT Remedial Action Plan*, General Motors Corporation Saginaw Malleable Iron Plant Property and REALM Inc. Green Point Landfill and Drum Remediation Area.

January 18, 2006 - MDEQ Comments on HHE Addendum (Forwarded by Sue Kaelber-Matlock by email on January 30, 2006)

Stemm, Divinia (MDEQ), January 2006. Memo to Sue Kaelber-Matlock (MDEQ), Subject: Comments on HHE addendum and HHE, January 18, 2006.

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MDEQ-RRD PSIC Calculation
GM Saginaw Malleable
February, 2006
By: Dr. Divinia Stemm, modified by H. Jones

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GM-SMI estimated source areas for offsite:

	square feet	
Metal feedstock		
Railyard	9.5 scres	**acres**
Total area (all sources)		**acres**

Modifier for 9.5 acres (Former railyard): **0.60**

A. Part 201 Generic PSIC	**=(THQ*ED*365)/(EF*ED*(1/RfC)*(1/(PEF/2)**	**Assumptions/Comments**
residential	=(1*30*365)/(350*30*(1/0.00005)*(1/(**128000000/2**)))	**for a 0.5 acre PEF =** 1.28E+08
	3,338 mg/kg ***approx 3,300***	
industrial	***generic calculation***	**for a 0.5 acre PEF =** 3.95E+07
	=(1*21*365)/(245*21*(1/0.00005)*(1/(**39500000/2**)))	
	1,471 mg/kg **approx 1,500**	

B. Site-specific calculation (for Saginaw Malleable):

SMI site-specific PSIC	**=(THQ*ED*365)/(EF*ED*(1/RfC)*(1/(PEF)**	
Corrected residential PSIC:	=((1*30*365)/(350*30*(1/0.00005)*(1/(**128000000/2**))))*0.6	**assuming railyard size is ~10 acres**
	2,003	
Corrected residential PSIC:	=((1*30*365)/(350*30*(1/0.00005)*(**1/(299000000/2**))))*0.6	**assuming railyard size is ~10 acres**
Assuming no vehicular traffic	**4,683**	

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Part 201 Particulate Emission Factor (PEF) Calculation and Assumptions

=(Q/C)*(1/((Ew*(1-V))+Ev)
=82.33*1/((0.00000055*(1-0.5))+0.00000181)
1.28E+08 **for residential**
3.95E+07 **for industrial**

--based on Michigan sites; 50% vegetation cover; 0.5 acre source size

where:

Dispersion factor (Q/C) =	**82.33**	g/m^2-s per kg/m^3	--based on Michigan sites; 0.5 acre source size
Emission due to wind (Ew) =	5.50E-07	g/m^2-s	--default vegetation cover is 50%; based on a 0.5 acre source size
Emission due to vehicle traffic (res) (Ev) =	3.68E-07	g/m^2-s	
Emission due to vehicle traffic (ind) (Ev) =	1.81E-06	g/m^2-s	
Vegetation cover (V) =	50%		

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MDEQ-RRD PSIC Calculation
GM Saginaw Malleable
February, 2006
By: Dr. Divinia Stemm, modified by H. Jones

GM-SMI estimated source areas:

	square feet	
Metal feedstock	[redacted]	**8.6**
Railyard		**9.5 acres**
Total area (all sources)		**18.1 acres**
Modifier for 18.1 acres (total source area):	**0.50**	
Modifier for 9.5 acres (Former railyard):	**0.60**	

A. Part 201 Generic PSIC =(THQ*ED*365)/(EF*ED*(1/RfC)*(1/(PEF/2) — **Assumptions/Comments**

residential =(1*30*365)/(350*30*(1/0.00005)*(1/(**128000000/2**)))
3,338 mg/kg ***approx 3,300*** — **for a 0.5 acre PEF =** 1.28E+08

industrial ***generic calculation***
=(1*21*365)/(245*21*(1/0.00005)*(1/(**39500000/2**)))
1,471 mg/kg **approx 1,500** — **for a 0.5 acre PEF =** 3.95E+07

B. Site-specific calculation (for Saginaw Malleable):

SMI site-specific PSIC =(THQ*ED*365)/(EF*ED*(1/RfC)*(1/(PEF)

Corrected residential PSIC: =((1*30*365)/(350*30*(1/0.00005)*(1/(**128000000/2**))))*0.6 — **assuming railyard size is 10 acres**
2,002

Non-production area PSIC =(1*21*365*2)/(160*21*(1/0.00005)*(1/(**39500000/2**))) — **for 0.5 acre; using MDEQ factors except EF is 160 days**
(6/3/03 HHE) **4,505**
Corrected non-production PSIC **1,126** — **for a 18 acre source area and without use of AIR**
2,253 maintenance worker — **for a 18 acre source area and with use of AIR**

Production area PSIC =(1*1*365*2)/(30*1*(1/0.00005)*(1/(**39500000/2**))) — **for 0.5 acre; Construction worker EF=30 days and ED=one year**
(6/3/03 HHE) **24,029** — **used an adjusted intake rate of 2 in the numerator**
Corrected production PSIC **6,007** — **for a 18 acre source area and without use of AIR**
construction worker **12,015** intrusive worker — **for a 18 acre source area and with use of AIR**

Part 201 Particulate Emission Factor (PEF) Calculation and Assumptions

=(Q/C)*(1/((Ew*(1-V))+Ev)
=82.33*1/((0.00000055*(1-0.5))+0.00000181) — --based on Michigan sites; 50% vegetation cover; 0.5 acre source size
1.28E+08 **for residential**
3.95E+07 **for industrial** 1.97E+07

where:

Dispersion factor (Q/C) =	**82.33**	g/m^2-s per kg/m^3	--based on Michigan sites; 0.5 acre source size
Emission due to wind (Ew) =	5.50E-07	g/m^2-s	--default vegetation cover is 50%; based on a 0.5 acre source size
Emission due to vehicle traffic (res) (Ev) =	3.68E-07	g/m^2-s	
Emission due to vehicle traffic (ind) (Ev) =	1.81E-06	g/m^2-s	
Vegetation cover (V) =	50%		

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MDEQ-RRD PSIC Calculation
GM Saginaw Malleable
February, 2006
By: Dr. Divinia Stemm Modified by H. Jones

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GM-SMI estimated source areas:

	square feet	
Metal feedstock	[redacted]	**8.6**
Railyard		**9.5 acres**
Total area (all sources)		**18.1 acres**
Modifier for 18.1 acres (total source area):		**0.50**
Modifier for 9.5 acres (Former railyard):		**0.60**

A. Part 201 Generic PSIC	**=(THQ*ED*365)/(EF*ED*(1/RfC)*(1/(PEF/2)**	**Assumptions/Comments**
residential	=(1*30*365)/(350*30*(1/0.00005)*(1/(128000000/2)))	**for a 0.5 acre PEF =** 1.28E+08
	3,338 mg/kg ***approx 3,300***	
industrial	***generic calculation***	**for a 0.5 acre PEF =** 3.95E+07
	=(1*21*365)/(245*21*(1/0.00005)*(1/(39500000/2)))	
	1,471 mg/kg **approx 1,500**	

B. Site-specific calculation (for Saginaw Malleable):

SMI site-specific PSIC	**=(THQ*ED*365)/(EF*ED*(1/RfC)*(1/(PEF)**	
Corrected residential PSIC:	=((1*30*365)/(350*30*(1/0.00005)*(1/(128000000/2))))*0.6	**assuming railyard size is 10 acres**
	2,002	
Corrected residential PSIC:	=((1*30*365)/(350*30*(1/0.00005)*(1/(299000000/2))))*0.6	**assuming railyard size is 10 acres**
Assuming no vehicular traffic	**4,683**	
Non-production area PSIC	=(1*21*365*2)/(160*21*(1/0.00005)*(1/(39500000/2)))	**for 0.5 acre; using MDEQ factors except EF is 160 days**
(6/3/03 HHE)	**4,505**	
Corrected non-production PSIC	**1,126**	**for a 18 acre source area and without use of AIR**
	2,253 maintenance worker	**for a 18 acre source area and with use of AIR**
Non-production area PSIC	=(1*21*365*2)/(160*21*(1/0.00005)*(1/(299000000/2)))	**for 0.5 acre; using MDEQ factors except EF is 160 days**
(assuming no vehicular traffic)	**34,148**	
Corrected non-production PSIC	**8,537**	**for a 18 acre source area and without use of AIR**
	17,074 maintenance worker	**for a 18 acre source area and with use of AIR**
Production area PSIC	=(1*1*365*2)/(30*1*(1/0.00005)*(1/(39500000/2)))	**for 0.5 acre; Construction worker EF=30 days and ED=one year**
(6/3/03 HHE)	**24,029**	**used an adjusted intake rate of 2 in the numerator**
Corrected production PSIC	**6,007**	**for a 18 acre source area and without use of AIR**
construction worker	**12,015** intrusive worker	**for a 18 acre source area and with use of AIR**

Part 201 Particulate Emission Factor (PEF) Calculation and Assumptions

=(Q/C)*(1/((Ew*(1-V))+Ev)
=82.33*1/((0.00000055*(1-0.5))+0.00000181)
1.28E+08 **for residential** --based on Michigan sites; 50% vegetation cover; 0.5 acre source size
3.95E+07 **for industrial** 1.97E+07

where:

Dispersion factor (Q/C) =	**82.33**	g/m^2-s per kg/m^3	--based on Michigan sites; 0.5 acre source size
Emission due to wind (Ew) =	5.50E-07	g/m^2-s	--default vegetation cover is 50%; based on a 0.5 acre source size
Emission due to vehicle traffic (res) (Ev) =	3.68E-07	g/m^2-s	
Emission due to vehicle traffic (ind) (Ev) =	1.81E-06	g/m^2-s	
Vegetation cover (V) =	50%		

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APPENDIX 1
FORMER RAILYARD - MANGANESE (SURFACE)

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Data File	C:\ProUCL\lisaMndata.xls		Variable:	Mn		
Raw Statistics			Normal Distribution Test			
Number of Valid Samples	17		Shapiro-Wilk Test Statistic			0.898694
Number of Unique Samples	17		Shapiro-Wilk 5% Critical Value			0.892
Minimum	25		Data are normal at 5% significance level			
Maximum	5470					
Mean	1945.147		95% UCL (Assuming Normal Distribution)			
Median	1945		**Student's-t UCL**			**2638.166**
Standard Deviation	1636.645					
Variance	2678608		Gamma Distribution Test			
Coefficient of Variation	0.841399		A-D Test Statistic			0.305956
Skewness	0.910686		A-D 5% Critical Value			0.76416
			K-S Test Statistic			0.15618
Gamma Statistics			K-S 5% Critical Value			0.214707
k hat	1.088569		Data follow gamma distribution			
k star (bias corrected)	0.935685		at 5% significance level			
Theta hat	1786.884					
Theta star	2078.849		95% UCLs (Assuming Gamma Distribution)			
nu hat	37.01136		Approximate Gamma UCL			3106.198
nu star	31.81328		Adjusted Gamma UCL			3267.484
Approx.Chi Square Value (.05)	19.92194					
Adjusted Level of Significance	0.03461		Lognormal Distribution Test			
Adjusted Chi Square Value	18.93858		Shapiro-Wilk Test Statistic			0.871541
			Shapiro-Wilk 5% Critical Value			0.892
Log-transformed Statistics			Data not lognormal at 5% significance level			
Minimum of log data	3.218876					
Maximum of log data	8.607034		95% UCLs (Assuming Lognormal Distribution)			
Mean of log data	7.047967		95% H-UCL			8154.78
Standard Deviation of log data	1.331596		95% Chebyshev (MVUE) UCL			6697.245
Variance of log data	1.773148		97.5% Chebyshev (MVUE) UCL			8487.754
			99% Chebyshev (MVUE) UCL			12004.86
			95% Non-parametric UCLs			
			CLT UCL			2598.063
			Adj-CLT UCL (Adjusted for skewness)			2691.745
			Mod-t UCL (Adjusted for skewness)			2652.779
			Jackknife UCL			2638.166
			Standard Bootstrap UCL			2578.148
			Bootstrap-t UCL			2814.677
RECOMMENDATION			Hall's Bootstrap UCL			2751.148
Data are normal (0.05)			Percentile Bootstrap UCL			2593.471
			BCA Bootstrap UCL			2919.912
Use Student's-t UCL			95% Chebyshev (Mean, Sd) UCL			3675.389
			97.5% Chebyshev (Mean, Sd) UCL			4424.067
			99% Chebyshev (Mean, Sd) UCL			5894.698

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APPENDIX 1
SAGINAW RIVER BOUNDARY BERM - MANGANESE (SURFACE AND SUBSURFACE)

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Data File	C:\ProUCL\surf-sub.xls	Variable:	Mn -River Berm surface & subsurface
Raw Statistics		Normal Distribution Test	
Number of Valid Samples	37	Shapiro-Wilk Test Statistic	0.585668
Number of Unique Samples	37	Shapiro-Wilk 5% Critical Value	0.936
Minimum	156	Data not normal at 5% significance level	
Maximum	26600		
Mean	3782.676	95% UCL (Assuming Normal Distribution)	
Median	1180	Student's-t UCL	5554.782
Standard Deviation	6384.718		
Variance	40764627	Gamma Distribution Test	
Coefficient of Variation	1.687884	A-D Test Statistic	2.023403
Skewness	2.432017	A-D 5% Critical Value	0.800631
		K-S Test Statistic	0.198037
Gamma Statistics		K-S 5% Critical Value	0.15203
k hat	0.62283	Data do not follow gamma distribution	
k star (bias corrected)	0.590348	at 5% significance level	
Theta hat	6073.372		
Theta star	6407.536	95% UCLs (Assuming Gamma Distribution)	
nu hat	46.08939	Approximate Gamma UCL	5596.692
nu star	43.68575	Adjusted Gamma UCL	5694.324
Approx.Chi Square Value (.05)	29.5262		
Adjusted Level of Significance	0.0431	Lognormal Distribution Test	
Adjusted Chi Square Value	29.01995	Shapiro-Wilk Test Statistic	0.946619
		Shapiro-Wilk 5% Critical Value	0.936
Log-transformed Statistics		Data are lognormal at 5% significance level	
Minimum of log data	5.049856		
Maximum of log data	10.18867	95% UCLs (Assuming Lognormal Distribution)	
Mean of log data	7.251558	**95% H-UCL**	**6964.112**
Standard Deviation of log data	1.374235	95% Chebyshev (MVUE) UCL	7754.936
Variance of log data	1.888523	97.5% Chebyshev (MVUE) UCL	9612.881
		99% Chebyshev (MVUE) UCL	13262.45
		95% Non-parametric UCLs	
		CLT UCL	5509.182
		Adj-CLT UCL (Adjusted for skewness)	5957.604
		Mod-t UCL (Adjusted for skewness)	5624.727
		Jackknife UCL	5554.782
		Standard Bootstrap UCL	5439.9
		Bootstrap-t UCL	6238.977
RECOMMENDATION		Hall's Bootstrap UCL	5721.448
Data are lognormal (0.05)		Percentile Bootstrap UCL	5661.108
		BCA Bootstrap UCL	6646.797
Use H-UCL		95% Chebyshev (Mean, Sd) UCL	8357.956
		97.5% Chebyshev (Mean, Sd) UCL	10337.68
		99% Chebyshev (Mean, Sd) UCL	14226.47

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APPENDIX 1
SAGINAW RIVER BOUNDARY BERM - MANGANESE (SURFACE)

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Data File	C:\ProUCL\surf-only.xls	Variable:	surf-only

Raw Statistics	
Number of Valid Samples	26
Number of Unique Samples	26
Minimum	156
Maximum	3450
Mean	1321.135
Median	1019.5
Standard Deviation	987.3983
Variance	974955.3
Coefficient of Variation	0.747387
Skewness	0.53293

Gamma Statistics	
k hat	1.537318
k star (bias corrected)	1.385577
Theta hat	859.376
Theta star	953.4909
nu hat	79.94056
nu star	72.04998
Approx.Chi Square Value (.05)	53.50195
Adjusted Level of Significance	0.0398
Adjusted Chi Square Value	52.446

Log-transformed Statistics	
Minimum of log data	5.049856
Maximum of log data	8.14613
Mean of log data	6.827017
Standard Deviation of log data	0.948517
Variance of log data	0.899685

RECOMMENDATION

Data follow gamma distribution (0.05)

Use Approximate Gamma UCL

Normal Distribution Test	
Shapiro-Wilk Test Statistic	0.904461
Shapiro-Wilk 5% Critical Value	0.92
Data not normal at 5% significance level	
95% UCL (Assuming Normal Distribution)	
Student's-t UCL	1651.907
Gamma Distribution Test	
A-D Test Statistic	0.562704
A-D 5% Critical Value	0.761279
K-S Test Statistic	0.152182
K-S 5% Critical Value	0.174186
Data follow gamma distribution	
at 5% significance level	
95% UCLs (Assuming Gamma Distribution)	
Approximate Gamma UCL	**1779.145**
Adjusted Gamma UCL	1814.966
Lognormal Distribution Test	
Shapiro-Wilk Test Statistic	0.925345
Shapiro-Wilk 5% Critical Value	0.92
Data are lognormal at 5% significance level	
95% UCLs (Assuming Lognormal Distribution)	
95% H-UCL	2293.372
95% Chebyshev (MVUE) UCL	2703.976
97.5% Chebyshev (MVUE) UCL	3262.938
99% Chebyshev (MVUE) UCL	4360.909
95% Non-parametric UCLs	
CLT UCL	1639.652
Adj-CLT UCL (Adjusted for skewness)	1661.278
Mod-t UCL (Adjusted for skewness)	1655.28
Jackknife UCL	1651.907
Standard Bootstrap UCL	1634.378
Bootstrap-t UCL	1689.241
Hall's Bootstrap UCL	1665.011
Percentile Bootstrap UCL	1643.673
BCA Bootstrap UCL	1760.038
95% Chebyshev (Mean, Sd) UCL	2165.212
97.5% Chebyshev (Mean, Sd) UCL	2530.446
99% Chebyshev (Mean, Sd) UCL	3247.875

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STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING

JENNIFER M. GRANHOLM
GOVERNOR

STEVEN E. CHESTER
DIRECTOR

May 18, 2006

CERTIFIED MAIL

Ms. Cheryl Hiatt
GM WFG-Remediation
Pontiac Centerpoint Campus Central
1st floor, Cobalt Section
Mail Code 483-520-190
2000 Centerpoint Parkway
Pontiac, Michigan 48341-3146

Dear Ms. Hiatt:

SUBJECT: Revised Remedial Action Plan
Saginaw Malleable Iron Plant/Green Point Landfill;
Consent Judgment 98-22686-CE-2

On September 23, 2005, the Michigan Department of Environmental Quality (MDEQ), Remediation and Redevelopment Division (RRD), received at the Saginaw Bay District Office an electronic submission of the Revised Remedial Action Plan (RAP) for the Saginaw Malleable Iron Plant/Greenpoint Landfill site of environmental contamination (Facility). The RAP was submitted by the liable party group (LPG) in compliance with the mutually agreed submittal date established in accordance with the provisions of the Consent Judgment 98-22686-CE-2 (Consent Judgment). The RAP was also submitted in accordance with Part 201, Environmental Remediation (Part 201), of the Natural Resources and Environmental Protection Act (NREPA), 1994 PA 451, and the Part 201 Administrative Rules. The RAP presents a limited industrial/commercial land-use based remedy pursuant to Part 201 and the Part 201 Administrative Rules. In addition to site-wide restrictions, specific restrictions for certain site areas were proposed to ensure adequate protection of the public health and the environment.

The MDEQ has completed its review of the RAP, as well as subsequent correspondence and information submitted by the LPG to answer MDEQ questions and concerns. From this review it is the assessment of RRD staff that the RAP presents a final remedy work plan that is much improved from the Draft RAP that was submitted by the LPG on June 24, 2004, but denied approval by the MDEQ by letter dated December 7, 2004. However, there are certain matters related to the final form of the legally enforceable agreement, the restrictive covenants, and financial assurance that remain to be agreed upon to ensure that these documents are consistent with Part 201 and the Part 201 Administrative Rules. Also, some additional targeted soil sampling and some additional evaluation of long-term monitoring are necessary to assure the protectiveness of the RAP. Three attachments (Attachments) accompany this letter that present RRD staff comments and recommendations for assuring a Part 201 compliant RAP:

- Attachment 1 – Enforceable Agreement, Restrictive Covenants, Permanent Markers.
- Attachment 2 – DEQ Guidance for a Performance Bond Financial Assurance Mechanism
- Attachment 3 – Technical Comments and Recommendations for Monitoring, Long-Term Monitoring & Maintenance.

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It is important that there be an open interactive working relationship between the RRD and the LPG to adequately address the comments and recommendations presented in the Attachments and most importantly to ensure that the final form of the RAP and RAP legal documents are acceptable to all parties and are compliant with Part 201. Therefore, the RRD has discussed with the LPG the proposal that the MDEQ withhold its final determination regarding the RAP to provide an adequate time period to discuss, develop, and implement all actions necessary to address the comments and recommendations in the Attachments, and then submit a Final RAP to the MDEQ that is compliant with Part 201 and can be approved in accordance with the Consent Judgment. The RRD District staff discussed this proposal by phone with LPG representatives on May 15 and May 16, 2006. By electronic correspondence dated May 18, 2006, the LPG has provided its concurrence with the RRD proposed approach to defer the MDEQ final RAP determination. The LPG and the RRD have also reached agreement that two years is an acceptable time period for working to address the comments and recommendations in the Attachments, and submitting a Final RAP that is compliant with Part 201, the Part 201 Administrative Rules, and is approvable under the terms of the Consent Judgment. With this concurrence between representatives for the LPG and the MDEQ the date of **May 19, 2008**, is the agreed upon submittal date for the approvable Final RAP. This date is understood by all parties to be enforceable under the provisions of the Consent Judgment. The MDEQ will review the Final RAP and will provide its determination in accordance with the schedule established in Paragraph 15.2 of the Consent Judgment.

Thank you for your continuing efforts to work proactively with RRD staff towards ensuring that the final remedy for the Facility is protective of the environment and the public health, and compliant with Part 201 and the Consent Judgment. If you should have further questions or concerns, please contact Sue Kaelber-Matlock, RRD, Saginaw Bay District Office, at 989-686-8025, extension 8303, or Allan Brouillet at 989-686-8025, extension 8305.

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Sincerely,

Brenda J. Brouillet, District Supervisor
Saginaw Bay District Office
Remediation and Redevelopment Division
989-686-8025, Extension 8300

Attachments
cc: Mr. Anthony Thrubis, GM
Mr. Jeff Jatczak, GM
Ms. Rachel Schneider, Quarles Brady
Mr. Ed Peterson, REALM
Mr. Kent Bainbridge, WMI
✓Ms. Lisa Coffey, BBL
Mr. John F. Leone, DAG
Mr. Andrew W. Hogarth, MDEQ
Mr. Philip L. Schrantz, MDEQ
Ms. Pat McKay, MDEQ
Ms. Nan Leemon, MDEQ
Ms. Brenda J. Brouillet, MDEQ
Ms. Sue Kaelber-Matlock, MDEQ

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Attachment 1

Overview

Section 3.18 of the RAP proposes use of the Consent Judgment as the legally enforceable agreement for implementation of the RAP as required by Section 20120b(3) of the NREPA. This approach is acceptable to the MDEQ provided that supplementary information is added to the RAP to bring the RAP, and therefore the Consent Judgment, into compliance with the provisions of Part 201 of the NREPA and the Part 201 Administrative Rules. To facilitate discussion and resolution of this matter, the MDEQ has prepared a RAP supplementary information proposal. The paragraph numbering reflects the proposed placement of the verbiage into the RAP.

Attachment 1 also includes additional language modifications to the RAP that the RRD believes are necessary to support the proposed changes to Section 3.18 discussed above, as well as to address recommended MDEQ modifications for the placement of permanent markers and the financial assurance mechanism.

Finally, Attachment 1 includes MDEQ modification recommendations specific to the restrictive covenants.

MDEQ Proposed RAP Supplementary Information to bring the Consent Judgment into Compliance with the Provisions of Part 201 and the Part 201 Administrative Rules.

3.18 Legally Enforceable Agreement

Pursuant to Section 20120b(3) of the NREPA, the following provisions of the remedial action are required to be stipulated in a legally enforceable agreement with the MDEQ: (a) land-use or resource-use restrictions; (b) monitoring; (c) operation and maintenance; (d) permanent markers; and (e) financial assurance. To satisfy the requirements of Section 20120b(3) of the NREPA, the legally enforceable agreement for this RAP relies upon the Consent Judgment executed between the Michigan Department of Environmental Quality (MDEQ), the Michigan Attorney General's Office, General Motors Corporation (GM), and Waste Management, Inc. (WMI), and entered by the State of Michigan Circuit Court for Saginaw County on March 16, 1998, Case No. 98-22686-CE-2 (Consent Judgment).

There are elements of the provisions required pursuant to Part 20120b(3) that are missing from the Consent Judgment. These elements are further outlined in this Section 3.18 and contain the enforceable provisions pertaining to:

(a) – the Abandonment of Observation and Monitoring Wells presented in Section 3.9 of the RAP;

(b) – the Land, Groundwater, and Surface Water Use Restrictions presented in Section 3.13 of the RAP;

(c) – the Specifications for Permanent Markers presented in Section 3.16 of the RAP;

(d) – the Proposed Financial Assurance Mechanism presented in Section 3.17 of the RAP.

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The provisions set forth in Section 3.18 are necessary for RAP inclusion to satisfy Part 201 and the Part 201 Administrative Rules. With final approval of the RAP, the RAP is incorporated as an enforceable component of the Consent Judgment as stipulated in Section XVIII, Paragraph 18.2, of the Consent Judgment. Consequently the Consent Judgment, as supplemented by the provisions of Section 3.18 of the RAP, collectively serves as the legally enforceable agreement required pursuant to Section 20120b(3) of the NREPA.

3.18.1 Definitions

"Remedial Action Plan" or "RAP" means this Site Specific based criteria remedial action plan entitled, General Motors Corporation Saginaw Malleable Iron Plant Property, and REALM, Inc. Green Point Landfill and Drum Remediation Area, Saginaw, Michigan, dated September 23, 2005, for the Facility, prepared by Blasland, Bouck & Lee, Inc., that was submitted on behalf of the LPG, and all other subsequent MDEQ-approved modifications to the RAP.

"Long-Term RAP Costs" means the costs of Operation and Maintenance, oversight, monitoring, and other costs necessary to assure the effectiveness and integrity of the remedial action set forth in the RAP in perpetuity.

"Operation and Maintenance Phase" means the performance of the activities set forth in the Summary Operation, Maintenance and Monitoring Plan found in Appendix C, beginning the date upon which this RAP is approved by the MDEQ.

"Site" means the property legally described in Appendix G and generally described as the General Motors Corporation Saginaw Malleable Iron facility and surrounding ancillary areas, as well as the closed Green Point Landfill and the Drum Remediation Area. For purposes of this RAP, the term "Site" is synonymous with the term "facility" as that term is defined by Section 20101(o) of the NREPA.

"Part 201 Administrative Rules" or "Rules" means the administrative rules promulgated under Part 201.

Unless otherwise defined herein or in the Consent Judgment, all other terms used in this RAP, which are defined in Part 3, Definitions, of the NREPA, MCL 324.301; Part 201 of the NREPA; or the Part 201 Administrative Rules, 1990 AACS R 299.5101, *et seq.*, as amended by changes at 2002 Michigan Register 24 that became effective on December 21, 2002, shall have the same meaning in this document as in Parts 3 and 201 of the NREPA, and the Part 201 Administrative Rules.

3.18.2 Performance Standards

The overall performance standard of the RAP is to assure the protection of the public health, safety and welfare, and the environment. The specific performance standards employed by the RAP are as follows:

(a) Eliminate unacceptable exposures to groundwater used for potable or domestic use.

(b) Eliminate unacceptable direct contact exposures for the LNAPL Assessment and Remediation Area, Quench Pit Area, Former DRA Hillock Area, and Previous Metal Feedstock Area.

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(c) Eliminate unacceptable inhalation exposures from contaminated soil and groundwater volatilization to indoor air in the Former UST #7 Area and the DRA/Former Hillock Area.

(d) Eliminate unacceptable inhalation exposures from contaminated soil in the Former CTC Parking Lot East of the Plant.

(e) Eliminate unacceptable direct contact exposure with contaminated soil or waste fill material in the former Green Point Landfill, Type III Landfills, 127.7 Area, and Melting Department Area.

(f) Eliminate unacceptable inhalation exposures from contaminated soil in the Former Railyard Area.

(g) Eliminate unacceptable inhalation exposures from contaminated soil along the Saginaw River Boundary and control erosion along the Saginaw River Berm Area.

(h) Prevent unacceptable hazardous substance migration from the former Greenpoint Landfill in accordance with post-closure operation and maintenance procedures.

(i) Implement groundwater monitoring along the Saginaw River Boundary Area and within the DRA/Former Hillock Area.

(j) Eliminate unacceptable exposures to ecological receptors from constituents detected in site environmental media that are associated with industrial and landfilling operations that occurred at the facility.

3.18.3 Progress Reports

In addition to the requirements specified in Section XVI of the Consent Judgment (Progress Reports), the Progress Reports shall also include an assessment and documentation of the integrity of all exposure control mechanisms on which the RAP is dependent (e.g., barriers, permanent markers, etc.), and compliance with land-use restrictions, resource-use restrictions, and institutional controls. If appropriate, the report shall describe any modifications to the RAP that are determined to be necessary to assure the continued effectiveness and integrity of the remedial action.

3.18.4 Modification

If the MDEQ determines that a modification to the work specified in the approved RAP is necessary to: (a) achieve or maintain the performance standards set forth in Paragraph 3.18.2 of this RAP; (b) assure the effectiveness, integrity, or reliability of the remedial action undertaken pursuant to the RAP; (c) correct a lapse or noncompliance under Paragraph 3.18.5 of this RAP; or (d) otherwise prevent unacceptable exposures to public health, safety, welfare and the environment, the MDEQ may require that such modification be incorporated into the RAP. However, only modifications consistent with the Section VI (Additional Response Activity) of the Consent Judgment may be required. If the necessary modifications are extensive the MDEQ may request submittal of a RAP modification plan proposal for MDEQ review and approval. The RAP may only be modified by written agreement between the Defendants and the MDEQ's RRD Chief or his or her authorized representative. Upon MDEQ approval, the Defendants shall perform the response activities in accordance with MDEQ-approved implementation schedules.

3.18.5 Voidance and Nullification

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(a) The MDEQ has determined that all of the following provisions are applicable to the remedial action and the RAP. If any of these provisions lapse or are not complied with as provided in this RAP then the MDEQ's approval of the RAP is void from the time of the lapse or noncompliance until the lapse or noncompliance is corrected to the satisfaction of the MDEQ:

(1) Required land and/or resource use restrictions including, but not limited to:
(i) A required land and/or resource use restriction that is determined to be unlawful by a court of competent jurisdiction; or
(ii) A required land and/or resource use restriction that is violated in a manner that results in the RAP not being protective of public health safety, welfare, and the environment.
(2) Monitoring
(3) Operation and Maintenance
(4) Permanent Markers
(5) Financial Assurance

(b) If the Defendants fail to correct the lapse or noncompliance as set forth above within thirty (30) days of written notification by MDEQ of the lapse, or if the Defendants fail at any time to adequately implement the remedial action in accordance with the RAP, the MDEQ may implement those response activities that the Defendants have failed to perform. Costs which the MDEQ lawfully incurs in the performance of response activities shall be reimbursed by the Defendants pursuant to Section XXIII (Reimbursement of Costs) of the Consent Judgment.

(c) The MDEQ's approval of the RAP shall be nullified if any of the following occur, and shall continue until the lapse or violation is corrected to the satisfaction of the MDEQ:

(1) Site conditions unknown at the time of RAP implementation are discovered and these previously unknown conditions result in the RAP no longer being protective of the public health, safety, welfare, or the environment.
(2) Failure to achieve compliance with applicable cleanup criteria or performance standards established in the RAP.
(3) Failure to reliably maintain compliance with applicable cleanup criteria or performance standards established in the RAP, notwithstanding repeated attempts to cure the failure. In these circumstances nullification of MDEQ approval will take effect within ninety (90) days of the initial discovery of the failure by either the Defendants or the MDEQ.

(d) If the MDEQ's approval of the RAP becomes void or nullified, all other terms of the Consent Judgment will remain in full force and effect.

3.18.6 Compliance with State and Federal Laws

In addition to the requirements set forth in Section XII (Compliance with Other Laws) of the Consent Judgment, and except as provided under Section 20120a(15) of the NREPA, this RAP does not obviate the Defendants' obligation to obtain and maintain compliance with any permit or authorization required under state or federal laws.

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Additional Language Modifications to the RAP

Table of Contents

- 3.18 – remove the word "Proposed".
- Add an Appendix G that provides the legal description of the Site.

RAP Page 1-1

- At the end of the first paragraph add a comma after 1998 and then add, "... Case No. 98-22686-CE-2 (Consent Judgment)."
- Under 1.1 add the following sentence to the beginning of the first paragraph: "For the purposes of this RAP, the term "Site" is synonymous with the term "facility" as that term is defined by Section 20101(o) of the NREPA."
- After first paragraph under 1.1 add: "See Appendix G for a legal description of the Site."

RAP Page 2-16

- In the second paragraph under *VI. Saginaw River Boundary*, fourth sentence, add "and Rule 299.51013 of the Part 201 Administrative Rules."

RAP Page 3-4, Section 3.9 (Abandonment of Observation/Monitoring Wells)

- At the end of the fourth sentence, add "...in accordance with a schedule agreed upon between the LPG and the MDEQ."
- Add the following paragraph: "Upon the conclusion of all response activities requiring the use of groundwater wells or other subsurface devices detailed in the RAP, including operation, maintenance, and long-term monitoring, the Defendants shall provide notice to and obtain approval from the MDEQ for the proper plugging and abandonment or removal of all remaining wells and other response activity related devices at or related to the Site. Upon receipt of MDEQ's approval, Defendants shall use the proper well abandonment procedures as described in ASTM Standard D 5299-92 (*Standard Guide for Decommissioning Ground Water Wells, Vadose Zone Monitoring Devices, Boreholes, and Other Devices for Environmental Activities*), or other relevant or applicable standards.

RAP Page 3-6, Section 3.16 (Specifications for Permanent Markers)

- Pursuant to Section 20120b(3)(d) of the NREPA, the permanent marker must describe the restricted areas of the site and the nature of any restrictions. This is most commonly accomplished by a properly scaled representation of the property boundary and the restricted area, accompanied by text that briefly describes the restrictions. In addition, the use of wood and the use of iron pipe, as proposed by the LPG in the RAP, are unacceptable for the construction of permanent markers. To address these issues the MDEQ recommends replacing verbiage after the third sentence in Paragraph 3.16 with the following: "The permanent markers will be made of stone, cast metal, or similar durable material. The location of each permanent marker is identified in the survey attached as Exhibit 2 to Appendix D of this RAP. The permanent markers will include text that describe the restricted area, the use restrictions for the restricted area, the

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MDEQ Part 201 site identification number, the liber and page numbers of the restrictive covenant, and a graphical depiction of the restricted area(s) relative to the Site boundaries. Perimeter permanent markers will be posted at the corners of each restricted area. All permanent markers will be maintained in legible condition in accordance with the provisions of the MDEQ approved operation and maintenance plan.

RAP Page 3-7, Section 3.17 (Proposed Financial Assurance Mechanism)

- The first sentence of Section 3.17 should be removed. The MDEQ recommends that the following verbiage be added after the remaining sentence: "The FAM will be established and maintained in accordance with Section XXIX (Financial Capability) of the Consent Judgment. The FAM will be in an amount sufficient to cover Long-Term RAP Costs at the Site for a thirty (30) year period and will be in a form that allows the MDEQ to immediately contract for the response activities for which financial assurance is required in the event the LPG fails to implement the required tasks."
- The MDEQ requests that the performance bond be worded in accordance with MDEQ model language accompanying the Notice as Attachment 2. In addition, the MDEQ reminds the LPG that the "Surety" must be an insurer who is authorized to transact the business of surety and fidelity insurance in the state of Michigan, and is an acceptable surety on federal bonds as listed in Circular 570 of the United States Department of Treasury.

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Modifications Specific to the Restrictive Covenants

1. The LPG did not provide a survey of restricted areas (Exhibit 2). All restrictive covenant exhibits and support information must be available for review by the MDEQ before any final determination on acceptability of the restrictive covenant(s) can be made. Surveys are required for areas requiring maintenance of protective cover, prevention of intrusion, construction prohibitions, and areas requiring limitations on worker exposure. A survey of the entire site is also required.

2. It is important that the LPG ensure that restrictive covenants and the associated allowable uses for the property accurately conform with City of Saginaw zoning.

3. Over the months prior to the issuance of this Notice the MDEQ and the LPG engaged in detailed discussions regarding human health risk issues at the facility. The MDEQ requests that the LPG review the use restrictions in the restrictive covenants to ensure that they remain accurate and appropriate to the outcome of the human health risk discussions.

4. Because only a portion of the Property will have specific use restrictions, the MDEQ recommends that the third paragraph on Page 1 of the restrictive covenant be changed to read: "The "*Limits of Land or Resource Use Restrictions,"* attached hereto as Exhibit 2, provides the legal description(s) and a survey that distinguishes those portions of the Property that are subject to land use or resource use restrictions as specified herein."

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5. The LPG should evaluate the "Summary of Response Activities at the Site" to ensure that it accurately describes the response actions that were implemented at the portion of the property subject to the restrictions.

6. Paragraph 2, located on Page 4 of the restrictive covenant for the Quench Pit and Previous Metal Feedstock Area, appears to be mislabeled. The labeling should be 2.a through 2.h. With this change, the MDEQ recommends that an additional sentence be added to 2.c that states: "Prior to the implementation of any intrusive activities an evaluation of soil and soil vapors must be completed. Proposed intrusive activities can be undertaken if the evaluation demonstrates that unacceptable exposures above the then applicable soil indoor air inhalation and direct contact criteria would not result."

7. The LPG should reexamine the restrictive covenants to ensure that all exhibits are properly labeled and referenced within the restrictive covenant.

8. The MDEQ recommends that the term "current facility operation" be defined by the LPG since future owners or operators may be unaware of what these operations were.

9. The requirement for completion and implementation of a Health and Safety Plan is an unenforceable component of the restrictive covenants, cannot be approved by the MDEQ, and should be removed from the restrictive covenants. The MDEQ requests that the LPG propose alternate restrictive language to address the exposure concerns that were intended to be addressed by the Health and Safety Plan proposed verbiage.

10. The MDEQ recommends that the 'Nonexclusivity' paragraph be removed from the restrictive covenants.

11. The MDEQ reference number will be provided when the LPG addresses all modifications and conditions specific to the restrictive covenants in a manner that is acceptable to the MDEQ.

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Attachment 2

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY (DEPARTMENT)
REMEDIATION AND REDEVELOPMENT DIVISION
FINANCIAL ASSURANCE MECHANISMS
PART 201

Date: 1/17/2003
Guidance Document
Financial Assurance Mechanism: Performance Bond (PB)

Purpose: The purpose of this guidance document is to provide information on the use of a PB to fulfill the requirements for financial assurance pursuant to Rules 532(11) and 526(7) of the Part 201 Administrative Rules (Part 201 Rules), R 299.5532(11) and R 299.5526(7), promulgated under Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA).

Background: Section 20120b(3) of the NREPA states that if a remedial action is selected or approved by the Department, based on criteria provided for in Section 20120(1)(f) to (j) or (2), provisions concerning the following, if determined by the Department to be necessary to assure the effectiveness and integrity of the remedial action, shall be stipulated in a legally enforceable agreement with the Department.

(a) Land use or resource use restrictions;
(b) Monitoring;
(c) Operation and maintenance;
(d) Permanent markers to describe areas of the site and the nature of any restrictions; and
(e) Financial assurance, in a form acceptable to the Department to pay for monitoring, operation and maintenance, oversight, and other costs determined by the Department to be necessary to assure the effectiveness and integrity of the remedial action.

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Specifically, Rule 532(11)(m) of the Part 201 Rules, R 299.5532(11)(m), states that the costs of activities covered by the financial assurance mechanism (FAM) shall be documented on the basis of an annual estimate of maximum costs for the activity as if they were to be conducted by a person under contract to the state. Costs shall not be based on activities being conducted by employees of the person proposing the remedial action. A FAM shall be provided if the cost of monitoring, operation and maintenance, and other activities necessary to assure the effectiveness and integrity of the remedial action plan (RAP) or the interim response designed to meet criteria (IRDC) are more than an average of $2,500 per year in year 2001 dollars. Any adjustment in the $2,500 threshold to account for inflation shall be determined in a manner that is acceptable to the Department. The FAM shall provide sufficient funds to conduct any task for which a FAM is required under this subrule, but is not required to cover an alternative remedial action in the event of remedy failure. The financial assurance shall be in an amount and form that allows the Department to immediately contract for the response activities for which financial assurance is required in the event the person conducting response activity fails to implement the required tasks. An acceptable financial assurance shall be in one of the following forms:

(i) Letter of Credit,
(ii) Environmental Escrow,
(iii) Trust Fund,
(iv) Certificate of Deposit,

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(v) Performance Bond, or
(vi) Another form that is acceptable to the Department and satisfies the requirements of this subrule.

Rule 526(7) of the Part 201 Rules, R 299.5526(7), states that a person who wishes to establish that an IRDC provided for under Section 20120(1)(f) to (j) or (2) of the act [the NREPA] is complete for one or more environmental media in all or a portion of the Part 201 regulated facility shall maintain documentation including, but not limited to, subrule (c)(ii):

> Documentation of the Department's approval of all of the applicable provisions of Section 20120b(3)(a) to (e) of the act.

Minimum Requirements: The Person Proposing the Plan (PPP) must enter a "Performance Bond" with the Department and the financial institution. The following minimum requirements apply to a PB:

1. The "Surety" must be an insurer who is authorized to transact the business of surety and fidelity insurance in the state of Michigan and is an acceptable surety on federal bonds as listed in Circular 570 of the United States Department of Treasury.

2. The PB must be executed on the letterhead of the Surety, must be in the sole name of the Department, and the Department must be the sole beneficiary.

3. The amount of the PB must at least be equal to or greater than the amount to fund all necessary monitoring, operation and maintenance, oversight, and other costs necessary to assure the effectiveness and integrity of the RAP or IRDC for the time frame(s) specified in the legally enforceable agreement.

4. The PPP must provide to the Department a proposed PB. The PB must be worded in accordance with the model language (see RAP-IRDC PERF BOND.doc), except that the bolded instructions, options, and/or blanks are to be replaced with the appropriate information. Any further changes to this model language may be made only with the concurrence of the division chief charged with implementation of the Part 201 program.

5. The Surety is subject to the approval of the Department and can be replaced at the direction of the Department.

6. The PB can only be terminated at the direction of the Department.

For More Information on FAMs and Legal Agreements: The PB can be located at the following link: RAP-IRDC Performance Bond. Other types of FAMs and enforceable agreements can be obtained from the website at: www.michigan.gov\deq; then click on Land\Land Cleanup\Enforcement & Response Activity\Information – Model Documents; or by calling 517-373-7818.

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DEQ

Michigan Department of Environmental Quality
Remediation and Redevelopment Division

THE ATTACHED MODEL DOCUMENT ENTITLED:

PERFORMANCE BOND AGREEMENT

IS A DRAFT DOCUMENT THAT IS SUBJECT TO REVISION. IT IS PROVIDED TO THE PUBLIC AS A PRELIMINARY GUIDANCE AS TO THE CONTENT, FORMAT, AND TERMS OF THE FINANCIAL ASSURANCE MECHANISM. IT IS NOT INTENDED, NOR CAN IT BE RELIED UPON, TO CONVEY ANY RIGHTS, SUBSTANTIVE OR PROCEDURAL, TO ANY PARTY. PLEASE CONTACT THE COMPLIANCE AND ENFORCEMENT SECTION, REMEDIATION AND REDEVELOPMENT DIVISION, MDEQ, AT 517-373-7818 TO ASCERTAIN WHETHER THIS DRAFT IS THE MOST RECENT DRAFT OF THIS DOCUMENT.

NOTE: Use the word "Facility" if this Bond is for a remedial action for the facility. Use the word "Property" for properties if this bond is for an interim response designed to meet criteria (IRDC).

NOTE: Drafting notes appear as italicized, bold print; insertion directions appear in italicized, bold print within bold brackets; and word choices appear in regular, bold print within bold brackets. Replace notes, directions, and word choices with the appropriate information.

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MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
REMEDIATION AND REDEVELOPMENT DIVISION
FINANCIAL ASSURANCE MECHANISMS
PART 201
PERFORMANCE BOND

Surety: [_____]
Address: [_____]

Bond Number: [_____]

Total Amount of Bond: [$___,___]

Effective Date: [_____]

Principal: [_____]
Business Address: [_____]

Facility Name: [_____]
Facility/Property Address: [_____]

Department Site ID Number: [_____]

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RECITALS

A. On [*insert the effective date of the Agreement*]**, the Michigan Department of Environmental Quality (hereinafter, "Department") approved a** [remedial action plan (RAP) *OR* interim response activity designed to meet the cleanup criteria (IRDC)] **for a** [*insert category of land use based closure pursuant to Section 20120a*] **at the** [*name and address of Facility*] **("Facility") pursuant to Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended ("NREPA"), MCL 324.20101, *et seq.*, and as provided for in** [*list type of agreement: e.g, legally enforceable agreement OR Administrative Order by Consent OR Consent Decree, etc.*] **("Agreement") for the** [Facility *OR* Property]**. The Agreement includes provisions for the implementation of** [*insert as appropriate:* land use restrictions, monitoring, operation and maintenance, installation of permanent markers, and a financial assurance mechanism] **at the** [Facility *OR* Property]**. Pursuant to Section 20120b(3)(e) of the NREPA,** [*name of person proposing the plan OR ("PPP")*] **(hereinafter, "Principal") is required to provide financial assurance, in a mechanism acceptable to the Department, to pay for "monitoring, operation and maintenance, oversight and other costs determined by the Department to be necessary to assure the effectiveness and integrity of the Long-Term Requirements of the** [RAP *OR* IRDC] **as provided for in the Department-approved** [RAP *OR* IRDC] **for the** [Facility *OR* Property] **(hereinafter, "Long-Term Requirements").**

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B. The "Current Cost Estimate" to pay for the performance of the Long-Term Requirements is: **$[*insert numeric amount*]**

C. The Principal is providing this Performance Bond ("Bond") to the Department to fulfill its obligations under Part 201 to provide financial assurance for the performance of the Long-Term Requirements. **[*Name of insurer*]** ("Surety") is an insurer who is authorized to transact the business of surety and fidelity insurance in the state of Michigan and is an acceptable surety on federal bonds as listed in Circular 570 of the United States Department of Treasury. The Principal and Surety, and their heirs, executors, administrators, successors, and assigns, jointly and severally, are firmly bound unto the Department to fulfill their obligations as set forth in the Bond.

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D. The definition of the terms used in this Bond is the same as those used in the Agreement.

NOW, THEREFORE, the Principal and Surety agree to the following:

1. This Bond as issued is sufficient to cover the Current Cost Estimate for performing the Long-Term Requirements. Adjustments to the amount of the Bond may only be made as follows:

(a) If there is an increase in the cost estimate for performing the Long-Term Requirements, the Principal, within sixty (60) days of becoming aware of the increased costs, shall increase the amount of financial assurance by making arrangements with the Surety for an increase in this Bond to an amount at least equal to the increased cost estimate and submitting evidence of such increase to the Department, by submitting a replacement performance bond, or by establishing an alternative financial assurance mechanism that is acceptable to the Department to assure the performance of the Long-Term Requirements.

The Surety acknowledges that the Principal is obligated to provide increased financial assurance to pay for the performance of the Long-Term Requirements if either of the following occur: (i) the Principal's five (5)-year cost estimate update for performing the Long-Term Requirements, which the Principal is required to conduct pursuant to the Agreement, shows that the Principal will incur costs to perform the Long-Term Requirements, which are in excess of the Current Cost Estimate; or (ii) the Principal is required to implement a modification to the **[RAP *OR* IRDC]**, pursuant to the Agreement and that modification affects the Long-Term Requirements such that the Principal will incur costs which are in excess of the Current Cost Estimate.

(b) If any five (5)-year cost estimate conducted by the Principal is less than the Current Cost Estimate amount provided for by this Bond, the amount of this Bond may be reduced to that lesser amount following the Principal and Surety's receipt of written approval for such reduction by the Department.

2. This Bond shall continue in full force and effect for a period beginning with the effective date of this Bond and ending only when this Bond is terminated or cancelled. This

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Bond may only be terminated or cancelled when the Principal has satisfied one of the following conditions (a) through (c) below and the Principal and Surety have received written authorization for such termination or cancellation from the Department.

(a) The performance of the Long-Term Requirements is no longer necessary at the **[Facility *OR* Property]** and the Principal has paid all of the Department's response activity costs in accordance with the Agreement.

(b) The Department has determined that a financial assurance mechanism is no longer necessary for the **[Facility *OR* Property]** and the Principal has paid all of the Department's response activity costs in accordance with the Agreement.

(c) The Principal provides an alternative financial assurance mechanism acceptable to the Department to assure the performance of the Long-Term Requirements.

3. The Surety shall become liable as provided for in this Bond only when the Principal has failed to perform the Long-Term Requirements, has failed to pay the Department's response activity costs as required by the Agreement, or has failed to provide alternative financial assurance acceptable to the Department as provided for in this Bond or the Agreement. If the Principal fails to meet any of these obligations and the Department authorized representative (division chief of the Part 201 implementing program) has issued a written notification to the Principal and Surety regarding the Principal's failure to comply, the Surety shall do the following as directed by the Department within thirty (30) days.

(a) If the Principal has failed to perform the Long-Term Requirements, the Surety shall either perform those requirements in accordance with the **[RAP *OR* IRDC]** or make payment to the Department for the full amount guaranteed by this Bond.

(b) If the Principal has failed to pay the Department's response activity costs, the Surety shall make payment to the Department for the full amount of the Department's response activity costs that the Principal has not paid.

(c) If the Principal has failed to provide an alternative financial assurance mechanism within sixty (60) days of receipt of the Surety's intent to cancel this Bond as specified in Paragraph 6 of this Bond, the Surety shall make payment to the Department for the full amount guaranteed by this Bond.

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4. The liability of the Surety shall not be discharged by any payment or succession of payments hereunder unless and until such payment or payments amount in the aggregate to the amount of this Bond; however, in no event shall the Surety's obligation hereunder exceed the amount of this Bond.

5. The Surety agrees that any amendments to the **[RAP *OR* IRDC]** or to any applicable laws, statutes, rules, or regulations shall not affect its obligations with respect to this Bond, except that any modifications of the **[RAP *OR* IRDC]** that cause an increase or decrease in the amount of financial assurance required by Part 201 shall be dealt with in accordance with Paragraph 1.

6. The Surety may initiate the process to cancel this Bond by sending written notice of its intent to cancel by certified mail to the Principal and to the Department. Within sixty (60) days of the Department's receipt of the Surety's intent to cancel this Bond, the Principal must either provide an extension of this Bond or provide an alternative financial assurance mechanism to the Department. The Surety shall not cancel this Bond during the one hundred and twenty (120)-day period after the Principal and the Department receive the notice of intent to cancel. However, the Surety may cancel this Bond after the one hundred and twenty (120)-day period or upon its receipt of written authorization for such cancellation from the Department.

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7. The Principal may terminate this Bond by sending written notice to the Surety and the Department, provided, however, such termination shall only become effective if the Principal has met the requirements of Paragraph 2. The Surety may then terminate this Bond when the Principal and Surety have received written authorization for such termination from the Department.

8. If the Department determines that either the Principal or Surety has not complied with any of the terms or conditions of this Bond, Department shall have recourse to the rights created under this Bond. The Department reserves all its other rights against the Principal under the applicable statutes.

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In witness whereof, the Principal and Surety have executed this Bond, affixed their seals, and attached their justification for power of attorney as of the effective date written above.

The persons whose signatures appear below hereby certify that they are authorized to execute this Bond on behalf of the Principal and Surety and that the wording of this Bond is identical to the wording provided by the Department.

Sealed with our seals, dated **[*date of execution*]**.

[*NAME OF PRINCIPAL*]
PRINCIPAL

By: _____
Signature

_____
Print or type

Title: _____
Type or Print

Date: _____

[*NAME OF SURETY*]
SURETY

By: _____
Signature

_____
Print or type

Title: _____
Type or Print

Date: _____

STATE OF MICHIGAN

BY: _____
Signature

[*Name of Division Chief*], Division Chief
Remediation and Redevelopment Division
Department of Environmental Quality

Date: _____

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Attachment 3

Technical Comments - May 15, 2006

The Draft Remedial Action Plan (Draft RAP) was submitted on September 26, 2005 by Blasland, Bouck & Lee (BBL) for General Motors (GM). The response regarding the ecological assessment from Exponent was sent to Dr. Hector Galbraith on November 1, 2005, and was found to be acceptable. The Human Health Evaluation Addendum was forwarded to Remediation and Redevelopment Division (RRD) toxicologists, Ms. Chris Flaga and Ms. Divinia Stemm, on October 20, 2005. Their response, dated January 18, 2006, was discussed in a meeting with GM, Waste Management, Inc. (WMI), and BBL staff on February 22, 2006. GM then submitted comments on March 24, 2006, and agreed to a RAP response date of May 19, 2006. The Draft RAP has been reviewed in context with the additional restrictions as proposed in the March 24, 2006 letter. The Draft RAP was discussed at District QRT on April 4, 2006, and at FOQRT on April 5, 2006. The Draft RAP is approvable with the following comments.

1. As was discussed at the February 2006 meeting, the concentration of manganese in the surficial soils of the former railyard area must be defined adjacent to and into the residential area. The source size calculated for the off-site receptors will be dependent on the results of the future sampling effort. GM agreed to define the nature and extent of manganese off-site, but my understanding was that it will not be completed prior to the submittal of the final RAP. Instead, a workplan for the additional investigation will be included in the final RAP. If the nature and extent of the off-site manganese is not defined prior to the approval of the RAP, in order for the MDEQ to approve the RAP as protective and compliant with Part 201, GM must include a proposal for a presumptive remedy for any areas that exceed the residential particulate criterion.

2. Revisions, such as changing timeframes and deleting specific monitoring wells or parameters, cannot be made without the review and approval of the MDEQ. GM can propose revisions or modifications in the annual monitoring report.

3. Analytical results of compounds obtained using filtered samples with "ultra" low flow sampling methods should not be used for comparison with the relevant Part 201 risk criteria. If GSI exceedances of specific metals continue along the Saginaw River boundary, GM must take response actions to address the exceedances and could consider applying for a mixing zone for those compounds.

4. Information regarding the Type III Landfills is missing at the bottom of page 1-4.

5. The following comments are specific to Operation and Maintenance (O&M) and Monitoring Plan.

   A. LNAPL O&M and Monitoring Activities
      - If the LNAPL system is off-line for longer than 30 days, the MDEQ must be notified with a plan of action and schedule to re-start the system.
      - It is acceptable to monitor the wells on the GM side on a quarterly basis for LNAPL and static water levels. The MDEQ is currently in the process of reviewing the LNAPL recovery systems in place at the adjacent Delphi facility. It appears that neither GM nor Delphi are addressing the MW-148/RW-4 area. This area must be addressed.

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- The results of the tracking for seasonal variations in the water table, the groundwater flow conditions, the LNAPL thickness, and draw-down maps (such as J-3 included in the LNAPL Assessment and Recovery Report, January 1998), must be submitted to the MDEQ for review in the annual monitoring report.
- In addition to the monitoring wells proposed, MW-168WT and MW-180WT should be included in the monitoring for this area. MW-168WT had product on the one occasion that it was tested and MW-180WT is the most down-gradient well which has had small amounts of product over the years.
- Currently only the LNAPL is being addressed in this area. The final RAP must include a contingency plan to address the dissolved contaminants in this area, if necessary, once the LNAPL has been removed.

B. Greenpoint Landfill Monitoring
   - For long-term monitoring, GSI wells in the deeper sand will be needed along the Saginaw River. The new wells should be monitored quarterly for one year with analytical samples and static water levels.
   - GM has stated in the RAP that the ammonia nitrogen found in the Greenpoint Landfill area is from past agricultural practices, however there are elevated levels of ammonia nitrogen around the landfill in areas that are not currently or historically farmed. Ammonia nitrogen must be added to the parameter list for all monitoring wells. The potential discharge of ammonia nitrogen into the surrounding wetlands, ditches, and/or the Saginaw River must be evaluated and addressed, as necessary.
   - Well clusters X-4 and X-9 must be added to the long-term monitoring plan, and sampled quarterly for the entire parameter list for one year.
   - Since the deeper wells have not been sampled since before the capping was completed at Greenpoint Landfill, the deeper wells in the well clusters MW-117, MW-118, X10, and X2, must be sampled quarterly for the entire parameter list for at least one year.
   - GM cannot limit long-term monitoring around Green Point Landfill to a maximum of 30 years.

C. Saginaw River Boundary
   - In addition to MW-111WT, groundwater in MW-112WT, MW-185WT, B-7R, and MW-114WT, must also be monitored for manganese since they appear to be within the manganese impacted area, as shown on CRA Figure 2.
   - MW-107WT must be added to the Saginaw River Boundary program.

6. Monitoring wells, not used in the Long-term Monitoring Program, must be properly abandoned within the next six months. The documentation to verify this activity must be submitted to the MDEQ in the first annual monitoring report.

7. The final RAP must include specific details of what will be included in the annual monitoring reports. The annual monitoring report must include the effectiveness of the response actions, the effectiveness of the monitoring, and any modifications needed. The annual monitoring report must include site-wide groundwater contour maps.

8. Appendix F indicates that the soil pathway for Particulate Soil Inhalation Criteria (PSIC) has been eliminated in the Saginaw River berm because only the subsurface soil concentrations of manganese exceed the Part 201 criterion. The PSIC criteria are applicable at all soil depths, consequently, this pathway cannot be eliminated and the soils in this area must be addressed.

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Coffey, Lisa

From: Coffey, Lisa
Sent: Monday, November 27, 2006 12:49 PM
To: Robertson, Jo Ann
Subject: FW: Oct 31, 2006 Workplan for Additional Site Investigation, SMI

FYI

Lisa R. Coffey, P.G. (PA PG003176G)
Sr. Geologist/Associate
Blasland, Bouck & Lee, Inc.
6723 Towpath Road
P.O. Box 66
Syracuse, N.Y. 13214-0066

phone: 315-671-9164
fax: 315-446-8053

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-----Original Message-----
From: Sue Kaelber-Matlock [mailto:matlocks@michigan.gov]
Sent: Tuesday, November 21, 2006 1:52 PM
To: cheryl.r.hiatt@gm.com; kbainbri@wm.com
Cc: Coffey, Lisa; Rhonda Klann
Subject: Oct 31, 2006 Workplan for Additional Site Investigation, SMI

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Cheryl and Kent, when I spoke with Lisa, I told her that I would respond by e-mail specifically regarding the well installations along the river.
I will respond to the remainder of the comments prior to December 8, 2006.

It was my intent that the wells in the deep sand be installed according to the previously agreed upon protocol, meaning that if there was more than 12' or 14' of saturated sand, wells with 5' screens would be, at a minimum, installed at the top and base of the saturated unit. A single well installed at the base of the unit, as proposed, is not acceptable,
unless there is less than 12' of saturated unit.

The parameter list for the new wells must include PCBs and semi-volatiles as well as those parameters proposed in the workplan.
The parameter list for the existing deep wells that have not been sampled since before the landfill was capped should also include 3
rounds of PCBs and semi-volatiles.

Three quarters of analytical is acceptable to characterize the groundwater in the deeper sand, but some long-term monitoring of the deeper sand downgradient of the Greenpoint Landfill will also be necessary.

If you have questions or want a conference call to discuss this issue,
please call me to set up a time. Thanks, Sue

Sue Kaelber-Matlock
Senior Geologist
Department of Environmental Quality
Remediation and Redevelopment Division
503 N. Euclid Avenue

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Coffey, Lisa

From: Sue Kaelber-Matlock [matlocks@michigan.gov]
Sent: Monday, December 18, 2006 9:58 AM
To: Lipson, David; Coffey, Lisa
Cc: Cheryl Hiatt; Renee Mietz; Allan Brouillet; Kent Bainbridge
Subject: GM SMI Semi Annual Groundwater Monitoring Report, Former UST#7 Area, Oct 31, 2006

To Cheryl Hiatt, Kent Bainbridge, Renee Mietz, Dave Lipson, and Lisa Coffey, The DEQ has received this report and concurs with the conclusions. It is acceptable to discontinue groundwater monitoring for the purpose of evaluating the Former UST#7 area at the BBL-MW4, MW135WT, and MW139WT locations. It is expected that the long-term monitoring of the groundwater in the area of Former UST#7 area will be incorporated into the Remedial Action Plan for this facility. In the interim, semi-annual groundwater monitoring should continue, as proposed, at locations BBL-MW1, UST7-2, UST7-3R, UST7-4, and UST7-5. Please let me know if you
have any questions. Sue

Sue Kaelber-Matlock
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Remediation and Redevelopment Division
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Coffey, Lisa

From: Sue Kaelber-Matlock [matlocks@michigan.gov]
Sent: Tuesday, June 19, 2007 4:04 PM
To: Coffey, Lisa; Cheryl Hiatt; Kent Bainbridge
Cc: Allan Brouillet; Brenda Brouillet; Rhonda Klann
Subject: Manganese samples in surficial soils west of the SMI facilityin Saginaw, MI

Attachments: smi mn results.pdf; smi May 21.doc




smi mn results.pdf (105 KB) smi May 21.doc (32 KB)

The field notes and sample results from the 12 surficial soil samples taken on May 21, 2007, are attached. The field notes include the sample locations. The samples were analyzed by the DEQ laboratory. There were 9 samples taken west of the former railyard area at the SMI facility. The total manganese results for the samples located directly adjacent to the chainlink fence surrounding the SMI facility were 380 mg/kg, 220 mg/kg, and 460 mg/kg. The other 6 samples are from locations 1 to 2 city blocks away from the facility. The "background samples" taken from 3 locations south of the site off Washington St were 550 mg/kg, 480 mg/kg, and 290 mg/kg. The state-wide background for manganese is 440 mg/kg.

I will be participating on the conference call scheduled for tomorrow at 10am. Sue

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May 21, 2007 Field Notes
Clear, cool, about 60 degrees, arrived on-site 10:30 am.

Took 12 surficial (about 1" deep) soil samples west of the SMI facility in Saginaw, MI. The samples will be analyzed for fine, coarse, and total manganese concentrations. Samples were taken in black topped 8 oz jars, 1 jar per location, and completely filled with soil. The vegetation was scraped away and the top 1" of soil put in the jar. A new packaged plastic scoop was used for each location. The used scoops and packaging were disposed in the trash.

#1 Sample location was west of the GM fenceline, across Salt St from the corner of Salt and Stewart. Soil was gray brown silty material.

#2 Sample location was west of the GM fenceline, across Salt St from the corner of Salt and McGregor. Soil was gray brown silty material.

#3 Sample location was west of the GM fenceline, across Salt St from the corner of Salt and Vermont. Soil was gray brown silty material.

#4 Sample location was on southeast corner of Vermont and King. Soil was black silty fine sandy material.

#5 Sample location was on northeast corner of McGregor and King. Soil was black silty fine sandy material.

#6 Sample location was on northeast corner of Stewart and King. Soil was black silty fine sandy material.

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#7 Sample location was on northeast corner of Stewart and Niagara. Soil was black silty fine sandy material.

#8 Sample location was on northeast corner of McGregor and Niagara. Soil was black silty fine sandy material.

#9 Sample location was on northeast corner of Vermont and Niagara. Soil was black silty fine sandy material.

#10 Sample location was on the northwest corner of Washington and Elsie in south Saginaw. Sample was gray brown sandy silt.

#11 Sample location was on the southwest corner of Washington and Dayton in south Saginaw. Sample was gray brown sandy silt.

#12 Sample location was on the east side of Washington across from the corner of Washington and Banner in south Saginaw. Sample was gray brown sandy silt.

Left the site about 12:30.

The samples were put into a cooler with ice and transported to the DEQ lab on May 22, 2007, by Sue Kaelber-Matlock.

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ENVIRONMENTAL LABORATORY
P.O. Box 30270
Lansing, MI 48909
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FAX: (517) 335-9600

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Division: RRD
Report to: SUE KAELBER-MATLOCK
MDEQ-RRD-BAY CITY
SAGINAW BAY DISTRICT OFFICE
503 N. EUCLID AVE, STE 1, BAY CITY, MI 48706-2965

Total: $510.00

Lab Work Order # : 70500216
Work Site ID : 73000014
Site Name : SMI
Received: 05/22/2007
Reported: 06/19/2007
Collected By: SK-M

Samples Received :

No:	Sample ID	Sample Description	Matrix:	Collection Date
01	AA97709	#1	SEDIMENT	05/21/2007
02	AA97710	#2	SEDIMENT	05/21/2007
03	AA97711	#3	SEDIMENT	05/21/2007
04	AA97712	#4	SEDIMENT	05/21/2007
05	AA97713	#5	SEDIMENT	05/21/2007
06	AA97714	#6	SEDIMENT	05/21/2007
07	AA97715	#7	SEDIMENT	05/21/2007
08	AA97716	#8	SEDIMENT	05/21/2007
09	AA97717	#9	SEDIMENT	05/21/2007
10	AA97718	#10	SEDIMENT	05/21/2007
1	AA97719	#11	SEDIMENT	05/21/2007
12	AA97720	#12	SEDIMENT	05/21/2007

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I certify that the analysis performed by the MDEQ Environmental Laboratory are accurate and that the laboratory tests were conducted by methods approved by the U.S. Environmental Protection Agency and other appropriate regulatory agencies.

Bob Avery, Laboratory Director

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Sample AA97709 #1

CAS#	Analyte Name	Result	Unit	RL	Qualifier	Date Tested	Method	Analyst
7439-96-5	Manganese - Coarse	380	mg/Kg dry	1		06/15/2007	6010/6020	KS
7439-96-5	Manganese - Fine	310	mg/Kg dry	1		06/15/2007	6010/6020	KS
7439-96-5	Manganese - Total (Calc.)	380	mg/Kg dry	1		06/18/2007	6010/6020	KS
	% Total Solids	84.8	%	0.1		05/23/2007		DB
	Sieve Sediment- Fine and Coarse	Completed				06/08/2007		TK2

Sample AA97710 #2

CAS#	Analyte Name	Result	Unit	RL	Qualifier	Date Tested	Method	Analyst
7439-96-5	Manganese - Coarse	210	mg/Kg dry	1		06/15/2007	6010/6020	KS
7439-96-5	Manganese - Fine	260	mg/Kg dry	1		06/15/2007	6010/6020	KS
7439-96-5	Manganese - Total (Calc.)	220	mg/Kg dry	1		06/18/2007	6010/6020	KS
	% Total Solids	90.8	%	0.1		05/23/2007		DB
	Sieve Sediment- Fine and Coarse	Completed				06/08/2007		TK2

Sample AA97711 #3

CAS#	Analyte Name	Result	Unit	RL	Qualifier	Date Tested	Method	Analyst
7439-96-5	Manganese - Coarse	470	mg/Kg dry	1		06/15/2007	6010/6020	KS
7439-96-5	Manganese - Fine	290	mg/Kg dry	1		06/15/2007	6010/6020	KS
7439-96-5	Manganese - Total (Calc.)	460	mg/Kg dry	1		06/18/2007	6010/6020	KS
	% Total Solids	82.3	%	0.1		05/23/2007		DB
	Sieve Sediment- Fine and Coarse	Completed				06/08/2007		TK2

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Sample AA97712 #4

CAS#	Analyte Name	Result	Unit	RL	Qualifier	Date Tested	Method	Analyst
7439-96-5	Manganese - Coarse	230	mg/Kg dry	1		06/15/2007	6010/6020	KS
7439-96-5	Manganese - Fine	180	mg/Kg dry	1		06/15/2007	6010/6020	KS
7439-96-5	Manganese - Total (Calc.)	220	mg/Kg dry	1		06/18/2007	6010/6020	KS
	% Total Solids	93.8	%	0.1		05/23/2007		DB
	Sieve Sediment- Fine and Coarse	Completed				06/08/2007		TK2

Sample AA97713 #5

CAS#	Analyte Name	Result	Unit	RL	Qualifier	Date Tested	Method	Analyst
7439-96-5	Manganese - Coarse	670	mg/Kg dry	1		06/15/2007	6010/6020	KS
7439-96-5	Manganese - Fine	560	mg/Kg dry	1		06/15/2007	6010/6020	KS
7439-96-5	Manganese - Total (Calc.)	640	mg/Kg dry	1		06/18/2007	6010/6020	KS
	% Total Solids	90.6	%	0.1		05/23/2007		DB
	Sieve Sediment- Fine and Coarse	Completed				06/08/2007		TK2

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

Laboratory Contacts
Inorganic Unit Mgr: Sandy Gregg
Organic Unit Mgr: Carol Smith
Systems Mgmt Unit: George Krisztian

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Sample AA97714 #6

CAS#	Analyte Name	Result	Unit	RL	Qualifier	Date Tested	Method	Analyst
7439-96-5	Manganese - Coarse	1200	mg/Kg dry	1		06/15/2007	6010/6020	KS
7439-96-5	Manganese - Fine	1100	mg/Kg dry	1		06/15/2007	6010/6020	KS
7439-96-5	Manganese - Total (Calc.)	1200	mg/Kg dry	1		06/18/2007	6010/6020	KS
	% Total Solids	87.6	%	0.1		05/23/2007		DB
	Sieve Sediment- Fine and Coarse	Completed				06/08/2007		TK2

Sample AA97715 #7

CAS#	Analyte Name	Result	Unit	RL	Qualifier	Date Tested	Method	Analyst
7439-96-5	Manganese - Coarse	2600	mg/Kg dry	1		06/15/2007	6010/6020	KS
7439-96-5	Manganese - Fine	980	mg/Kg dry	1		06/15/2007	6010/6020	KS
7439-96-5	Manganese - Total (Calc.)	2100	mg/Kg dry	1		06/18/2007	6010/6020	KS
	% Total Solids	89.0	%	0.1		05/23/2007		DB
	Sieve Sediment- Fine and Coarse	Completed				06/08/2007		TK2

Sample AA97716 #8

CAS#	Analyte Name	Result	Unit	RL	Qualifier	Date Tested	Method	Analyst
7439-96-5	Manganese - Coarse	1000	mg/Kg dry	1		06/15/2007	6010/6020	KS
7439-96-5	Manganese - Fine	660	mg/Kg dry	1		06/15/2007	6010/6020	KS
7439-96-5	Manganese - Total (Calc.)	910	mg/Kg dry	1		06/18/2007	6010/6020	KS
	% Total Solids	88.2	%	0.1		05/23/2007		DB
	Sieve Sediment- Fine and Coarse	Completed				06/08/2007		TK2

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Sample AA97717 #9

CAS#	Analyte Name	Result	Unit	RL	Qualifier	Date Tested	Method	Analyst
7439-96-5	Manganese - Coarse	350	mg/Kg dry	1		06/15/2007	6010/6020	KS
7439-96-5	Manganese - Fine	370	mg/Kg dry	1		06/15/2007	6010/6020	KS
7439-96-5	Manganese - Total (Calc.)	360	mg/Kg dry	1		06/18/2007	6010/6020	KS
	% Total Solids	72.9	%	0.1		05/23/2007		DB
	Sieve Sediment- Fine and Coarse	Completed				06/08/2007		TK2

Sample AA97718 #10

CAS#	Analyte Name	Result	Unit	RL	Qualifier	Date Tested	Method	Analyst
7439-96-5	Manganese - Coarse	620	mg/Kg dry	1		06/15/2007	6010/6020	KS
7439-96-5	Manganese - Fine	380	mg/Kg dry	1		06/15/2007	6010/6020	KS
7439-96-5	Manganese - Total (Calc.)	550	mg/Kg dry	1		06/18/2007	6010/6020	KS
	% Total Solids	87.3	%	0.1		05/23/2007		DB
	Sieve Sediment- Fine and Coarse	Completed				06/08/2007		TK2

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ND : Not Detected

ug / L : microgram / liter (ppb)
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Sample AA97719 #11

CAS#	Analyte Name	Result	Unit	RL	Qualifier	Date Tested	Method	Analyst
7439-96-5	Manganese - Coarse	510	mg/Kg dry	1		06/15/2007	6010/6020	KS
7439-96-5	Manganese - Fine	340	mg/Kg dry	1		06/15/2007	6010/6020	KS
7439-96-5	Manganese - Total (Calc.)	480	mg/Kg dry	1		06/18/2007	6010/6020	KS
	% Total Solids	83.3	%	0.1		05/23/2007		DB
	Sieve Sediment- Fine and Coarse	Completed				06/08/2007		TK2

Sample AA97720 #12

CAS#	Analyte Name	Result	Unit	RL	Qualifier	Date Tested	Method	Analyst
7439-96-5	Manganese - Coarse	300	mg/Kg dry	1		06/15/2007	6010/6020	KS
7439-96-5	Manganese - Fine	240	mg/Kg dry	1		06/15/2007	6010/6020	KS
7439-96-5	Manganese - Total (Calc.)	290	mg/Kg dry	1		06/18/2007	6010/6020	KS
	% Total Solids	86.3	%	0.1		05/23/2007		DB
	Sieve Sediment- Fine and Coarse	Completed				06/08/2007		TK2

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Qualifier Code	Qualifier Description
1	Result(s) and RL(s) are estimated due to low surrogate recovery.
2	Result is estimated due to high surrogate recovery.
3	Result(s) and RL(s) are estimated due to low matrix spike recovery.
4	Result is estimated due to high matrix spike recovery.
5	Result and RL are estimated due to low continuing calibration standard criteria failure.
6	Result is estimated due to high continuing calibration standard criteria failure.
7	Result(s) and RL(s) are estimated due to poor precision.
8	Result(s) and RL(s) are estimated due to low recovery of batch QC.
9	Result outside QC acceptance criteria.
A	Value reported is the mean of two or more determinations.
C	Value calculated from other independent parameters.
D	Analyte value quantified from a dilution(s); reporting limit (RL) raised.
E	Result is estimated due to high recovery of batch QC.
F	Amenable cyanide was not analyzed due to low level of total cyanide.
G	Result and RL are estimated due to initial calibration standard criteria failure.
H	Recommended laboratory holding time was exceeded.
I	Dilution required due to matrix interference; reporting limit (RL) raised.
J	Analyte was positively identified. Value is an estimate.
JA	Result is estimated due to multiple Aroclors present.
JC	Result is estimated since confirmation analysis did not meet acceptance criteria
JD	Due to severe degradation, specific Aroclor identification is difficult and quantitation is estimated.
K	RL(s) raised due to matrix interferences.
KR	RL(s) raised due to low sample volume submitted.
KS	RL(s) raised due to low total solids.
KW	RL(s) raised due to light sample weight.
LB	Reported library search compounds are tentative identifications with estimated concentrations.
M	The level of the method preparation blank (MPB) is reported in the qualifier column.
N	Non-homogeneous sample made analysis of sample questionable.
O	Result and RL estimated due to analysis from an open vial.
P	Recommended sample collection/preservation technique not used; reported result(s) is an estimate.
Q	Quantity of sample insufficient to perform analyses requested.
R	Result confirmed by re-extraction and analysis.
S	Supernatant analyzed.
T	Reported value is less than the reporting limit (RL). Result is estimated.
V	Value not available due to dilution.
W	Reported value is less than the method detection limit (MDL).
X	Methods 8260 & 624 are used to analyze volatile organics that have boiling points below 200°C. 2-Methylnaphthalene & naphthalene have boiling points above 200°C and are better suited to analysis by methods 8270 or 625 as semivolatile organics.
PI	Possible interference may have affected the accuracy of the laboratory result
Z	Result reported below the RL to meet the TDL in RRD Op Memo 2 (10/22/04) multiplied by applicable dilution factor.

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Ms. Brenda Brouillet
District Supervisor
Remediation and Redevelopment Division
Michigan Department of Environmental Quality
503 North Euclid Avenue
Bay City, MI 48706

Industrial

Subject:
Work Plan (Revision 1) for Additional Site Investigation for Remedial Action Plan
GM Saginaw Malleable Iron (SMI) Plant and Green Point Landfill (GPLF) Site
Saginaw, Michigan

Date:
July 24, 2007

Contact:
Lisa R. Coffey

Phone:
315.671.9164

Email:
lisa.coffey@arcadis-us.com

Our ref:
B0027608 #2.04

Dear Ms. Brouillet:

The following Work Plan has been developed in response to Michigan Department of Environmental Quality (MDEQ) comments on the revised Site Remedial Action Plan, presented in correspondence dated May 18, 2006. Additional investigation activities have been incorporated with the monitoring activities described in the Summary Operations and Maintenance Plan (O&M Plan) that was submitted to MDEQ as part of the Remedial Action Work Plan dated September 23, 2005. Based on MDEQ comments, additional monitoring wells will be installed along the Saginaw River, and the Greenpoint Landfill and Saginaw River Boundary monitoring programs will be expanded during the next two monitoring events to include additional monitoring wells and monitoring parameters. Table 1 presents a summary of the proposed sampling program. The new sampling components, added in response to MDEQ comments, are shown in bold.

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Greenpoint Landfill Monitoring

In attachment 3 of the May 18, 2006 MDEQ Comment Letter, Comment 5B outlines the specific additional activities associated with Greenpoint Landfill Monitoring Activities that MDEQ is requesting. At MDEQ's request, a minimum of two additional monitoring wells (and up to four monitoring wells, depending on the thickness of the lower sand unit) will be installed, and the groundwater-monitoring program will be

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expanded for the next two monitoring events to include additional monitoring wells and analytical parameters.

Monitoring Well Installation

The overburden deposits at the SMI Plant and GPLF Site are comprised of the following primary units, in descending order:

- fill materials consisting primarily of foundry sand, glaciolacustrine silts and clay ("upper silty clay unit"),
- a sand unit that grades coarser with depth and divides toward the Saginaw River into two separate units ("upper sand unit" and "lower sand unit"), separated by a silty clay unit ("middle silty clay unit"), glaciolacustrine silty clay ("lower silty clay unit"), and
- glacial till.

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Several figures from the Remedial Investigation (RI) Report illustrate subsurface conditions in the vicinity of the Green Point Landfill, and are provided as attachments to this Work Plan. RI Figure 3-1 is a cross-section location map, and Cross-Sections C-C' (RI Figure 3-4) and F-F' (RI Figure 3-7) are constructed from north to south along the river and from west to east south of the Green Point Landfill, respectively. In comment 5B of Attachment 3 of the May 18, 2006 MDEQ response letter, MDEQ requested that monitoring wells be installed in the lower portion of the sand unit along the Saginaw River, east of the Green Point Landfill. Two new monitoring wells will be installed (X-4D and X-9D) at the base of the lower sand unit at existing well cluster locations X-4 and X-9. If greater than 12 feet of saturated sand are present within the lower sand unit, two additional monitoring wells (X-4E and X-9E) will be installed at the top of this unit. Sampling data from the new wells screened in the lower sand unit will supplement data obtained from the existing wells that screen the upper sand unit. The monitoring wells will be installed using rotosonic or large diameter auger drilling methods and soil cores will be recovered continuously as the

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borings are advanced. The soil will be described and screened using a photoionization detector (PID). No soil samples will be collected for laboratory analysis.

The monitoring wells will be constructed of 2-inch inside diameter, Schedule 40, machine slotted polyvinyl chloride (PVC). It is anticipated that the screen length will be five-feet. A sand pack will be installed from the base of the well screen to approximately two feet above the top of the well screen. The remaining annular space will be grouted to the ground surface. The monitoring wells will be completed with stick-up protective well casings.

The monitoring wells will be allowed to sit for a minimum of 24 hours to allow the grout to set prior to development to remove sediment. An elevation survey of the new monitoring wells will be completed relative to the National Geodetic Vertical Datum (NGVD) of 1929. The elevation of the ground surface, and top of the inner casing of the wells will be measured to the nearest 0.01 feet.

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Greenpoint Landfill Groundwater Sampling

The monitoring wells included in the Green Point Monitoring Program are listed in Table 1 and shown on Figure 1. Groundwater monitoring activities described in the O&M Plan include the following activities:

- collecting groundwater elevation measurements at monitoring wells on an annual basis in proximity to the Green Point Landfill to allow construction of a water table contour map.
- collecting and analyzing groundwater samples annually from each of 13 groundwater monitoring wells (MW-117WT, MW-117S1, MW-118WT, MW-118S1, MW-128WT, MW-128S1, X-1A, X-1B, X-1CR2, X-2A, X-10AR2, X-16A, and X-16B; Figure 1).

Supplemental groundwater monitoring activities were completed in December 2006 to provide additional data in response to MDEQ comments and to guide the

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development of additional monitoring activities that are described in this Work Plan. These data are discussed in the Environmental Program Annual Report for the Green Point Landfill, dated July 2007. Evaluation of the data shows that the principle analytes that have been detected in the vicinity of the landfill consist of the inorganic parameters. PCBs were detected above the drinking water criterion at the X-1 monitoring well cluster in 1995; however, the criterion was not exceeded during two subsequent monitoring events in 1996 and 2000. PCBs have not been detected at the other groundwater monitoring wells in the vicinity of the GPLF. Benzene and vinyl chloride have been detected above the Industrial Drinking Water (IDW) criterion at individual monitoring wells; however, the data have shown localized, consistent concentrations with no evidence of migration. As a result, analyses for PCBs at all of the monitored locations will be eliminated. TCL VOC and SVOC analyses will also be eliminated at all of the monitored locations with the exception of the new wells to be installed near the river.

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In response to MDEQ comment 5B, the following additional sampling activities will be conducted:

- Sampling of the new monitoring wells to be installed along the river (two to four new wells to be installed depending on the thickness of the lower sand unit). These samples will be analyzed for Target Compound List (TCL) volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), total and dissolved Target Analyte List (TAL) metals, and landfill indicator parameters (dissolved cyanide, total dissolved solids [TDS], pH, chloride, sulfate, nitrate [as N], nitrite [as N], and ammonia nitrogen). Two rounds of groundwater sampling will be conducted. Following the first round of sampling, the analytical data will be reviewed and if no VOCs or SVOCs are detected, these parameters will be dropped from the sampling program.

- Sampling of 13 groundwater monitoring wells not included in the annual Green Point Landfill monitoring program (MW-117S2, MW-118S2, X-2B, X-2C, X-2DAUG, X-4A, X-4CAUG [replacement], X-9AR, X-9BR, X-9CAUG, X-10BR, X-

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10CR, and X-10DAUG) and analysis of the samples for dissolved TAL inorganics and the landfill indicator parameters during two sampling rounds.

Although MDEQ requested four quarterly sampling events, we believe that the proposed sampling program, in combination with the supplemental sampling completed in December 2006, will allow for adequate characterization of groundwater quality in the lower sand unit. The data collected to date show minimal variation over time. If, based on future data, it appears that more information is needed (e.g. unexpected variability of the results), additional sampling will be proposed.

The depth to water at each of the monitoring wells will be measured to the nearest 0.01 foot using an electronic water level probe. Prior to the collection of groundwater samples, each monitoring well will be purged using ultra-low-flow sampling procedures until the field parameters (pH, dissolved oxygen, conductivity, temperature, turbidity, and oxidation reduction potential) have stabilized. Groundwater samples will be collected in bottleware supplied by the lab and will be analyzed by Severn Trent Laboratories (STL), located in North Canton, Ohio. The analytical methods that will be used for laboratory analysis of the groundwater samples are as follow:

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- TCL VOCs (Method 8260B)
- TCL SVOCs (Method 8270)
- target analyte list (TAL) dissolved inorganics (Methods 6010B and 7470A)
- target analyte list (TAL) total inorganics (Methods 6010B and 7470A) (Well Clusters X-4 and X-9 only)
- dissolved cyanide (Method 9012A)
- total dissolved solids (TDS) (Method 160.1)
- pH (Method 150.1)
- chloride (Method 300.0A)
- sulfate (Method 300.0A)
- nitrate (as N) (Method 300.0A)

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- nitrite (as N) (Method 300.0A)
- nitrogen, ammonia (Method 350.3)

Saginaw River Berm Sampling

In attachment 3 of the May 18, 2006 MDEQ Comment Letter, Comment 5C outlines MDEQ requests for additional activities associated with Saginaw River Boundary Monitoring Activities. As outlined in the O&M Plan, the monitoring program was developed to address the sporadic detection of PCBs, arsenic manganese, and thallium at concentrations above Groundwater/Surface Water Interface (GSI) criteria along the Saginaw River at seven monitoring well locations (B-7R, MW-110WTR (replacing MW-110WT), MW-111WT, MW-112WT, MW-114WT, and MW-185WT). At MDEQ's request, monitoring well MW-107WT will also be added to the monitoring program.

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Unfiltered groundwater samples will be collected using ultra-low-flow sampling methods for laboratory analysis. Prior to the collection of groundwater samples, the monitoring wells will be purged at a rate of less than 100 milliliters per minute until the field parameters (pH, dissolved oxygen, conductivity, temperature, and oxidation reduction potential) have stabilized and the turbidity is less than 2 nephelometric turbidity units (NTUs). GM may also decide to analyze both filtered and unfiltered samples for PCBs and inorganic constituents to evaluate particulate impacts on the data. Groundwater samples will be collected in bottleware supplied by the lab. The sampling list varies for the individual wells, as shown in Table 1. The following analyses will be completed at one or more of the Saginaw River Berm wells.

- PCBs (total and dissolved) (Method 8082)
- target compound list (TCL) semi-volatile organic compounds (SVOCs) (Method 8270)
- ammonia (Method 350.3)
- phosphorus (Method 365)
- total dissolved solids (TDS) (Method 160.1)

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- total arsenic (Methods 6010B)
- total thallium (Methods 6010B)
- total manganese (Methods 6010B)
- dissolved oxygen

Table 1 details the sampling parameters for each monitoring well in the monitoring program and the monitoring well locations are shown on Figure 1.

Railyard Sampling

In comment 1 of Attachment 3 of the May 18, 2006 MDEQ RAP response letter, delineation of manganese in surface soil north-west of the Site, into a residential area was requested. MDEQ sampled surface soil in the area north-west of the Site on May 21, 2007. The results of this sampling showed no exceedances of the Residential Particulate Inhalation Criterion (RPIC) in any of the samples. In addition, the concentrations of manganese found in samples collected adjacent to the Site were lower than the concentrations detected in the majority of the samples collected at greater distances from the Site. Therefore, no additional soil sampling for manganese is proposed.

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Groundwater Elevation Monitoring

In attachment 3 of the May 18, 2006 MDEQ Comment Letter, Comment 7, MDEQ requested that site-wide groundwater contour maps be included in the annual monitoring reports. Included in Table 1 is a list of monitoring wells to be included in the groundwater elevation monitoring program. Based on field observations of monitoring well conditions, alternative monitoring wells may be proposed for the monitoring program.

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Monitoring Well Abandonment

In attachment 3 of the May 18, 2006 MDEQ Comment Letter, Comment 6, MDEQ requested that all monitoring wells not included in monitoring programs be abandoned. Table 2 includes a list of monitoring wells that are candidates for well abandonment. The monitoring well abandonment will not be scheduled until the first groundwater elevation monitoring event has been completed to ensure that the remaining monitoring locations will be adequate. The monitoring wells will be abandoned by over drilling wherever practical, to remove well construction materials and grouted to the ground surface. It is anticipated that the presence of overhead power lines at several monitoring well locations may present a health and safety concern related to the operation of a drill rig. At these locations, the monitoring wells will be tremie-grouted in place, and the surface completions will be removed.

QA/QC Samples

Quality Assurance (QA) and Quality Control (QC) samples will consist of matrix spikes (MS) and matrix spike duplicate (MSD), field duplicates, rinse blanks, and trip blanks. One set of QA/QC samples will be collected for every twenty field samples and one trip blank will be submitted with every cooler containing VOCs samples, in accordance with the Site Quality Assurance Project Plan.

Investigation Derived Waste (IDW)

The investigation derived waste will include soil cuttings from monitoring well installation, development water, purge water, and decontamination water. The soil cuttings will be distributed at the ground surface adjacent to the corresponding well location, unless there is visual evidence of contamination. Any decontamination water that contains solvents will be containerized and transported to the onsite LNAPL recovery and groundwater treatment system located south of the plant building for treatment. The development water and the purge water will be discharged to the ground surface, unless there is visual evidence of contamination (e.g., sheen, high PID reading).

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Based on your June 22, 2007, electronic mail approval of the proposed well installation scope of work, we expect to complete the well installation activities this week. Following your approval of this work plan, we will schedule the remaining field activities. The analytical data will be reported to the MDEQ in the monthly reports, following completion of data validation and will be summarized in a letter report following completion of the Work Plan activities. Please contact Cheryl Hiatt at 248-753-5799 with any questions or comments.

Sincerely,

ARCADIS of New York, Inc.

Lisa R. Coffey
Associate/Senior Geologist II

Enclosures:
Table 1 Groundwater Monitoring Summary Table
Table 2 Proposed Monitoring Wells to be Abandoned
Figure 1 Monitoring Well Location Map
RI Figure 3-1 Cross Section Location Map
RI Figure 3-4 Geologic Cross Section C-C'
RI Figure 3-7 Geologic Cross Section F-F'

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TABLE 1. Groundwater Monitoring Summary Table,
Saginaw Malleable Iron Plant, Geenn Point Landfill, and Drum Remediation Area, Saginaw, Michigan

Site Area/Monitoring Program	Monitoring Well	Monitoring Activities	Frequency
Saginaw River Boundary	B-7R	PCBs (total and dissolved), ammonia, phosphorus, DO, TDS, and **total manganese**	Annual
	MW-110WTR	PCBs (total and dissolved, ammonia, phosphorus, DO, TDS, total manganese,	Annual
	MW-111WT	PCBs (total and dissolved), DO, ammonia, phosphorus, DO, TDS, and total manganese	Annual
	MW-112WT	PCBs (total and dissolved), DO, ammonia, phosphorus, TDS, **total manganese** and thallium	Annual
	MW-114WT	PCBs (total and dissolved), ammonia, phosphorus, DO, TDS, and **total manganese**	Annual
	MW-185WT	PCBs (total and dissolved), ammonia, phosphorus, DO, TDS, and **total manganese**	Annual
	MW-149WT	Ammonia, phosphorus, DO, total arsenic, total thallium, and total manganese	Annual
	MW-108WT	TCL SVOCs, ammonia, phosphorus, DO, TDS, total thallium, and total manganese	Annual
	X-4AR	Total thallium, total manganese, TDS, and DO	Annual
	MW-107WT	**Ammonia, phosphorus, DO, total arsenic, total manganese, and total thallium**	Annual
DRA/Former Hillock Area	TMMW-1	TCL VOCs and TAL Inorganics	Annual
	X-15AR	TCL VOCs and TAL Inorganics	Annual
	MW-122WT	TCL VOCs and TAL Inorganics	Annual
LNAPL Assessment and Remediation Area	MW-147WT	Groundwater and LNAPL (if present) level only	Quarterly
	MW-158WT	Groundwater and LNAPL (if present) level only	Quarterly
	MW-160WT	Groundwater and LNAPL (if present) level only	Quarterly
	MW-168WT	**Groundwater and LNAPL (if present) level only**	Quarterly
	MW-169WT	Groundwater and LNAPL (if present) level only	Quarterly
	MW-172WT	Groundwater and LNAPL (if present) level only	Quarterly
	MW-178WT	Groundwater and LNAPL (if present) level only	Quarterly
	MW-180WT	**Groundwater and LNAPL (if present) level only**	Quarterly
	RW-1	Groundwater and LNAPL (if present) level only	Quarterly
	RW-2	Groundwater and LNAPL (if present) level only	Quarterly
	RW-3	Groundwater and LNAPL (if present) level only	Quarterly
	TP-2	Groundwater and LNAPL (if present) level only	Quarterly
Quench Pit Area	QPTW-01	Groundwater and LNAPL (if present) level only	Quarterly
	QPTW-02	Groundwater and LNAPL (if present) level only	Quarterly
	QPTW-03	Groundwater and LNAPL (if present) level only	Quarterly
	QPTW-04	Groundwater and LNAPL (if present) level only	Quarterly
	QPTW-05	Groundwater and LNAPL (if present) level only	Quarterly
	QPTW-10	Groundwater and LNAPL (if present) level only	Quarterly
	QPTW-13	Groundwater and LNAPL (if present) level only	Quarterly

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TABLE 1. Groundwater Monitoring Summary Table,
Saginaw Malleable Iron Plant, Geenn Point Landfill, and Drum Remediation Area, Saginaw, Michigan

Site Area/Monitoring Program	Monitoring Well	Monitoring Activities	Frequency
Green Point Landfill	**MW-117WT**	Dissolved TAL metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and **ammonia nitrogen.**	Annual
	MW-117S1	Dissolved TAL metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and **ammonia nitrogen.**	Annual
	MW-117S2	**Dissolved TAL metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and ammonia nitrogen.**	Two additional sampling rounds - Fall 2007 and Spring 2008 (tentative schedule; pending MDEQ approval of Work Plan)
	MW-118WT	Dissolved TAL metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and **ammonia nitrogen.**	Annual
	MW-118S1	Dissolved TAL metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and **ammonia nitrogen.**	Annual
	MW-118S2	**Dissolved TAL metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and ammonia nitrogen.**	Two additional sampling rounds - Fall 2007 and Spring 2008 (tentative schedule; pending MDEQ approval of Work Plan)
	MW-128WT	Dissolved TAL metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and ammonia nitrogen.	Annual
	MW-128S1	Dissolved TAL metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and ammonia nitrogen.	Annual
	X-1A	Dissolved TAL metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and ammonia nitrogen.	Annual
	X-1B	Dissolved TAL metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and ammonia nitrogen.	Annual
	X-1CR2	Dissolved TAL metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and ammonia nitrogen.	Annual
	X-2A	Dissolved TAL metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and ammonia nitrogen.	Annual
	X-2B	**Dissolved TAL metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and ammonia nitrogen.**	Two additional sampling rounds - Fall 2007 and Spring 2008 (tentative schedule; pending MDEQ approval of Work Plan)
	X-2C	**Dissolved TAL metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and ammonia nitrogen.**	Two additional sampling rounds - Fall 2007 and Spring 2008 (tentative schedule; pending MDEQ approval of Work Plan)
	X-2DAUG	**Dissolved TAL metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and ammonia nitrogen.**	Two additional sampling rounds - Fall 2007 and Spring 2008 (tentative schedule; pending MDEQ approval of Work Plan)

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TABLE 1. Groundwater Monitoring Summary Table,
Saginaw Malleable Iron Plant, Geenn Point Landfill, and Drum Remediation Area, Saginaw, Michigan

Site Area/Monitoring Program	Monitoring Well	Monitoring Activities	Frequency
Green Point Landfill cont.	X-4A	Total and dissolved TAL metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and ammonia nitrogen.	Two additional sampling rounds - Fall 2007 and Spring 2008 (tentative schedule; pending MDEQ approval of Work Plan)
	X-4CAUG [replacement well proposed]	Total and dissolved TAL metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and ammonia nitrogen.	Two additional sampling rounds - Fall 2007 and Spring 2008 (tentative schedule; pending MDEQ approval of Work Plan)
	X-4D [proposed]	TCL VOCs, TCL SVOCs, total and dissolved TAL metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and ammonia nitrogen.	Two additional sampling rounds - Fall 2007 and Spring 2008 (tentative schedule; pending MDEQ approval of Work Plan). TCL VOCs and SVOCs will not be included in second sampling round if no VOCs or SVOCs are detected during the first round.
	X-4E [proposed]	TCL VOCs, TCL SVOCs, total and dissolved TAL metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and ammonia nitrogen.	Two additional sampling rounds - Fall 2007 and Spring 2008 (tentative schedule; pending MDEQ approval of Work Plan). TCL VOCs and SVOCs will not be included in second sampling round if no VOCs or SVOCs are detected during the first round.
	X-9AR	Total and dissolved TAL metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and ammonia nitrogen.	Two additional sampling rounds - Fall 2007 and Spring 2008 (tentative schedule; pending MDEQ approval of Work Plan)
	X-9BR	Total and dissolved TAL metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and ammonia nitrogen.	Two additional sampling rounds - Fall 2007 and Spring 2008 (tentative schedule; pending MDEQ approval of Work Plan)
	X-9CAUG	Total and dissolved TAL metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and ammonia nitrogen.	Two additional sampling rounds - Fall 2007 and Spring 2008 (tentative schedule; pending MDEQ approval of Work Plan)
	X-9D [proposed]	TCL VOCs, TCL SVOCS, total and dissolved TAL metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and ammonia nitrogen.	Two additional sampling rounds - Fall 2007 and Spring 2008 (tentative schedule; pending MDEQ approval of Work Plan). TCL VOCs and SVOCs will not be included in second sampling round if no VOCs or SVOCs are detected during the first round.
	X-9E [proposed]	TCL VOCs, TCL SVOCs, total and dissolved TAL metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and ammonia nitrogen.	Two additional sampling rounds - Fall 2007 and Spring 2008 (tentative schedule; pending MDEQ approval of Work Plan). TCL VOCs and SVOCs will not be included in second sampling round if no VOCs or SVOCs are detected during the first round.
	X-10AR2	Dissolved TAL metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and ammonia nitrogen.	Annual
	X-10BR	Dissolved TAL metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and ammonia nitrogen.	Two additional sampling rounds - Fall 2007 and Spring 2008 (tentative schedule; pending MDEQ approval of Work Plan)
	X-10CR	Dissolved TAL metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and ammonia nitrogen.	Two additional sampling rounds - Fall 2007 and Spring 2008 (tentative schedule; pending MDEQ approval of Work Plan)

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TABLE 1. Groundwater Monitoring Summary Table,
Saginaw Malleable Iron Plant, Geenn Point Landfill, and Drum Remediation Area, Saginaw, Michigan

Site Area/Monitoring Program	Monitoring Well	Monitoring Activities	Frequency
Green Point Landfill cont.	**X-10DAUG**	**Dissolved TAL metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and ammonia nitrogen.**	Two additional sampling rounds - Fall 2007 and Spring 2008 (tentative schedule; pending MDEQ approval of Work Plan)
	X-16A	Dissolved TAL metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and ammonia nitrogen.	Annual
	X-16B	Dissolved TAL metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and ammonia nitrogen.	Annual
	MW-2A	Water level only	Annual
	MW-2B	Water level only	Annual
	MW-2CAUG	Water level only	Annual
	MW-122S1	Water level only	Annual
	MW-122S2	Water level only	Annual
	MW-123WT	Water level only	Annual
	MW-123S1	Water level only	Annual
	MW-124WT	Water level only	Annual
	MW-124S1	Water level only	Annual
	MW-125WT	Water level only	Annual
	MW-144WT	Water level only	Annual
	MW-183WT	Water level only	Annual
	TW-241	Water level only	Annual
	TW-242	Water level only	Annual
	X-15BR	Water level only	Annual
Former UST -7 Area	UST7-2	BTEX	Annual
	UST7-3R	BTEX	Annual
	UST7-4	BTEX	Annual
	UST7-5	BTEX	Annual
	BBL-MW-1	BTEX	Annual
Site Wide Groundwater	B-3R	Water level only	Annual
Elevation Monitoring	B-3BAUG	Water level only	Annual
	B-5R	Water level only	Annual
	B-5BAUG	Water level only	Annual
	B-5CAUG	Water level only	Annual
	MW-103S1	Water level only	Annual
	MW-103S2	Water level only	Annual
	MW-103WT	Water level only	Annual

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TABLE 1. Groundwater Monitoring Summary Table,
Saginaw Malleable Iron Plant, Geenn Point Landfill, and Drum Remediation Area, Saginaw, Michigan

Site Area/Monitoring Program	Monitoring Well	Monitoring Activities	Frequency
Site Wide Groundwater	MW-105S1	Water level only	Annual
Elevation Monitoring	MW-105S2	Water level only	Annual
	MW-105WT	Water level only	Annual
	MW-108S1	Water level only	Annual
	MW-108S2	Water level only	Annual
	MW-108S3	Water level only	Annual
	MW-108S4	Water level only	Annual
	MW-111S1	Water level only	Annual
	MW-111S2	Water level only	Annual
	MW-111S3	Water level only	Annual
	MW-111S4	Water level only	Annual
	MW-114SI	Water level only	Annual
	MW-114S2	Water level only	Annual
	MW-114S3	Water level only	Annual
	MW-114S4	Water level only	Annual
	MW-129WT	Water level only	Annual
	MW-131S1	Water level only	Annual
	MW-131S2	Water level only	Annual
	MW-131WT	Water level only	Annual
	MW-134S1	Water level only	Annual
	MW-134S2	Water level only	Annual
	MW-134WT	Water level only	Annual
	MW-137WT	Water level only	Annual
	MW-138WT	Water level only	Annual
	MW-140S1	Water level only	Annual
	MW-140S2	Water level only	Annual
	MW-140WT	Water level only	Annual
	MW-143WT	Water level only	Annual

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Notes:
Bolded text indicates a change from the RAP, as requested by MDEQ.
Monitoring in the Quench Pit area and LNAPL recovery area located south of the plant will be restricted during demolition activities.
BTEX = Benzene, Toluene, Ethylbenzene, and Xylene (total).
DO = Dissolved Oxygen.
PCBs = Polychlorinated Biphenyls.
SVOCs = Semi-Volatile Organic Compounds.
TAL = Target Analyte List .
TCL= Target Compounds List.
TDS = Total Dissolved Solids.
VOCs = Volatile Organic Compounds.

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TABLE 2. Proposed Monitoring Wells to be Abandoned, Saginaw Malleable Iron Plant, Green Point Landfill, and Drum Remediation Area, Saginaw, Michigan

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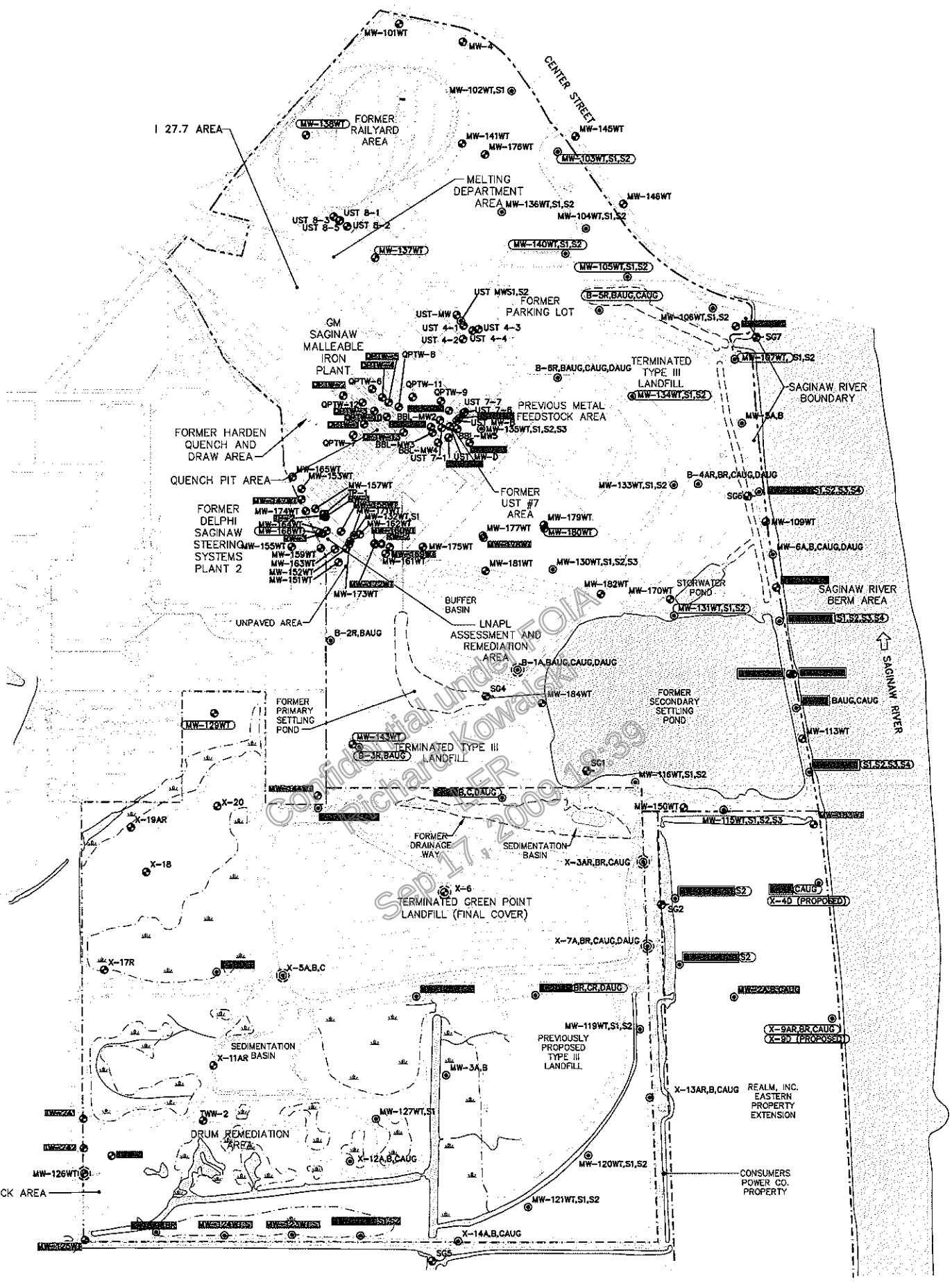
B-2R	MW-113WT	MW-145WT	X-14B
B-2BAUG	MW-115WT	MW-146WT	X-14CAUG
B-4AR	MW-115S1	MW-150WT	X-17R
B-4BR	MW-115S2	MW-151WT	X-18
B-4CAUG	MW-115S3	MW-152WT	X-19AR
B-4DAUG	MW-116WT	MW-153WT	UST1-MW
B-6R	MW-116S1	MW-155WT	UST1-MWS1
B-6BAUG	MW-116S2	MW-157WT	UST1-MWS2
B-6CAUG	MW-119WT	MW-159WT	UST-MWB
B-6DAUG	MW-119S1	MW-161WT	UST8-1
B-7BAUG	MW-119S2	MW-162WT	UST8-2
B-7CAUG	MW-120WT	MW-163WT	UST8-3
BBL-MW-3	MW-120S1	MW-164WT	UST8-5
BBL-MW-4	MW-120S2	MW-165WT	UST 4-1
BBL-MW-2	MW-121WT	MW-170WT	UST 4-2
MW-3A	MW-121S1	MW-171WT	UST 4-3
MW-3B	MW-121S2	MW-173WT	UST 4-4
MW-4	MW-127WT	MW-174WT	QPTW-8
MW-5A	MW-127S1	MW-175WT	QPTW-9
MW-5B	MW-130WT	MW-176WT	QPTW-11
MW-6A	MW-130S1	MW-177WT	QPTW-16
MW-6B	MW-130S2	MW-179WT	QPTW-12
MW-6CAUG	MW-130S3	MW-181WT	QPTW-7
MW-6DAUG	MW-132WT	MW-182WT	QPTW-7-6
MW-101WT	MW-132S1	X-7A	QPTW-7-7
MW-102WT	MW-133WT	X-7BR	TP-1
MW-102S1	MW-133S1	X-7CAUG	MW-184WT
MW-104WT	MW-133S2	X-7DAUG	TWW-2
MW-104S1	MW-135WT	X-11AR	X-20
MW-104S2	MW-135S1	X-12AR	BBL-MW2
MW-106WT	MW-135S2	X-12B	BBL-MW3
MW-106S1	MW-135S3	X-12CAUG	BBL-MW4
MW-106S2	MW-136WT	X-13AR	BBL-MW5
MW-107S1	MW-136S1	X-13B	UST7-1
MW-107S2	MW-136S2	X-13CAUG	UST7-3
MW-109WT	MW-141WT	X-14A	UST7-6

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PROJECTNAME: ----
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27608X01



LEGEND:

- GM SAGINAW MALLEABLE IRON PLANT PROPERTY LINE (APPROX.)
- REALM, INC. PROPERTY LINE (APPROX.)
- UNPAVED ROAD
- GROUND SURFACE ELEVATION CONTOUR (10 FT INTERVAL)
- FENCE LINE
- SWAMPY AREA
- MW-125WT — MONITORING WELL
- MW-2A,B,CAUG — MONITORING WELL CLUSTER
- SG5 — STAFF GAUGE
- TP-1 — PIEZOMETER
- RW-1 — RECOVERY WELL
- X-6 — ABANDONED MONITORING WELL
- X-5A,B,C — ABANDONED MONITORING WELL CLUSTER

DRAFT RAP (9/23/05) MONITORING PROGRAM

- SAMPLING AND GROUNDWATER ELEVATION MEASUREMENT LOCATION
- LNAPL AND/OR GROUNDWATER ELEVATION MEASUREMENT LOCATION

PROPOSED ADDITIONS TO MONITORING PROGRAM

- SAMPLING AND GROUNDWATER ELEVATION MEASUREMENT LOCATION
- LNAPL AND/OR GROUNDWATER ELEVATION MEASUREMENT LOCATION
- ANALYTICAL PARAMETERS ADDED

0 300' 600'
GRAPHIC SCALE

NOTES:

1. THIS PHOTOGRAMMETRIC BASE MAP FOR THE GM SAGINAW MALLEABLE IRON PLANT AND DELPHI SAGINAW STEERING SYSTEMS PLANT 2 PROPERTIES WAS PREPARED BY LOCKWOOD MAPPING, INC. OF ROCHESTER, NEW YORK. AERIAL PHOTOGRAPHY WAS CONDUCTED ON 11/11/94. ORIGINAL LOCKWOOD MAP WAS AT A SCALE OF 1"=100' AND WAS INTERPRETED FOR TWO-FOOT CONTOURS.
2. BASE MAP HAS BEEN MODIFIED TO INCORPORATE BUFFER BASIN, SEDIMENTATION BASINS, WETLANDS MITIGATION AREA, AND GREEN POINT LANDFILL (GPL) FINAL COVER FROM THE FINAL ENGINEERING DESIGN REPORT PREPARED BY BBL FOR THE GPL, DATED JANUARY 1998.
3. VERTICAL DATUM REFERENCED TO NGVD OF 1929, HORIZONTAL DATUM REFERENCED TO MICHIGAN SPC-NAD 1983.
4. PROPERTY BOUNDARY FOR REALM, INC. DIGITIZED FROM SPICER GROUP DRAWING NO. A-21854-1, DATED 3/27/98.
5. BASE MAP INFORMATION SOUTH OF MAIN REALM, INC. PROPERTY LINE FROM AIR-LAND SURVEYS, INC. PHOTO DATE 11/90, MAPPING DATE 10/91.

SAGINAW MALLEABLE IRON PLANT PROPERTY, GREEN POINT LANDFILL, AND DRUM REMEDIATION AREA SAGINAW, MICHIGAN

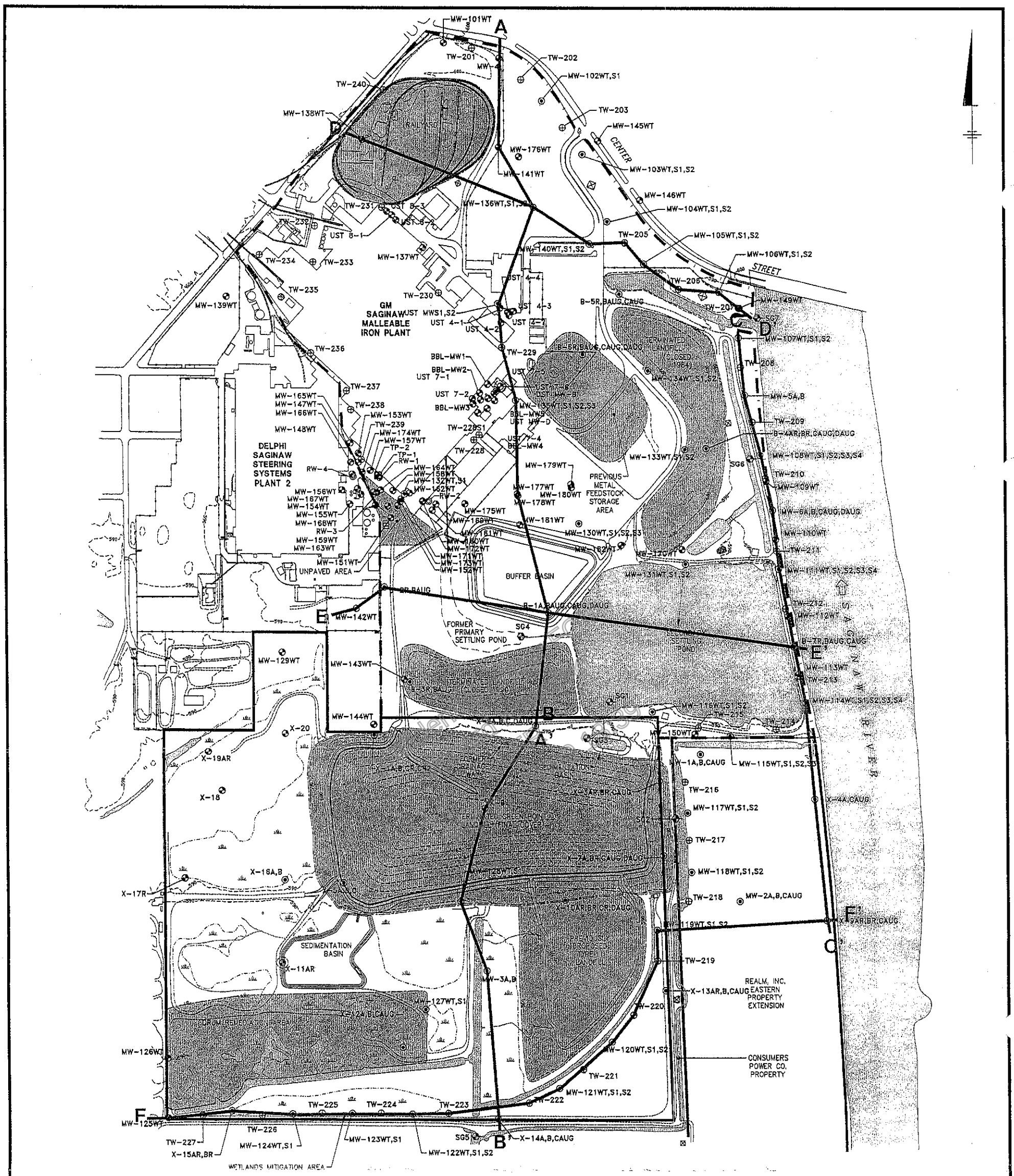
MONITORING WELL LOCATION MAP

ARCADIS BBL
infrastructure, environment, facilities

FIGURE 1

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LEGEND

- GM SAGINAW MALLEABLE IRON PLANT PROPERTY LINE (APPROX.)
- REALM, INC. PROPERTY LINE (APPROX.)
- UNPAVED ROAD
- GROUND SURFACE ELEVATION CONTOUR (10 FT INTERVAL)
- FENCE LINE
- SWAMPY AREA
- MW-4 — MONITORING WELL
- MW-102WT,S1 — MONITORING WELL CLUSTER
- TW-203 — TEMPORARY MONITORING WELL
- SG5 — STAFF GAUGE
- TP-2 — PIEZOMETER
- RW-4 — RECOVERY WELL
- X-11AR — ABANDONED MONITORING WELL
- A—A' — CROSS SECTION LOCATION

X: 27608X01.DWG
L: ON=*, OFF=REF
P: HP-BLGM.PCP
11/9/00 SYR-54-GMS
27608090/SMI-RI/27608G01.DWG

NOTES:

1. THIS PHOTOGRAMMETRIC BASE MAP FOR THE GM SAGINAW MALLEABLE IRON PLANT AND DELPHI SAGINAW STEERING SYSTEMS PLANT 2 PROPERTIES WAS PREPARED BY LOCKWOOD MAPPING, INC. OF ROCHESTER, NEW YORK. AERIAL PHOTOGRAPHY WAS CONDUCTED ON 11/11/94. ORIGINAL LOCKWOOD MAP WAS AT A SCALE OF 1"=100' AND WAS INTERPRETED FOR TWO-FOOT CONTOURS.
2. SAMPLING LOCATIONS SURVEYED BY ATWELL-HICKS, INC. UTICA, MICHIGAN, FILE NO. M1014SU2, FILE DATE 3/22/96, REVISED 8/8/96, OR SPICER GROUP.
3. VERTICAL DATUM REFERENCED TO NGVD OF 1929, HORIZONTAL DATUM REFERENCED TO MICHIGAN SPC-NAD 1983.
4. BASE MAP HAS BEEN MODIFIED TO INCORPORATE BUFFER BASIN, SEDIMENTATION BASINS, WETLANDS MITIGATION AREA, AND GREEN POINT LANDFILL (GPL) FINAL COVER FROM THE FINAL ENGINEERING DESIGN REPORT PREPARED BY BBL FOR THE GPL, DATED JANUARY 1998.
5. PROPERTY BOUNDARY FOR REALM, INC. DIGITIZED FROM SPICER GROUP DRAWING NO. A-21854-1, DATED 3/27/98.

SCALE:
500' 0 500'

SAGINAW MALLEABLE IRON PLANT PROPERTY,
GREEN POINT LANDFILL,
AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

REMEDIAL INVESTIGATION

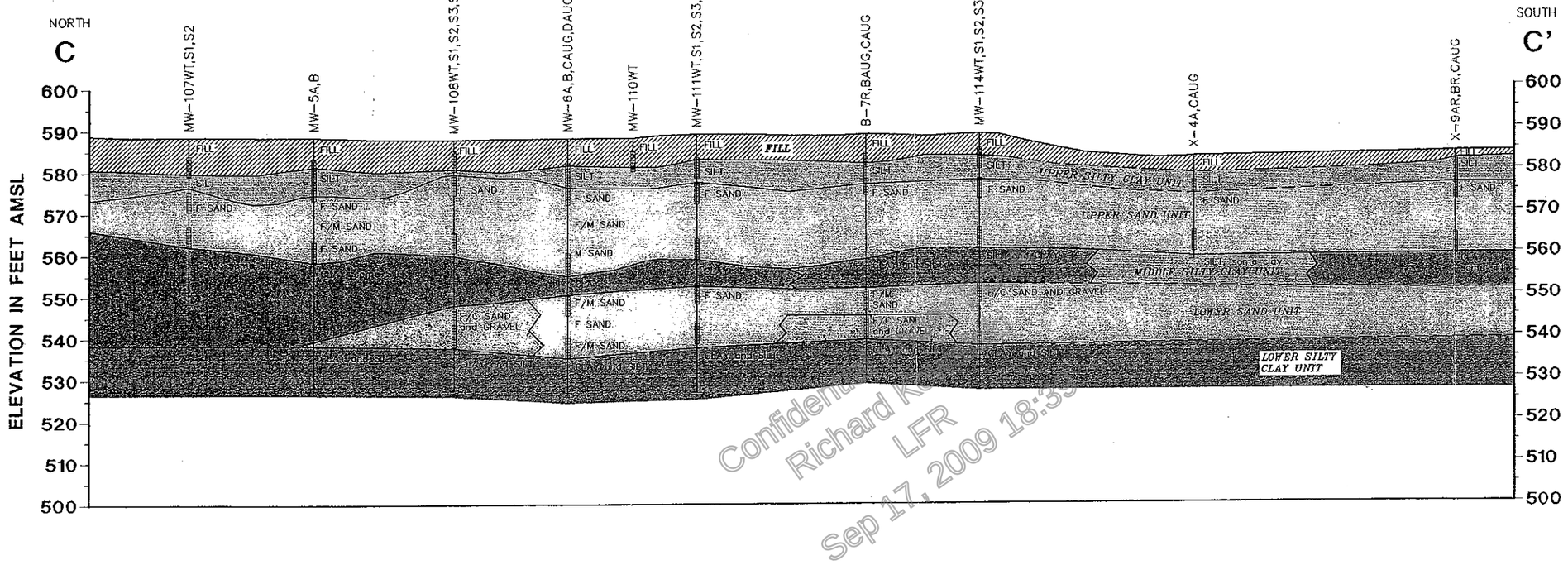
CROSS SECTION LOCATION MAP

BBL BLASLAND, BOUCK & LEE, INC. engineers & scientists

FIGURE 3-1

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LEGEND

X-4A,CAUG — WELL NUMBER

MONITORING WELL

SCREENED INTERVAL

BOTTOM OF BORING

- FILL
- CLAY
- SILT AND CLAY
- SILT
- SAND
- SAND AND GRAVEL

NOTES:

1. GEOLOGIC INTERPRETATION DEVELOPED BY BBL, INC. USING DATA FROM SITEWIDE RI/FS.
2. ALL ELEVATIONS IN FEET ABOVE MEAN SEA LEVEL (AMSL) RELATIVE TO NGVD OF 1929.
3. F, M, C = FINE, MEDIUM, COARSE.
4. TEMPORARY WELLS NOT SHOWN.

HORIZONTAL SCALE:
300' 0 300'

SAGINAW MALLEABLE IRON PLANT PROPERTY,
GREEN POINT LANDFILL,
AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

REMEDIAL INVESTIGATION

GEOLOGIC CROSS SECTION C-C'

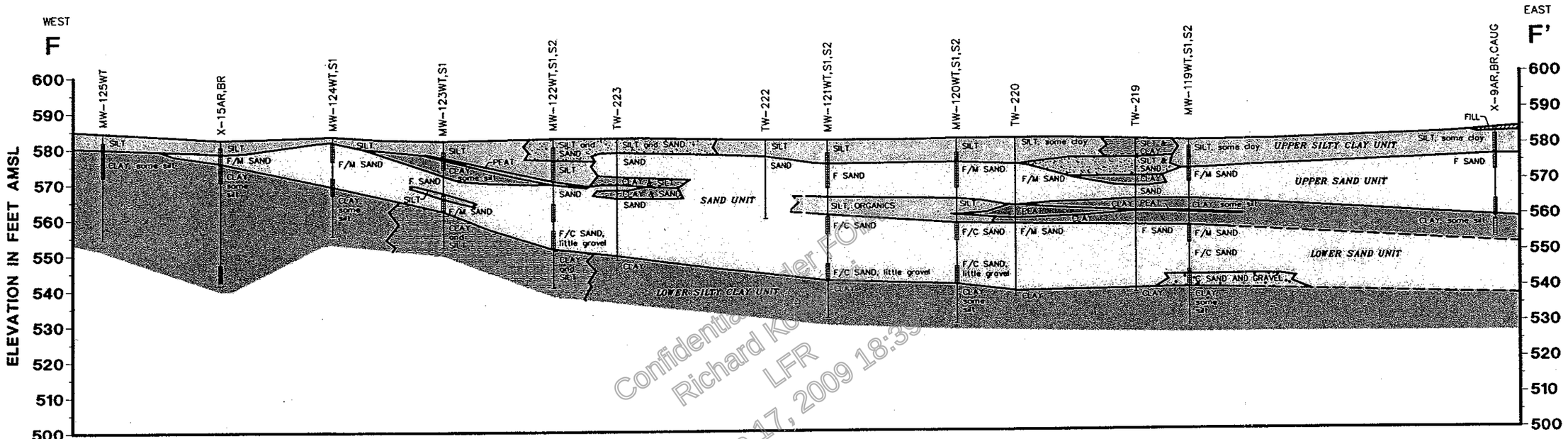
BBL BLASLAND, BOUCK & LEE, INC. engineers & scientists

FIGURE 3-4

L: ON=*, OFF=REF
P: STD BL.PCP
11/10/00 SYR-54-GMS RCA
27608090/SMI-RI/27608V03.DWG

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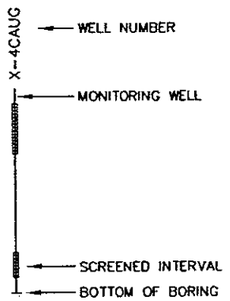
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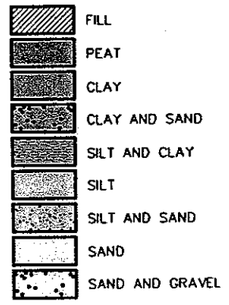


NOTES:

1. GEOLOGIC INTERPRETATION DEVELOPED BY BBL, INC. USING DATA FROM SITEWIDE RI/FS.
2. ALL ELEVATIONS IN FEET ABOVE MEAN SEA LEVEL (AMSL) RELATIVE TO NGVD OF 1929.
3. F, M, C = FINE, MEDIUM, COARSE.

LEGEND





HORIZONTAL SCALE:
300' 0 300'

SAGINAW MALLEABLE IRON PLANT PROPERTY,
GREEN POINT LANDFILL,
AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

REMEDIAL INVESTIGATION

GEOLOGIC CROSS SECTION F-F'

BBL BLASLAND, BOUCK & LEE, INC. engineers & scientists

FIGURE 3-7

L: ON=*, OFF=REF
P: STD-PCP/BL_PCP
11/10/00 SYR-54-GMS RCA
27608090/SMI-RI/27608V06.DWG

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276.08
#3.04

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
SAGINAW BAY DISTRICT OFFICE

JENNIFER M. GRANHOLM
GOVERNOR

STEVEN E. CHESTER
DIRECTOR

October 16, 2007

CERTIFIED MAIL

Ms. Cheryl Hiatt
Environmental Project Manager
General Motors Corporation
Remediation Services, MC 483-520-190
2000 Centerpoint Parkway
Pontiac, Michigan 48341

Dear Ms. Hiatt:

SUBJECT: Workplan (Revision 1) for Additional Site Investigation –
Remedial Action Plan, July 24, 2007
Environmental Monitoring Program Annual Report, July 25, 2007
Saginaw Malleable Iron Plant/Green Point Landfill
Consent Judgment No. 98-22686-CE-2

The Department of Environmental Quality (DEQ), Remediation and Redevelopment Division (RRD), has received Revision 1 of the Workplan for Additional Site Investigation (Workplan), dated July 24, 2007, and the Environmental Monitoring Program Annual Report (Report), dated July 25, 2007. They were submitted by ARCADIS BBL on behalf of the liable party group (LPG) for the Saginaw Malleable Plant/Greenpoint Landfill (SMI) site located in Saginaw, Michigan.

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The Workplan is approved with modifications in accordance with Section XV of the Consent Judgment No. 98-22686-CE-2 (Consent Judgment).

- The installation of the two new wells, X-4D and X-9D, was approved by electronic mail addressed to you on June 22, 2007. The soil boring/well logs for the two new wells and one replacement well, X-4CAUG, was received in the August 2007 Monthly Report, dated September 12, 2007.

- The parameter list for the analysis of groundwater from the Groundwater-Surface Water Interface (GSI) well locations adjacent to the Saginaw River must include the polychlorinated biphenyl compounds (PCBs), semivolatile organic compounds (SVOCs), and volatile organic compounds (VOCs) from the Target Compound List (TCL), as well as the Target Analyte List (TAL) metals, and the landfill indicator parameters. The Greenpoint Landfill is being proposed for closure without a leachate collection and treatment system, and consequently some long-term GSI monitoring will be required adjacent to the surface water bodies.

- As requested in the May 19, 2006 correspondence to you, four rounds of quarterly groundwater sampling will be needed from the two new wells to determine seasonal variation.

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- Groundwater from MW183-WT should be sampled for the landfill indicator parameters as it is downgradient from the landfill and those parameters are being found in significant concentrations adjacent to the Saginaw River.

- Surface water elevation measurements of the Saginaw River and Secondary Pond must be included on the shallow groundwater elevation maps that are submitted as part of the Groundwater Elevation Monitoring.

- The Workplan indicates a Table of wells proposed for abandonment. We believe that most of the wells should be left in place until the final RAP has been approved. Please identify any wells that need to be abandoned in order to demolish the building.

- The RRD staff were on-site at Delphi on October 12, 2007, and found the wells installed by General Motors as part of the free product investigation at SMI. These wells must be included on the appropriate maps.

- In addition to these comments, please understand that any Part 201 Remedial Action Plan (RAP) for a former landfill must be equivalent to all relevant and appropriate requirements of Part 115, Solid Waste, of the Natural Resources and Environmental Protection Act. The RAP for the closed landfill must address performance standards, including but not limited to:

    - Design, construct, and maintain a landfill cap that mitigates infiltration and promotes stormwater control.

    - Design, construct, and operate a system that reduces and maintains leachate levels in the waste disposal area and prevents lateral and vertical migration of the leachate.

    - Design, construct, and operate a groundwater collection system as necessary to prevent unacceptable exposures outside the property boundary.

    - Design, construct, and operate a landfill gas venting system that collects and treats all landfill gas migrating from the waste disposal area.

    - Mitigate exposure to any hazardous substance present in concentrations greater than the applicable criteria.

    - Assure long term effectiveness of remediation activities contained in the RAP through implementation of land use and/or resource use restrictions, approvable groundwater and gas monitoring plans, operation and maintenance plans, and the use of permanent markers.

    - Propose an acceptable financial assurance mechanism.

The RAP for this site must address the boundary area between the Delphi and SMI facilities. Part 20120(a) requires that contaminants in soil and groundwater must be at concentrations less than the generic residential criteria unless appropriate land use or resource use restrictions are placed on all impacted properties. In addition, the extent of dissolved contaminants, as well as separate phase materials, must be defined. It may be possible to show a divisibility of harm along the property boundary.

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Many of the concentrations of landfill indicator parameters detailed in the Report are significant. In order to provide more information regarding the equivalency requirements to the LPG, Saginaw Bay District staff expects to discuss the SMI site conditions, specifically what is needed to determine compliance of general chemistry and other parameters with GSI, with Lansing staff in the near future. We suggest that a meeting to discuss this and other pertinent issues be scheduled before the RAP submittal date.

Please contact me at 989-686-8025, extension 8303, or by electronic mail at matlocks@michigan.gov should you have any questions or concerns regarding the information presented in this letter.

Sincerely,

Sue Kaelber-Matlock, Senior Geologist
Saginaw Bay District Office
Remediation and Redevelopment Division
989-686-8025, Extension 8303

cc: John Fordell Leone, Esq., DAG
Anthony Thrubis, Esq., GM
Mr. Kent Bainbridge, WMI
Ms. Rachel Schneider, Quarles & Brady
Ms. Lisa Coffey, ARCADIS BBL

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ARCADIS BBL
Infrastructure, environment, facilities

ARCADIS of New York, Inc.
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P.O. Box 66
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New York 13214-0066
Tel 315.446.9120
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www.arcadis-us.com

INDUSTRIAL

Ms. Susan Kaelber-Matlock
Senior Geologist
Remediation and Redevelopment Division
Michigan Department of Environmental Quality
Saginaw Bay District Office
503 North Euclid Avenue, Suite 1
Bay City, MI 48706-2965

Subject:
Workplan (Revision 1) for Additional Site Investigation -
Remedial Action Plan, July 24, 2007
Environmental Monitoring Program Annual Report, July 25, 2007
Saginaw Malleable Iron Plant/Green Point Landfill
Consent Judgment No, 98-22686-CE-2

Date:
November 28, 2007

Contact:
Lisa R. Coffey

Phone:
315.671.9164

Email:
lisa.coffey@
arcadis-us.com

Our ref:
B0027608 #2.04

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Dear Ms. Kaelber-Matlock:

This letter has been prepared on behalf of the General Motors Corporation (GM) and Waste Management Inc. (WMI) to respond to the October 16, 2007, Michigan Department of Environmental Quality (MDEQ) letter, that provided comments on the July 24, 2007 Work Plan for Additional Site Investigation at the GM Saginaw Malleable Iron (SMI) Plant and the Green Point Landfill property, located in Saginaw, Michigan. The letter provided work plan approval, with modifications, and each of the requested modifications were identified in comments. Each MDEQ comment is reproduced below, followed by a response. As several of the comments were new or different from previous discussions, a meeting was held on November 5, 2007, between you, Mr. Allan Brouillet (MDEQ - ERD), Mr. Edward Peterson (GM), Ms. Cheryl Hiatt (GM), Mr. Kent Bainbridge (WMI), and Ms. Lisa Coffey (ARCADIS BBL) to discuss your letter. The responses given below reflect our understanding of the resolution of each comment, as discussed at the meeting.

MDEQ Comment 1:

The installation of the two new wells, X-4D and X-9D, was approved by electronic mail addressed to you on June 22,2007, The soil boring/well logs for the two new wells and one replacement well, X-4CAUG, was received in the August 2007 Monthly Report, dated September 12, 2007.

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GM/WMI Response:

No response is required.

MDEQ Comment 2:

The parameter list for the analysis of groundwater from the Groundwater-Surface Water Interface (GSI) well locations adjacent to the Saginaw River must include the polychlorinated biphenyl compounds (PCBs), semivolatile organic compounds (SVOCs), and volatile organic compounds (VOCs) from the Target Compound List (TCL), as well as the Target Analyte List (TAL) metals, and the landfill indicator parameters. The Greenpoint Landfill is being proposed for closure without a leachate collection and treatment system, and consequently some long-term GSI monitoring will be required adjacent to the surface water bodies.

GM/WMI Response:

We understand from our meeting on November 5th, that the monitoring wells referred to in this comment are the newly installed monitoring wells located adjacent to the Saginaw River. These wells are installed in the deeper sand unit, and although up-gradient data for the landfill do not suggest that some of the listed constituent groups are of concern, GM and WMI agree to sample these wells three times for the requested analytes. Table 1 has been edited to show that X-4D and X-9D will be sampled for PCBs, TCL VOCs, TCL SVOCs, total and dissolved TAL metals, and the landfill indicator parameters (total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and ammonia nitrogen. The sampling events are tentatively scheduled for early December 2007, early March 2008, and July 2008. Due to the scheduled submittal of the revised Remedial Action Plan (RAP) in May of 2008, the team recognizes that the third round of data will not be included in the RAP; however, the data will be considered during the RAP review process.

We recognize that monitoring of groundwater quality at wells located along the Saginaw River will be included in the Operation, Maintenance, and Monitoring (OM&M) Plan to be included with the RAP. The scope of the monitoring activities will be evaluated based on the collection of additional groundwater analytical data.

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MDEQ Comment 3:

As requested in the May 19, 2006 correspondence to you, four rounds of quarterly groundwater sampling will be needed from the two new wells to determine seasonal variation.

GM/WMI Response:

We agree to complete three rounds of sampling at the two new well locations, and we understand from discussions with you during our November 5th meeting, that this is acceptable to the MDEQ.

MDEQ Comment 4:

Groundwater from MW183-WT should be sampled for the landfill indicator parameters as it is downgradient from the landfill and those parameters are being found in significant concentrations adjacent to the Saginaw River.

GM/WMI Response:

Agreed.

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MDEQ Comment 5:

Surface water elevation measurements of the Saginaw River and Secondary Pond must be included on the shallow groundwater elevation maps that are submitted as part of the Groundwater Elevation Monitoring.

GM/WMI Response:

Agreed. A staff gauge will be installed in the Secondary Settling Pond if the previously existing gauge is not usable. From past experience, we know that a gauge placed in the Saginaw River is likely to be destroyed by ice during the winter. Therefore, to provide elevation data for the River, we propose to establish a survey reference point on the Center Street bridge, which is located at the northern end of the Site.

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MDEQ Comment 6:

The Workplan indicates a Table of wells proposed for abandonment. We believe that most of the wells should be left in place until the final RAP has been approved. Pléase identify any wells that need to be abandoned in order to demolish the building.

GM/WMI Response:

We would like to abandon all of the wells that are in close proximity to the plant building that are not anticipated to be needed for future monitoring. A list of wells proposed for abandonment is attached.

MDEQ Comment 7:

The RRD staff were on-site at Delphi on October 12, 2007, and found the wells installed by General Motors as part of the free product investigation at SMI. These wells must be included on the appropriate maps.

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GM/WMI Response:

We have identified seven monitoring/recovery wells located on the Former Delphi Plant 2 property that had been inadvertently omitted from the Work Plan figure (MW-148WT, MW-155WT, MW-156WT, MW-159WT, MW-166WT, MW-167WT, and RW-4). These wells will be added to future monitoring well location figures.

MDEQ Comment 8:

In addition to these comments, please understand that any Part 201 Remedial Action Plan (RAP) for a former landfill must be equivalent to all relevant and appropriate requirements of Part 115, Solid Waste, of the Natural Resources and Environmental Protection Act. The RAP for the closed landfill must address performance standards, including but not limited to:

- *Design, construct, and maintain a landfill cap that mitigates infiltration and promotes stormwater control.*

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- *Design, construct, and operate a system that reduces and maintains leachate levels in the waste disposal area and prevents lateral and vertical migration of the leachate.*

- *Design, construct, and operate a groundwater collection system as necessary to prevent unacceptable exposures outside the property boundary.*

- *Design, construct, and operate a landfill gas venting system that collects and treats all landfill gas migrating from the waste disposal area.*

- *Mitigate exposure to any hazardous substance present in concentrations greater than the applicable criteria.*

- *Assure long term effectiveness of remediation activities contained in the RAP through implementation of land use and/or resource use restrictions, approvable groundwater and gas monitoring plans, operation and maintenance plans; and the use of permanent markers.*

- *Propose an acceptable financial assurance mechanism.*

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GM/WMI Response:

Based on our discussions with you during our meeting on November 5, 2007, we understand that this comment was included based on recent discussions with MDEQ management in Lansing, to notify GM and WMI that a discussion should be added to the RAP regarding the performance standards of the Green Point Landfill cap system. We further understand that this comment was not included to suggest that additional remedial actions are required at the landfill, rather that text should be added to the RAP to better document the appropriateness of previous decisions. As discussed in our meeting, GM believes these issues had been discussed years ago, often with input and review by MDEQ staff associated with the solid waste regulations, and concurrence had been achieved. Additional text will be added to the RAP to describe the appropriateness of those previous decisions (e.g., design and construction of the cap, the absence of any leachate collection) or to clarify how some of the issues were accounted for in the RAP (e.g., financial assurance mechanism).

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MDEQ Comment 9:

The RAP for this site must address the boundary area between the Delphi and SMI facilities. Part 20120(a) requires that contaminants in soil and groundwater must be at concentrations less than the generic residential criteria unless appropriate land use or resource use restrictions are placed on all impacted properties. In addition, the extent of dissolved contaminants, as well as separate phase materials, must be defined. It may be possible to show a divisibility of harm along the property boundary.

GM/WMI Response:

The Former Delphi Plant 2 property is located to the west, and up-gradient of the Site. Impacts from the Delphi property to the SMI property have been documented in the Remedial Investigation and through ongoing monitoring in the LNAPL recovery area south of the main plant building. A technical memorandum presenting the results of an evaluation of light non-aqueous phase liquid (LNAPL) sources in this area was transmitted to you on January 12, 2005, and a copy (without attachments) is attached for your reference. This evaluation used analytical fingerprint analyses to compare the characteristics of LNAPL collected from several locations on the SMI property with LNAPL collected from several locations on the Delphi property. The conclusions of the evaluation are that the LNAPL observed on the Delphi property exhibits a different analytical signature than the LNAPL products sampled at SMI. In addition, the LNAPL found south of the SMI plant building, on GM property, is a likely mixture of LNAPLs that includes LNAPL from the Delphi property, indicating impacts from Delphi to the SMI property.

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In addition, groundwater impacts from the southern part of the Former Delphi Plant 2 property to the REALM Peninsula Area, and ultimately to the wetland located west of the Peninsula Area on the Green Point Landfill Property have been documented. These impacts need to be addressed by Delphi in the RAP prepared for the Plant 2 Property.

MDEQ Comment 10:

Many of the concentrations of landfill indicator parameters detailed In the Report are significant. In order to provide more information regarding the equivalency requirements to the LPG, Saginaw Bay District staff expects to discuss the SMI site conditions, specifically what is needed to determine compliance of general chemistry and other parameters with GSI, with Lansing staff In the near future, We suggest that

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a meeting to discuss this and other pertinent issues be scheduled before the RAP submittal date.

GM/WMI Response:

Based on our November 5, 2007, meeting discussions, we do not feel that an additional meeting with the Saginaw Bay District staff is required at this time. However, please let us know if you would like to schedule a second meeting that also involves Lansing staff. If you have any questions or would like to discuss any aspect of this letter, please contact Cheryl Hiatt at 248-753-5799.

Sincerely,

ARCADIS of New York, Inc.

Lisa Coffey (JAK)

Lisa R. Coffey
Sr. Geologist II

Copies:
John Fordell Leone, Esq., DAG
Ms. Cheryl Hiatt, GM
Mr. Ed Peterson, GM
Anthony Thrubis, Esq., GM
Jeffrey Braun, Esq., GM
Mr. Kent Bainbridge, WMI
Ms. Rachel Schneider, Quarles & Brady

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TABLE 1. Groundwater Monitoring Summary Table,
Saginaw Malleable Iron Plant, Geenn Point Landfill, and Drum Remediation Area, Saginaw, Michigan

Site Area/Monitoring Program	Monitoring Well	Monitoring Activities	Frequency
Saginaw River Boundary	B-7R	PCBs (total and dissolved), ammonia, phosphorus, DO, TDS, and **total manganese**	Annual
	MW-110WTR	PCBs (total and dissolved, ammonia, phosphorus, DO, TDS, total manganese,	Annual
	MW-111WT	PCBs (total and dissolved), DO, ammonia, phosphorus, DO, TDS, and total manganese	Annual
	MW-112WT	PCBs (total and dissolved), DO, ammonia, phosphorus, TDS, **total manganese** and thallium	Annual
	MW-114WT	PCBs (total and dissolved), ammonia, phosphorus, DO, TDS, and **total manganese**	Annual
	MW-185WT	PCBs (total and dissolved), ammonia, phosphorus, DO, TDS, and **total manganese**	Annual
	MW-149WT	Ammonia, phosphorus, DO, total arsenic, total thallium, and total manganese	Annual
	MW-108WT	TCL SVOCs, ammonia, phosphorus, DO, TDS, total thallium, and total manganese	Annual
	X-4AR	Total thallium, total manganese, TDS, and DO	Annual
	MW-107WT	**Ammonia, phosphorus, DO, total arsenic, total manganese, and total thallium**	Annual
DRA/Former Hillock Area	TMMW-1	TCL VOCs and TAL Inorganics	Annual
	X-15AR	TCL VOCs and TAL Inorganics	Annual
	MW-122WT	TCL VOCs and TAL Inorganics	Annual
LNAPL Assessment and Remediation Area	MW-147WT	Groundwater and LNAPL (if present) level only	Quarterly
	MW-158WT	Groundwater and LNAPL (if present) level only	Quarterly
	MW-160WT	Groundwater and LNAPL (if present) level only	Quarterly
	MW-168WT	**Groundwater and LNAPL (if present) level only**	Quarterly
	MW-169WT	Groundwater and LNAPL (if present) level only	Quarterly
	MW-172WT	Groundwater and LNAPL (if present) level only	Quarterly
	MW-178WT	Groundwater and LNAPL (if present) level only	Quarterly
	MW-180WT	**Groundwater and LNAPL (if present) level only**	Quarterly
	RW-1	Groundwater and LNAPL (if present) level only	Quarterly
	RW-2	Groundwater and LNAPL (if present) level only	Quarterly
	RW-3	Groundwater and LNAPL (if present) level only	Quarterly
	TP-2	Groundwater and LNAPL (if present) level only	Quarterly
Quench Pit Area	QPTW-01	Groundwater and LNAPL (if present) level only	Quarterly
	QPTW-02	Groundwater and LNAPL (if present) level only	Quarterly
	QPTW-03	Groundwater and LNAPL (if present) level only	Quarterly
	QPTW-04	Groundwater and LNAPL (if present) level only	Quarterly
	QPTW-05	Groundwater and LNAPL (if present) level only	Quarterly
	QPTW-10	Groundwater and LNAPL (if present) level only	Quarterly
	QPTW-13	Groundwater and LNAPL (if present) level only	Quarterly

See Notes on Page 5.

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TABLE 1. Groundwater Monitoring Summary Table,
Saginaw Malleable Iron Plant, Geenn Point Landfill, and Drum Remediation Area, Saginaw, Michigan

Site Area/Monitoring Program	Monitoring Well	Monitoring Activities	Frequency
Green Point Landfill	**MW-117WT**	Dissolved TAL metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and **ammonia nitrogen.**	Annual
	MW-117S1	Dissolved TAL metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and **ammonia nitrogen.**	Annual
	MW-117S2	**Dissolved TAL metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and ammonia nitrogen.**	**Two additional sampling rounds - December 2007 and early March 2008; based on the data, the well may be included in the annual groundwater monitoring event (to be defined in the OM&M Plan of the RAP).**
	MW-118WT	Dissolved TAL metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and **ammonia nitrogen.**	Annual
	MW-118S1	Dissolved TAL metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and **ammonia nitrogen.**	Annual
	MW-118S2	**Dissolved TAL metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and ammonia nitrogen.**	**Two additional sampling rounds - December 2007 and early March 2008; based on the data, the well may be included in the annual groundwater monitoring event (to be defined in the OM&M Plan of the RAP).**
	MW-128WT	Dissolved TAL metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and ammonia nitrogen.	Annual
	MW-128S1	Dissolved TAL metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and ammonia nitrogen.	Annual
	MW-183WT	**Dissolved TAL metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and ammonia nitrogen.** total TAL metals	**Two sampling rounds - December 2007 and early March 2008; based on the data, the well may be included in the annual groundwater monitoring event (to be defined in the OM&M Plan of the RAP).**
	X-1A	Dissolved TAL metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and ammonia nitrogen.	Annual
	X-1B	Dissolved TAL metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and ammonia nitrogen.	Annual
	X-1CR2	Dissolved TAL metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and ammonia nitrogen.	Annual
	X-2A	Dissolved TAL metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and ammonia nitrogen.	Annual
	X-2B	**Dissolved TAL metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and ammonia nitrogen.**	**Two additional sampling rounds - December 2007 and early March 2008; based on the data, the well may be included in the annual groundwater monitoring event (to be defined in the OM&M Plan of the RAP).**

See Notes on Page 5.

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TABLE 1. Groundwater Monitoring Summary Table,
Saginaw Malleable Iron Plant, Geenn Point Landfill, and Drum Remediation Area, Saginaw, Michigan

Site Area/Monitoring Program	Monitoring Well	Monitoring Activities	Frequency
	X-2C	Dissolved TAL metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and ammonia nitrogen.	Two additional sampling rounds - December 2007 and early March 2008; based on the data, the well may be included in the annual groundwater monitoring event (to be defined in the OM&M Plan of the RAP).
	X-2DAUG	Dissolved TAL metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and ammonia nitrogen.	Two additional sampling rounds - December 2007 and early March 2008; based on the data, the well may be included in the annual groundwater monitoring event (to be defined in the OM&M Plan of the RAP).
Green Point Landfill cont.	X-4A	Total and dissolved TAL metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and ammonia nitrogen.	Two additional sampling rounds - December 2007 and early March 2008; based on the data, the well may be included in the annual groundwater monitoring event (to be defined in the OM&M Plan of the RAP).
	X-4CAUGR	Total and dissolved TAL metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and ammonia nitrogen.	Two additional sampling rounds - December 2007 and early March 2008; based on the data, the well may be included in the annual groundwater monitoring event (to be defined in the OM&M Plan of the RAP).
	X-4D	PCBs, TCL VOCs, TCL SVOCs, total and dissolved TAL metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and ammonia nitrogen.	Three sampling rounds - December 2007, early March 2008, and July 2008; based on the data, the well may be included in the annual groundwater monitoring event (to be defined in the OM&M Plan of the RAP).
	X-9AR	Total and dissolved TAL metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and ammonia nitrogen.	Two additional sampling rounds - December 2007 and early March 2008; based on the data, the well may be included in the annual groundwater monitoring event (to be defined in the OM&M Plan of the RAP).
	X-9BR	Total and dissolved TAL metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and ammonia nitrogen.	Two additional sampling rounds - December 2007 and early March 2008; based on the data, the well may be included in the annual groundwater monitoring event (to be defined in the OM&M Plan of the RAP).
	X-9CAUG	Total and dissolved TAL metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and ammonia nitrogen.	Two additional sampling rounds - December 2007 and early March 2008; based on the data, the well may be included in the annual groundwater monitoring event (to be defined in the OM&M Plan of the RAP).
	X-9D	PCBs, TCL VOCs, TCL SVOCS, total and dissolved TAL metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and ammonia nitrogen.	Three sampling rounds - December 2007, early March 2008, and July 2008; based on the data, the well may be included in the annual groundwater monitoring event (to be defined in the OM&M Plan of the RAP).
	X-10AR2	Dissolved TAL metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and ammonia nitrogen.	Annual
	X-10BR	Dissolved TAL metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and ammonia nitrogen.	Two additional sampling rounds - December 2007 and early March 2008; based on the data, the well may be included in the annual groundwater monitoring event (to be defined in the OM&M Plan of the RAP).
	X-10CR	Dissolved TAL metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and ammonia nitrogen.	Two additional sampling rounds - December 2007 and early March 2008; based on the data, the well may be included in the annual groundwater monitoring event (to be defined in the OM&M Plan of the RAP).

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TABLE 1. Groundwater Monitoring Summary Table,
Saginaw Malleable Iron Plant, Geenn Point Landfill, and Drum Remediation Area, Saginaw, Michigan

Site Area/Monitoring Program	Monitoring Well	Monitoring Activities	Frequency
Green Point Landfill cont.	**X-10DAUG**	**Dissolved TAL metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and ammonia nitrogen.**	**Two additional sampling rounds - December 2007 and early March 2008; based on the data, the well may be included in the annual groundwater monitoring event (to be defined in the OM&M Plan of the RAP).**
	X-16A	Dissolved TAL metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and ammonia nitrogen.	Annual
	X-16B	Dissolved TAL metals, dissolved cyanide, total dissolved solids, pH, chloride, sulfate, nitrate (as N), nitrite (as N), and ammonia nitrogen.	Annual
	MW-2A	Water level only	Annual
	MW-2B	Water level only	Annual
	MW-2CAUG	Water level only	Annual
	MW-122S1	Water level only	Annual
	MW-122S2	Water level only	Annual
	MW-123WT	Water level only	Annual
	MW-123S1	Water level only	Annual
	MW-124WT	Water level only	Annual
	MW-124S1	Water level only	Annual
	MW-125WT	Water level only	Annual
	MW-144WT	Water level only	Annual
	MW-183WT	Water level only	Annual
	TW-241	Water level only	Annual
	TW-242	Water level only	Annual
	X-15BR	Water level only	Annual
Former UST -7 Area	UST7-2	BTEX	Annual
	UST7-3R	BTEX	Annual
	UST7-4	BTEX	Annual
	UST7-5	BTEX	Annual
	BBL-MW-1	BTEX	Annual
Site Wide Groundwater	B-3R	Water level only	Annual
Elevation Monitoring	B-3BAUG	Water level only	Annual
	B-5R	Water level only	Annual
	B-5BAUG	Water level only	Annual
	B-5CAUG	Water level only	Annual
	MW-103S1	Water level only	Annual
	MW-103S2	Water level only	Annual
	MW-103WT	Water level only	Annual

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TABL . Groundwater Monitoring Summary Table,
Saginaw Malleable Iron Plant, Geenn Point Landfill, and Drum Remediation Area, Saginaw, Michigan

Site Area/Monitoring Program	Monitoring Well	Monitoring Activities	Frequency
Site Wide Groundwater	MW-105S1	Water level only	Annual
Elevation Monitoring	MW-105S2	Water level only	Annual
	MW-105WT	Water level only	Annual
	MW-108S1	Water level only	Annual
	MW-108S2	Water level only	Annual
	MW-108S3	Water level only	Annual
	MW-108S4	Water level only	Annual
	MW-111S1	Water level only	Annual
	MW-111S2	Water level only	Annual
	MW-111S3	Water level only	Annual
	MW-111S4	Water level only	Annual
	MW-114SI	Water level only	Annual
	MW-114S2	Water level only	Annual
	MW-114S3	Water level only	Annual
	MW-114S4	Water level only	Annual
	MW-129WT	Water level only	Annual
	MW-131S1	Water level only	Annual
	MW-131S2	Water level only	Annual
	MW-131WT	Water level only	Annual
	MW-134S1	Water level only	Annual
	MW-134S2	Water level only	Annual
	MW-134WT	Water level only	Annual
	MW-137WT	Water level only	Annual
	MW-138WT	Water level only	Annual
	MW-140S1	Water level only	Annual
	MW-140S2	Water level only	Annual
	MW-140WT	Water level only	Annual
	MW-143WT	Water level only	Annual

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Notes:
Bolded text indicates a change from the RAP, as requested by MDEQ.
Monitoring in the Quench Pit area and LNAPL recovery area located south of the plant will be restricted during demolition activities.
OM&M Plan = Operations, Monitoring, and Maintenance Plan.
RAP = Remedial Action Plan.
BTEX = Benzene, Toluene, Ethylbenzene, and Xylene (total).
DO = Dissolved Oxygen.
PCBs = Polychlorinated Biphenyls.
SVOCs = Semi-Volatile Organic Compounds.
TAL = Target Analyte List .
TCL= Target Compounds List.
TDS = Total Dissolved Solids.
VOCs = Volatile Organic Compounds.

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Table 2. Proposed Monitoring Wells to be Abandoned Due to Plant Demolition Activities, Saginaw Malleable Iron Plant, Green Point Landfill, and Drum Remediation Area, Saginaw, Michigan

BBL-MW-2	MW-153WT	TP-1	UST-4-3
BBL-MW-3	MW-157WT	QPTW-6	UST-4-4
BBL-MW-4	MW-159WT	QPTW-7	UST-7-1
BBL-MW-5	MW-161WT	QPTW-8	UST-7-6
MW-132S1	MW-162WT	QPTW-9	UST-7-7
MW-132WT	MW-163WT	QPTW-11	UST-8-1
MW-135S1	MW-164WT	QPTW-12	UST-8-2
MW-135S2	MW-165WT	UST1-MW	UST-8-3
MW-135S3	MW-171WT	UST1-MWS1	UST-8-5
MW-135WT	MW-173WT	UST1-MWS2	UST-MW-B
MW-151WT	MW-174WT	UST-4-1	UST-MW-D
MW-152WT	MW-175WT	UST-4-2	

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Transmitted Via Postal Service

January 12, 2005

Ms. Susan Kaelber-Matlock
Senior Geologist
Remediation and Redevelopment Division
Michigan Department of Environmental Quality
Saginaw Bay District
503 North Euclid Ave.
Bay City, MI 48706

Re: GM Saginaw Malleable Iron Plant, Saginaw, Michigan
BBL Project #: 0644 644.34 #2.04

Dear Sue:

A memorandum is enclosed, which presents the results of an evaluation of light non-aqueous phase liquid (LNAPL) samples collected from locations on the General Motors Corporation (GM) Saginaw Malleable Iron property, and from the adjacent Delphi property.

Please contact me if you would like to discuss the enclosed data.

Sincerely,

BLASLAND, BOUCK & LEE, INC.

Lisa R. Coffey
Sr. Geologist II

LRC/
Enclosure: (1)

cc: Ms. Cheryl Hiatt, GM, WFG Remediation
Mr. Edward Peterson, GM, WFG Remediation
Ms. Jennifer Tegen/Mr. Joseph Toth, GM SMI
Mr. Dale Thrush, Delphi Automotive
Mr. Helder Costa, BBL

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MEMORANDUM

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To: Cheryl Hiatt, GM WFG

Date: 1/12/05

From: Helder Costa

cc: Edward Peterson, GM WFG
Jennifer Tegen/Joe Toth, GM SMI
Lisa Coffey, BBL

Re: Evaluation of LNAPL Sources – GM Saginaw Malleable Iron Plant

This memorandum describes the analyses and interpretation of data for a series of light-non-aqueous-phase liquid (LNAPL) samples recovered from monitoring wells associated with the Saginaw Malleable Iron (SMI) Plant property, located in Saginaw, Michigan. Figure 1 shows the site area and monitoring well locations. Table 1 lists the samples that have been collected and analyzed as part of this investigation. Laboratory sample identifiers are included in Table 1 to facilitate matching data in the attachments to sample locations.

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Table 1. List of LNAPL Samples and Analyses.

Sampling Location/Well	Sampling Date	TPH Analysis ID (Modified 8015)	Alkylated PAH and Biomarker Analysis ID (Modified 8270)
203S	3/10/2003	0303033-01	0303127-01
TP1	3/10/2003	0303033-02	0303127-02
TP2	3/10/2003	0303033-03	0303127-03
QO (quench oil)	3/10/2003	0303033-04	0303127-04
MW-147WT	7/1/2003	0307012-01 0312026-03	0307012-01
MW-157WT	7/1/2003	0307012-02 0312026-04	0307012-02
MW-148WT	12/3/2003	0312026-01	0401055-01
SP (stormwater pond)	3/22/2004	0403073-01	0403073-01

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Total Petroleum Hydrocarbon Fingerprint Analysis

The analysis of total petroleum hydrocarbons (TPH) following modified Method 8015 provides a "fingerprint" of the LNAPL. The analytical output (provided in Attachment 1 for all samples) is a gas chromatogram of the product between approximately the kerosene range and the residual range, and quantification of TPH concentration. The quantification of TPH concentration in NAPL was not a consideration in the forensic evaluation. Each sample was analyzed for the conventional TPH fingerprint. In addition, due to a laboratory error, the MW-147WT and MW-157WT LNAPLs were first analyzed for TPH with n-alkane quantification (included in Attachment 1 as 0307012-01 and -02), and then reanalyzed (0312026-03 and -04) for the more conventional TPH fingerprint, consistent with the remaining samples. The primary objective of the TPH analysis was to identify compositional features of the NAPLs, such as hydrocarbon range, product type (e.g., kerosene-range, diesel-range, lubricating/residual-range, etc.), and degree of weathering.

Comprehensive PAH Fingerprint Analysis

All LNAPL samples underwent PAH fingerprinting analysis, which generated concentration data for a comprehensive suite of constituents, including the alkylated homologue groups of major PAHs (e.g., alkylated naphthalenes, fluorenes), sulfur-containing heterocyclic compounds (e.g., alkylated dibenzothiophenes, naphthobenzothiophenes), and weathering-resistant polyalkane compounds (e.g., alkylated decalins). Including the alkylated homologue groups, the fingerprinting analysis encompasses up to several hundred hydrocarbon compounds, which are reported as 60 target "analytes" (including numerous multi-component homologue groups). The PAH analyses were performed using high-resolution gas chromatography/low-resolution mass spectrometry with selected ion monitoring (HRGC/LRMS-SIM). The method involves a modification of USEPA Method 8270C (SW-846) and is consistent with PAH fingerprinting methods and target constituents cited for the characterization of petroleum (Sauer and Boehm, 1991; Douglas et al, 1992; Brown and Boehm, 1993; Burns, 1993; Sauer and Boehm, 1995; Page et al., 1995; Stout et al., 2002) and other hydrocarbon NAPLs, such as coal tars and creosote (EPRI, 2000). The data are provided as quantification reports and composition histograms in Attachment 2. In addition to providing a comprehensive characterization of the aromatic fraction of petroleum, ratios of alkylated PAHs with similar weathering/degradation resistance have proven to be effective diagnostic indicators of petroleum source (Brown and Boehm, 1993; Page et al., 1995; Stout et al., 2002).

Geochemical Biomarkers Analysis

The modified Method 8270 analysis described above included monitoring ions 191 and 217 for steranes and triterpanes. These aliphatic compound classes are considered geochemical biomarkers because they are indicative of the source petroleum formation and are resistant to weathering and biodegradation alterations (Page et al., 1995; Sauer et al., 1993; Stout et al., 2002). From the selected ion profiles provided in Attachment 3 as the data from this analysis, one can see that these complex aliphatic compounds constitute some of the unresolved complex mixture (UCM) humps that are characteristic of various petroleum product TPH chromatograms (e.g., data in Attachment 1). The use of the geochemical biomarker data in this investigation is primarily qualitative, similar to the use of the TPH fingerprints. An important difference between the TPH fingerprints in Attachment 1 and the geochemical biomarker fingerprints in Attachment 3 is that the TPH fingerprints are more susceptible to weathering/degradation alterations than the biomarker fingerprints. This difference makes the biomarker fingerprints more useful for comparing potentially weathered/degraded NAPLs and/or residues.

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Results

The compositional characteristics for the LNAPLs analyzed in this investigation are summarized in Table 2.

Table 2. Summary of Compositional Characteristics.

Sampling Location/Well	TPH Fingerprint	PAH and Related Fraction	Geochemical Biomarkers
203S (suspected representative cutting oil)	$n\text{-}C_{15}$ - $n\text{-}C_{32}$ unresolved complex mixture hump (UCM); n-alkanes absent	Phenanthrenes, Naphthalenes, Fluorenes, Decalins prominent; moderately weathered	Cutting Oil pattern
TP1	$n\text{-}C_{15}$ - $n\text{-}C_{32}$ UCM; n-alkanes absent	Decalins, Fluorenes, Phenanthrenes prominent; moderately weathered	MW-147 pattern
TP2	$n\text{-}C_{15}$ - $n\text{-}C_{32}$ UCM; n-alkanes absent	Decalins, Fluorenes, Phenanthrenes prominent; moderately weathered	MW-147 pattern
QO (quench oil)	$n\text{-}C_{18}$ - $n\text{-}C_{32}$ UCM; $n\text{-}C_{15}$ through $n\text{-}C_{22}$ present	Decalins absent; Phenanthrenes, Fluorenes prominent; slightly weathered	Quench Oil pattern
MW-147WT	$n\text{-}C_{15}$ - $n\text{-}C_{32}$ UCM; n-alkanes absent	Phenanthrenes, Fluorenes, Decalins prominent; moderately weathered	MW-147 pattern
MW-157WT	$n\text{-}C_{15}$ - $n\text{-}C_{32}$ UCM; n-alkanes absent	Phenanthrenes, Naphthalenes, Fluorenes, Decalins prominent; slightly weathered	Cutting Oil pattern
MW-148WT	$n\text{-}C_{15}$ - $n\text{-}C_{32}$ UCM; n-alkanes absent	Phenanthrenes, Fluorenes, Naphthalenes, Decalins prominent; slightly weathered	Cutting Oil pattern
SP (stormwater pond)	$n\text{-}C_{15}$ - $n\text{-}C_{32}$ UCM; n-alkanes absent	Phenanthrenes, Decalins, Naphthalenes, Fluorenes prominent; slightly weathered	MW-147 pattern

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The TPH fingerprint analysis revealed chromatograms associated with middle-distillate-range petroleum, featuring UCM ranging from n-C_{15} to n-C_{32} without n-alkanes evident in any monitoring well or test pit samples; the quench oil sample included n-alkanes from n-C_{15} to n-C_{22}. As can be seen from the chromatograms in Attachment A, the quench oil sample UCM was shifted relative to the other samples (n-C_{18} to n-C_{32}), although weathering/degradation could account for the slight shift in the UCM. Thus, the TPH fingerprints did not lead to a forensic conclusion.

The alkylated PAH analysis revealed some homologue groups that were common to several samples. Although decalins are not aromatic compounds, they were analyzed quantitatively along with the alkylated PAH homologues and the several heterocyclic aromatic homologue groups (e.g., dibenzothiophenes). The absence of decalins in the quench oil sample was a distinguishing feature from all other LNAPLs which contained measurable concentrations of decalins. The absence of decalins in the quench oil eliminates the possibility of quench oil as a single, or even primary source of the LNAPL recovered from TP1 and TP2.

Ratios of alkylated dibenzothiophenes to corresponding phenanthrenes-plus-anthrences have been used as effective source markers for middle-distillate-range petroleum and crude oil (e.g., Brown and Boehm, 1993; Sauer et al., 1993; Page et al., 1995). Figure 1 illustrates three apparent source groupings for the LNAPL samples in this investigation. The "cutting oil signature group" is so designated because 203S is presumed to contain cutting oil from operations at the Delphi plant. The LNAPL from MW-147WT exhibited much different PAH source ratios than the other samples and may indicate an unidentified source, despite that well's proximity to MW-157WT, TP1 and TP2 on the SMI property. The quench oil, TP1, TP2, SP, and MW-157WT all exhibited similar PAH ratios in Figure 1. However, the absence of the aliphatic decalins in the quench oil, as noted above, indicated a different or additional NAPL source to TP1 and TP2. Thus, the PAH signatures associated with TP1, TP2, SP and MW-157WT may have resulted from 1) a mixture of cutting oil and the NAPL at MW-147WT, 2) a mixture of cutting oil and quench oil, 3) a mixture of quench oil and the NAPL at MW-147WT, or 4) a mixture of cutting oil, quench oil and the NAPL at MW-147WT.

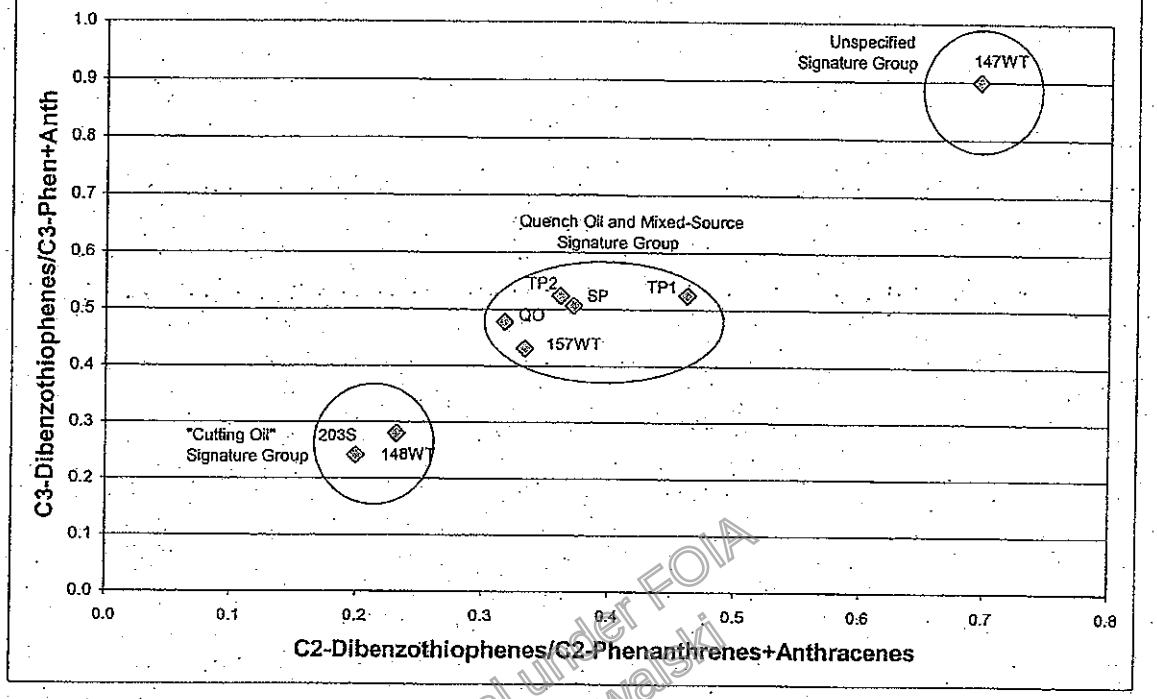
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The geochemical biomarker chromatograms (Attachment 3) may be used for qualitative identification. The "patterns" designated in Table 2 refer to the peaks that appear for ions 191 and 217, their relative heights, and the general shape of the UCM. In Table 2, a similar pattern, designated "cutting oil pattern," was observed for LNAPLs 203S, MW-148WT, and MW-157WT; a similar pattern, designated "MW-147," was observed for MW-147WT, TP1, TP2, and SP; and a third different pattern was observed for the quench oil. The biomarker scans, in combination with the diagnostic PAH ratios in Figure 1 suggested that the cutting oil and the LNAPL at MW-147WT contribute to the NAPL in the TP1, TP2, SP and MW-157WT cluster. It is possible, based on the PAH ratios in Figure 1, that some quench oil may have also contributed to the LNAPL in the TP1, TP2, SP and MW-157WT cluster. However, it is very unlikely that there was any quench oil contribution to the LNAPL associated with 203S, MW-148WT, or MW-147WT.

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Figure 1. Source Ratio Plot of LNAPL Samples



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Conclusions

- LNAPLs in TP1, TP2, SP and MW-157WT were middle-distillate-range petroleum products reflecting a likely mixture of cutting oil from the Delphi operation, LNAPL from MW-147WT, and possibly quench oil from the SMI operation; and

- Quench oil from the SMI operation is not likely a source of LNAPL collected from 203S, MW-148WT, or MW-147WT.

References

Brown, J.S. and Boehm, P.D. 1993. The use of double-ratio plots of polynuclear aromatic hydrocarbon (PAH) alkyl homologues for petroleum source identification. In: Proceedings of the 1993 International Oil Spill Conference, Tampa, FL. American Petroleum Institute, Washington, DC. pp. 799-801.

Burns, K.A. 1993. Analytical methods used in oil spill studies. Mar. Pollut. Bull. 26(2), 68-72.

Douglas, G.S., McCarthy, K.J., Dahlen, D.T., Seavey, J.A., and Steinhauer, W.G. 1992. The use of hydrocarbon analyses for environmental assessment and remediation. Journal of Soil Contamination. 1(3), 197-216.

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EPRI. 2000. Chemical Source Attribution at Former MGP Sites. EPRI, Palo Alto, CA, NYSEG, Binghampton, NY, and RG&E, Rochester, NY: 2000. 1000728.

Page, D.S., Boehm, P.D., Douglas, G.S., and Bence, A.E. 1995. Identification of hydrocarbon sources in the benthic sediments of Prince William Sound and the Gulf of Alaska following the *Exxon Valdez* oil spill. In: *Exxon Valdez* Oil Spill: Fate and Effects in Alaskan Waters. (Wells, P.G., Butler, J.N., and Hughes, J.S., Eds.), American Society for Testing and Materials (ASTM STP 1219), Philadelphia, PA. pp. 41-83.

Sauer, T.C. and Boehm, P.D. 1991. The use of defensible analytical chemical measurements for oil spill natural resource damage assessment. In: Proceedings of the 1991 International Oil Spill Conference, San Diego, CA. United States Coast Guard, American Petroleum Institute, and United States Environmental Protection Agency. pp. 363-369.

Sauer, T.C., Brown, J.S., Boehm, P.D., Aurand, D.V., Michel, J., and Hayes, M.O. 1993. Hydrocarbon source identification and weathering characterization of intertidal and subtidal sediments along the Saudi Arabian coast after the Gulf War oil spill. Mar. Pollut. Bull. 27, 117-134.

Sauer, T.C. and Boehm, P.D. 1995. Hydrocarbon Chemistry Analytical Methods for Oil Spill Assessments. Marine Spill Research Corporation, Washington, DC. MSRC Technical Report Series 95-032. 114 p.

Stout, S.A., Uhler, A.D., McCarthy, K.J., and Emsbo-Mattingly, S. 2002. Chemical fingerprinting of hydrocarbons. In: Introduction to Environmental Forensics. pp. 137-260. (Murphy, B.L. and Morrison, R.D., Eds.) San Diego, San Francisco, New York, Boston, London, Sydney, and Tokyo, Academic Press.

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General Motors Saginaw Malleable Iron Plant and REALM Green Point Landfill and Drum Remediation Area, Saginaw, Michigan; Remedial Action Plan Revisions

Date:
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Dear Ms. Matlock:

This letter and attachments have been prepared on behalf of the General Motors Corporation (GM) and Waste Management, Inc. (WMI) in response to your November 21, 2008, electronic mail transmittal to Ms. Cheryl Hiatt of GM. Your correspondence provided preliminary comments on the July 30, 2008, Remedial Action Plan (RAP) prepared for the Saginaw Malleable Iron Plant Property, and the Green Point Landfill and Drum Remediation Area, in Saginaw, Michigan. We understand that your comments are preliminary and informal. We have prepared this letter response in order to facilitate review by you and also the rest of the project team. MDEQ's comments have been reproduced below, along with responses and references to the attached parts of the RAP that show the proposed changes. We appreciate having this opportunity to address your comments.

MDEQ Technical Comment 1

The pipe from the Schultz property, draining water containing volatile organic compounds from off-site, is proposed to be capped as part of the RAP activities. Annual groundwater monitoring in the area of the pipe should be undertaken to verify that the pipe was the only source of volatile organic compounds in the localized groundwater.

Response

It is agreed that sampling of monitoring well TWW-1 will be added to the annual site monitoring program. The sampling program will continue until a downward trend in

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VOC concentrations is established, accomplishing the goal of the sampling effort. When appropriate, a proposal to stop sampling at this location will be made to the MDEQ in the annual report. Edits to the RAP include the addition of TWW-1 as a monitoring point in the Summary Operation Maintenance and Monitoring Plan (Appendix C of the RAP). A track changes version of the appendix text and Figure C-2 showing this change are attached. Reference to the added sampling has also been added to the main text of the RAP (also attached).

MDEQ Technical Comment 2

Groundwater monitoring activities can be eliminated in the UST#7 area as part of this RAP. The UST#7 area is located in the center of the property and groundwater has been monitored in the area since 1994. The gasoline constituents in the area have decreased over time and the most recent data shows contaminants exceed only the drinking water criteria. Site wide property use restrictions against the installation of potable water wells are proposed as part of the RAP.

Response

We agree with your assessment of this area of the Site. Edits to the RAP include the deletion of the limited monitoring program that had been proposed for the UST 7 area. The Summary Operation Maintenance and Monitoring Plan (Appendix C of the RAP) has been modified to show this change. A track changes version of the appendix text and Figure C-2 showing this change are attached. Reference to the sampling program has also been deleted from the main text of the RAP.

MDEQ Technical Comment 3

Figure 2-5 of the RAP must include a notation for the former railyard area, the previous metal feedstock area, and the Saginaw River berm whereby the vegetation in those areas must be maintained at more than 50% cover in order to prevent the inhalation of hazardous substances present in the surface soil.

Response

Agreed. Figure 2-5 has been revised as requested and is provided as an attachment to this letter.

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MDEQ Technical Comment 4

On page 3-5 of the RAP, the list should include the parking lot north of the buffer basin. The Former DRA Hillock Area was included twice on the list.

Response

Agreed. The requested edit has been made, and is shown in the attached track changes version of the RAP text.

MDEQ Technical Comment 5

It is indicated, on page 2-16 and Figure 2-5 of the RAP, that intrusive activity and worker duration restrictions will be placed on the hillock area of the DRA. Appendix D does not include these restrictions for the DRA.

Response

The Restrictive Covenants contained in Appendix D have been revised, and are attached. The noted inconsistency has been corrected.

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MDEQ Restrictive Covenant Comment 1

It appears that GM revised the text of the RAP appropriately or provided sufficient explanation in their response to address the comments provided in the DEQ's May 15, 2006 letter.

Response

No response required.

MDEQ Restrictive Covenant Comment 2

Throughout the RAP, and specifically in the LPG's response to MDEQ comment 1 on page 6 of their July 30, 2008 letter, the volatile organic compounds identified in the groundwater at the DRA Hillock area are being attributed to an off-site source and are not being monitored as part of the RAP. The RAP must include an affidavit of unremediated release pursuant to R299.5534 to satisfy this RAP requirement. (As I

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indicated above, I believe the Queen St Dump and the dioxin are also subject to this requirement.)

Response

Affidavits of Unremediated Release(s) will be submitted for each of the areas above with the final Remedial Action Plan. In addition, impacts to groundwater from the adjacent Delphi property in the area northwest of the Green Point Landfill will also be addressed in this way.

MDEQ Restrictive Covenant Comment 3a

In the restrictive covenant (RC) for the 150.97 acre GM-Saginaw Malleable Iron Plant Property it is difficult to match up the specific restrictions proposed in the RC with the appropriate survey designating the area of the property that each restriction applies, specifically:

a. Exhibit 1 gives the legal description for but does not provide a survey for this Property. Exhibit 2, that is suppose to designate "those portions of the Property (defined earlier as the 150.97 acre parcel) that are subject to the land and resource use restrictions specified herein", uses a base survey for the entire 321.38 acre property. This is inconsistent with the text of the RC and legal description provided in Exhibit 1 and makes it difficult to determine where the restrictions set forth in Paragraphs 1, 2a and 2b of the RC apply.

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Response

The Restrictive Covenants (RAP Appendix D) have been revised to make it easier for the reader to understand the specific restrictions placed on each area of the site. The revised Restrictive Covenants are attached. You are correct that a combined field survey of the Saginaw Malleable Iron Plant, Green Point Landfill, and Eastern Property Extension was provided in the RAP. We understand that despite having the separate legal descriptions of each property, and a map showing the general locations and type of restrictions, you also require a separate survey map for each individual property. We will provide the additional survey maps in the final RAP.

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MDEQ Restrictive Covenant Comment 3b.

b. Paragraph 1 on page 3 of the RC does not describe which "specific portions of the Property" depicted in Exhibit 2 are subject to the commercial and industrial land use restriction. This paragraph should be revised to specifically list all those areas depicted in Exhibit 2 (e.g. Melting Department Area, Former Railyard Area) where the land use restriction applies.

Response

The limited Industrial and limited Commercial II, III, and IV categories for land use apply to the entire property with the exception of the Former Railyard and the LNAPL Assessment and Remediation Area. In these two areas of the property, future use is restricted to limited Industrial and limited Commercial II, due to the presence of lead. The Restrictive Covenant has been revised to clarify these restrictions.

MDEQ Restrictive Covenant Comment 3c

c. Paragraph 2b on page 4 of the RC should include the Exhibit No. that depicts the areas subject to the restriction provided for in the paragraph.

Response

Agreed. We have added the requested reference.

MDEQ Restrictive Covenant Comment 3d

d. I could not find a survey in Exhibit 5 that delineates the Former UST # 7 area. This needs to be added. Paragraph 2d on page 5 of the RC should be revised to include the name of the designated area in the sentence that reads "no new enclosed structure suitable for short or long term human habitation shall be constructed on the Property in the area delineated in Exhibit 5 as the Former UST #7 Area…"

Response

A survey of the former UST 7 area will be provided in the final RAP. The requested reference to the site area has also been added to the Restrictive Covenant (attached).

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MDEQ Restrictive Covenant Comment 3e

e. The third sentence in Paragraph 2h on page 6 of the RC states "Activities in this area of the Property are restricted…," but does not designate the name of the area or provide an Exhibit No. for reference to a survey. The same paragraph also states that "Areas requiring work duration restrictions are shown in Exhibit 6", but when you refer to Exhibit 6 it also includes the surveys for Exhibits 4 and 5. It is unclear which areas are supposed to be included in Exhibit 6, one or all. For clarity, the surveys for Exhibits 4, 5 and 6 should be separated and it should be clear in each restriction the name of the area where the restriction apples and in what exhibit the survey can be located.

Response

The Restrictive Covenants have been revised to clearly identify the specific restrictions on each area. Each area is also now shown in a separate Exhibit for clarity.

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MDEQ Restrictive Covenant Comment 4a

(4) Similar to comment 3 above, in the RC for the 122.23 acre REALM, Inc. property it is difficult to match up the specific restrictions proposed in the RC with the appropriate survey designating the area of the property that each restriction applies, specifically:

a. Exhibit 1 gives the legal description for a 122.23 acre parcel of land, but does not provide a survey for this Property. Exhibit 2, that is suppose to designate "those portions of the Property (defined earlier as the 122.23 acre parcel) that are subject to the land and resource use restrictions specified herein", uses a base survey for the entire 321.38 acre property. This is inconsistent with the text of the RC and legal description provided in Exhibit 1 and makes it difficult to determine where the restrictions set forth in Paragraphs 1, 2a, 2b and 2c of the RC apply.

Response

As described in the response to Comment 3a, above, a separate survey map of the whole REALM Green Point Landfill property will be prepared, in addition to the individual survey maps of the Green Point Landfill and the Former Hillock Area of the

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Drum Remediation Area that were previously provided. The restrictive covenants have also been revised to clearly identify each restricted area.

MDEQ Restrictive Covenant Comment 4b

b. Paragraph 1 on page 3 of the RC does not describe which "specific portions of the Property" depicted in Exhibit 2 are subject to the commercial and industrial land use restriction. This paragraph should be revised to specifically list all those areas depicted in Exhibit 2 (e.g. Terminated Green Point Landfill, Former Hillock Area) where the land use restriction applies.

Response

Agreed. Clarification that the restriction applies to the entire property has been added to the revised Restrictive Covenant.

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MDEQ Restrictive Covenant Comment 4c

c. It is not clear in Paragraph 2b on page 4 of the RC if the restriction applies to the entire Property or just specific areas of the Property that contain contaminated subsurface soils that may result on exposures exceeding the applicable exposure criteria identified in the RAP. If the restriction applies to the entire Property, then the text must be revised to clarify this condition. If the restriction only applies to specific areas of the Property, then those areas must be defined, surveyed separately and referenced to the appropriate exhibit that contains the survey of the area.

Response

The areas of restriction have been clarified in the revised Restrictive Covenants.

MDEQ Restrictive Covenant Comment 4d

d. It is not clear in Paragraph 2d on page 4 of the RC if the restriction on subsurface footings and utilities applies to the entire Property or just specific areas of the Property. Please clarify in the text.

Response

The areas of restriction have been clarified in the revised Restrictive Covenants.

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MDEQ Restrictive Covenant Comment 5

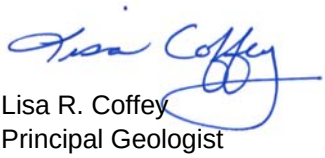
(5) The RCs for the 48.18 acre REALM, Inc. East property and the property immediately east and south of the GM-Saginaw Malleable Iron Plant do not contain surveys for Exhibit 2. They instead reference a survey contained in Appendix G of the RAP that includes a survey of the entire 321.38 acre property that does not specifically portray the distinct parcels referenced in these 2 RCs. The RCs must be revised to include separate and distinct surveys for the parcels of property each RC is being recorded.

Response

Agreed. As described above, separate survey maps will be prepared for each property, and will be included in the final RAP, in addition to the legal descriptions already provided.

Sincerely,

ARCADIS



Lisa R. Coffey
Principal Geologist

LRC/plf
Attachments

Copies:
Mr. Allan Brouillet, MDEQ ERD
John Leone, Esq., MDAG
Ms. Cheryl Hiatt, GM WFG
Mr. Ed Peterson, GM WFG
Mr. Kent Brainbridge, WMI
Mr. Todd Schebor, Esq., Dykema Gossett

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STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING

JENNIFER M. GRANHOLM
GOVERNOR

STEVEN E. CHESTER
DIRECTOR

February 27, 2009

Ms. Cheryl Hiatt
GM Remediation Team
30200 Mound Road
MC: 480-11-W60
Warren, Michigan 48090

Dear Ms Hiatt:

SUBJECT: Approval of a Limited Remedial Action Plan (RAP) for the Saginaw Malleable Iron/Green Point Landfill Site, Saginaw County, Michigan; Site ID No. 82000213

The Department of Environmental Quality (DEQ), Remediation and Redevelopment Division (RRD), has reviewed the RAP for the Saginaw Malleable Iron/Green Point Landfill Site (Facility) dated July 30, 2008, and subsequent modifications set forth in a letter from ARCADIS to Ms. Sue Kaelber-Matlock of the DEQ dated December 31, 2008. The RAP was prepared by ARCADIS on behalf of the General Motors Corporation (GM), the Remediation and Liability Management Company, Inc., and Waste Management, Inc. (WMI), commonly referred to as the liable party group (LPG). The RAP was prepared and submitted to the DEQ pursuant to Consent Judgment No. 98-22686-CE-2 (Consent Judgment), entered on March 16, 1998, between the Department of Attorney General (DAG), the DEQ, GM, and WMI. The RAP has been reviewed by DEQ staff pursuant to Part 201[1] and the Consent Judgment.

Based upon our review, the RAP for the Facility is approved subject to the following conditions being met:

(1) By June 1, 2009, the LPG must complete and submit Affidavits for Unremediated Release(s) as required by Rule 299.5534 of the Part 201 Administrative Rules for the hazardous substance releases listed below that are not being addressed by the LPG as part of the RAP.

- Hazardous substance releases associated with the former city of Saginaw Queen Street waste disposal area.
- Dioxin compounds that have come to be located in Tittabawassee and Saginaw River sediments, and associated river floodplain areas, that are attributed to releases from the Dow Chemical Company manufacturing facility located in Midland, Michigan.
- Hazardous substance releases attributed to the former Saginaw Steering Gear Plant #2 facility.
- Hazardous substance releases associated with improper waste disposal practices on property located to the west of the former drum disposal portion of the Facility.

[1] Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA).

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(4) The LPG shall submit annual progress reports in accordance with Section XVI of the Consent Judgment and Section 3.18.3 of the RAP.

The DEQ acknowledges that the proposed schedule for recording the restrictive covenants constitutes a modification to the RAP and is hereby requesting the LGP's written agreement to this modification pursuant to Paragraph 18.1 of the Consent Judgment. Please provide the LPG's written agreement regarding the acceptability of this schedule within thirty (30) days of receipt of this letter, or provide a reasonable alternate schedule for consideration by the DEQ. DEQ approval of the RAP is subject to our concurrence on a mutually acceptable schedule for implementation of the remaining response activities required for the RAP.

The determinations presented in this letter are based on information currently known to the DEQ. The DEQ expresses no opinion as to other contaminants beyond those identified and remediated as a part of the approved RAP. The discovery of new information regarding environmental conditions or regulated substances at the Facility that is not known to the DEQ as of the date of this letter may result in a request by the DEQ for additional response activities consistent with the provisions of the Consent Judgment. The DEQ also makes no warranty as to the fitness of this site for any general or specific use, and prospective purchasers or users are advised to use due diligence prior to acquiring or using this site.

Please direct all correspondence and information requested in this letter, and any questions or concerns you may have, to: Ms. Sue Kaelber-Matlock, Project Manager, RRD, Saginaw Bay District Office, at 989-894-6249; by mail to the Remediation & Redevelopment Division, Saginaw Bay District Office, 401 Ketchum Street, Bay City, Michigan 48708; or by email to MATLOCKS@michigan.gov.

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Sincerely,

Andrew W. Hogarth, Chief
Remediation and Redevelopment Division
517-335-1104

cc: Mr. Ed Peterson, GM
Mr. Kent Bainbridge, WMI
Ms. Lisa Coffey, ARCADIS
Ms. Rachel Schneider, Quarles & Brady
Mr. John F. Leone, DAG
Mr. Philip Schrantz, DEQ
Ms. Patricia A. McKay, DEQ
Ms. Nan Leemon, DEQ
Ms. Brenda Brouillet, DEQ
Ms. Sue Kaelber-Matlock, DEQ
Mr. Joshua Mosher, DEQ

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ENCORE

Environmental Corporate Remediation Company, Inc.
MC: 483-111-W60
30200 Mound Road
Warren, Michigan 48090
(586) 986-2171
(586) 986-2281 - Fax

March 27, 2009

Ms. Sue Kaelber-Matlock
Project Manager RRD
Saginaw Bay District Office
401 Ketchum Street
Bay City, MI 48708

RE: Request to Extend the Schedule proposed in the February 27, 2009 MDEQ RAP Approval Letter For Green Point Landfill/Saginaw Malleable Iron Plant Site, Saginaw, MI

Dear Ms. Matlock:

The Site responding parties (composed of General Motors Corporation(GM), Remediation and Liability Management, Inc (REALM), Environmental Corporate Remediation Company, Inc. (ENCORE), and Waste Management, Inc. (WMI)), referred to in this letter as the Group, are in receipt of Michigan Department of Environmental Quality's (MDEQ's) letter approving the Remedial Action Plan (RAP) for the Green Point Landfill/Saginaw Malleable Iron (SMI) Site (Site), located in Saginaw, Michigan, pursuant to the Consent Judgment No 98-22686-CE-2 with the State of Michigan. We understand and will be able to meet the June 1, 2009 deadline for submitting the following 4 Affidavits of Unremediated Release to MDEQ for those environmental releases not being addressed by the RAP:

1) Releases associated with the City of Saginaw former Queen Street Dump;
2) Dioxin contamination in the sediment and floodplain areas of the Site related to the Dow Chemical release in Midland, Michigan;
3) Releases attributed to the Saginaw Steering Gear Plant #2 facility; and
4) Releases associated with improper waste disposal practices on property located west of the former drum disposal portion of the Site.

We will also meet the June 1, 2009 deadline for completing and submitting the remaining surveys for the restrictive covenants for the Site to MDEQ. However, we would like to have an extension on filing the restrictive covenants themselves. As you probably know, GM is in the process of working through loan requirements from the United States government and we have not yet worked out what notifications and review we are required to go through when placing restrictive covenant on government mortgaged property. We would like to request an extension of two months in order to work through our loan requirements.

We would also like to request an extension of two months for the submittal of the Financial Assurance Mechanism (FAM) to work out notification and review requirements for commitment of money, under the loan agreement.

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The Group will submit annual progress reports in accordance with Section XVI of the Consent Judgment and Section 3.18.3 of the RAP.

The Group appreciates the consideration of MDEQ in these above schedule modifications and would also like to discuss a schedule for completing the well abandonments for this Site. We have already completed some abandonments, but would like to complete the rest of the well abandonments in the summer of 2010. We will place permanent markers and marker posts in accordance with Section 3.16 of the RAP within 60 days of receiving the recorded restrictive covenants from the Saginaw Register of Deeds Office.

Please feel free to call me at 313-510-4328 should you wish to discuss any of the above or have questions.

Sincerely,

Cheryl R. Hiatt

Cheryl R. Hiatt

GM Technical Site Manager

cc: Mr. Ed Peterson GM
Mr. Kent Bainbridge, WMI
Ms. Lisa Coffey, Arcadis

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STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
SAGINAW BAY DISTRICT OFFICE

JENNIFER M. GRANHOLM
GOVERNOR

STEVEN E. CHESTER
DIRECTOR

March 31, 2009

CERTIFIED MAIL

Ms. Cheryl R. Hiatt
GM Technical Site Manager
Environmental Corporate Remediation Company, Inc.
MC: 483-111-W60
30200 Mound Road
Warren, Michigan 48090

Dear Ms. Hiatt:

SUBJECT: Schedule Extension Request
Saginaw Malleable Iron/Green Point Landfill Site, Saginaw County
Site ID No. 82000213

By letter dated March 27, 2009 (Letter), the Liable Party Group (LPG) for the Saginaw Malleable Iron/Green Point Landfill Site (Facility) acknowledged receipt of the Department of Environmental Quality (DEQ) February 27, 2009 letter (Approval Letter) approving with conditions the remedial action plan (RAP) for the Facility under the provisions of Consent Judgment No. 98-22686-CE-2 (Consent Judgment) and Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, and the Part 201 Administrative Rules. In the Approval Letter the DEQ recommended a schedule for completing remaining response actions in satisfaction of the DEQ conditions for approval.

In its Letter the LPG requested an extension of two months for the filing of the restrictive covenants and for submittal of the financial assurance mechanism. The DEQ concurs with the reasons presented by the LPG and therefore concurs with the extension request. With this concurrence the following represents the revised schedule dates:

- Submittal of the FAM for DEQ review and approval - August 7, 2009
- Filing restrictive covenants - August 28, 2009

The DEQ also concurs with the LPG proposal to fully complete well abandonment during the summer of 2010.

As stipulated in the Approval Letter it is important that a mutually acceptable schedule for implementation of the remaining RAP response actions is maintained between the LPG and the DEQ, and complied with. In this regard, please contact me as soon as possible regarding any events, issues, or occurrences that may affect final RAP implementation schedules and response actions.

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Please contact me should you have any questions or concerns regarding the information presented in this letter.

Sincerely,

Sue Kaelber-Matlock, Senior Geologist
Remediation and Redevelopment Division
Saginaw Bay District Office
989-894-6249

cc: Mr. Ed Peterson, GM
Mr. Kent Bainbridge, WMI
Ms. Lisa Coffey, Arcadis
Mr. Josh Mosher, DEQ

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Ms. Susan Kaelber-Matlock
Senior Geologist
Remediation and Redevelopment Division
Michigan Department of Environmental Quality
Saginaw Bay District Office
401 Ketchum Street
Bay City, MI 48708

Subject:
General Motors Saginaw Malleable Iron Plant and REALM Green Point Landfill and Drum Remediation Area, Saginaw, Michigan; Remedial Action Plan Revisions

Date:
May 28, 2009

Contact:
Lisa R. Coffey

Phone:
315.671.9164

Email:
Lisa.Coffey@
arcadis-us.com

Our ref:
B0027608 #2.04

Dear Ms. Matlock:

The attached *Affidavits of Unremediated Release(s)* have been prepared on behalf of the General Motors Corporation (GM) as requested in your November 21, 2008, electronic mail transmittal to Ms. Cheryl Hiatt of GM. Your correspondence provided preliminary comments on the July 30, 2008, Remedial Action Plan (RAP) prepared for the Saginaw Malleable Iron Plant Property, and the Green Point Landfill and Drum Remediation Area, in Saginaw, Michigan. The attached affidavits compose Attachment 2 of the revised RAP, and are being submitted according to the schedule established in a February 27, 2009 letter from Mr. Andrew Hogarth (MDEQ) to Ms. Hiatt. Additional survey data are being transmitted separately. Please contact me if you have any questions regarding the enclosed information.

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Sincerely,

ARCADIS

Lisa R. Coffey
Principal Geologist

LRC/plf
Attachments

Imagine the result

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Copies:
Mr. Allan Brouillet, MDEQ ERD
John Leone, Esq., MDAG
Ms. Cheryl Hiatt, GM WFG
Mr. Ed Peterson, GM WFG
Mr. Kent Brainbridge, WMI
Mr. Todd Schebor, Esq., Dykema Gossett

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Ms. Susan Kaelber-Matlock
Senior Geologist
Remediation and Redevelopment Division
Michigan Department of Environmental Quality
Saginaw Bay District Office
401 Ketchum Street
Bay City, MI 48708

Subject:
General Motors Saginaw Malleable Iron Plant and REALM Green Point Landfill and Drum Remediation Area, Saginaw, Michigan; Remedial Action Plan Revisions

Date:
May 29, 2009

Contact:
Lisa R. Coffey

Phone:
315.671.9164

Email:
Lisa.Coffey@
arcadis-us.com

Our ref:
B0027608 #2.04

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Dear Ms. Matlock:

The attached survey information has been prepared on behalf of the General Motors Corporation (GM) as requested in your November 21, 2008, electronic mail transmittal to Ms. Cheryl Hiatt of GM. Your correspondence provided preliminary comments on the July 30, 2008, Remedial Action Plan (RAP) prepared for the Saginaw Malleable Iron Plant Property, and the Green Point Landfill and Drum Remediation Area, in Saginaw, Michigan. The attached survey information completes the Restrictive Covenants contained in Appendix D of the revised RAP, and is being submitted according to the schedule established in a February 27, 2009, letter from Mr. Andrew Hogarth (MDEQ) to Ms. Hiatt. The following survey items are enclosed:

- Saginaw Malleable Iron Plant Property (survey map);
- Former UST 7 Area (survey map and legal description);
- Green Point Landfill Property (survey map);
- REALM Inc. Eastern Property Extension (survey map);
- Former Consumers Property (survey map).

Affidavits of Unremediated Release(s) are being transmitted separately. Please contact me if you have any questions regarding the enclosed information.

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Sincerely,

ARCADIS

Lisa R. Coffey
Principal Geologist

LRC/plf
Attachments

Copies:
Mr. Allan Brouillet, MDEQ ERD
John Leone, Esq., MDAG
Ms. Cheryl Hiatt, GM WFG
Mr. Ed Peterson, GM WFG
Mr. Kent Brainbridge, WMI
Mr. Todd Schebor, Esq., Dykema Gossett

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DECLARATION OF RESTRICTIVE COVENANT
SAGINAW MALLEABLE IRON PLANT PROPERTY

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RETURN TO:

Todd C. Schebor, Esq.
Dykema Gossett PLLC
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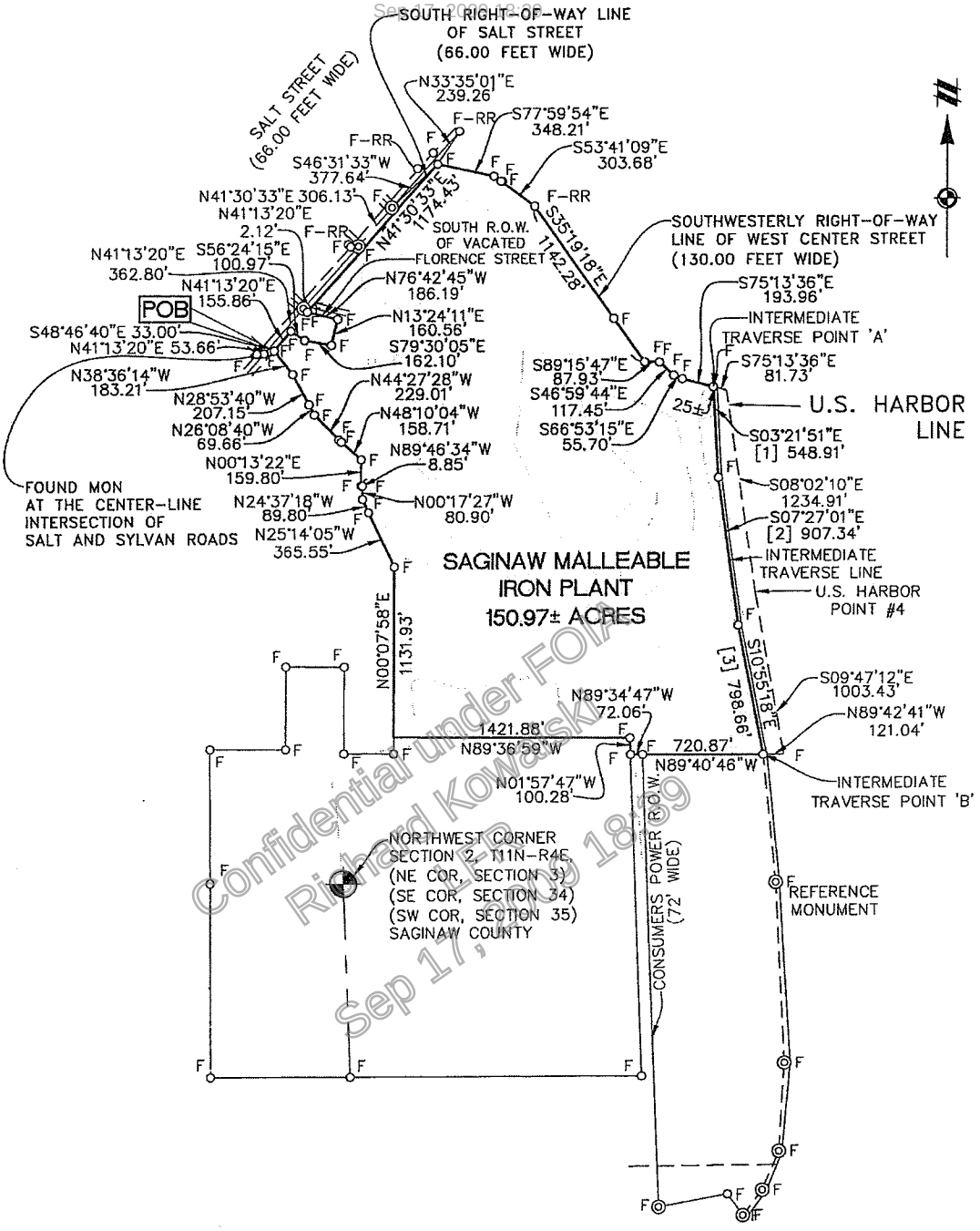
EXHIBIT 2

SAGINAW MALLEABLE IRON PLANT PROPERTY SURVEY

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LEGEND

O_F	FOUND IRON PIPE
O_S	SET IRON PIPE
$◎_F$	FOUND CONCRETE MONUMENT
POB	PLACE OF BEGINNING
R/W	RIGHT-OF-WAY

CLIENT	GENERAL MOTORS	JOB: 05000618	CAD 08003152SU-16
SKETCH AND DESCRIPTION OF A 150.97 ACRE PARCEL OF LAND-SAGINAW MALLEABLE IRON PLANT LOCATED IN		DR. BAL	CH. DJG/DLN
		BOOK	PG.
		SHEET 1 OF 2	DATE: 5/13/09
		FILE CODE: SU-0-16	
SECTIONS 2, 3, 34 & 35, T11&12N, R4E CITY OF SAGINAW SAGINAW COUNTY, MICHIGAN		ATWELL-HICKS www.atwell-hicks.com 866 850 4200	
SCALE: 1 INCH =800 FEET	0 400 800	ARIZONA FLORIDA ILLINOIS MICHIGAN OHIO PENNSYLVANIA TENNESSEE	Engineering Surveying Planning / Environmental Ecological Water Resources

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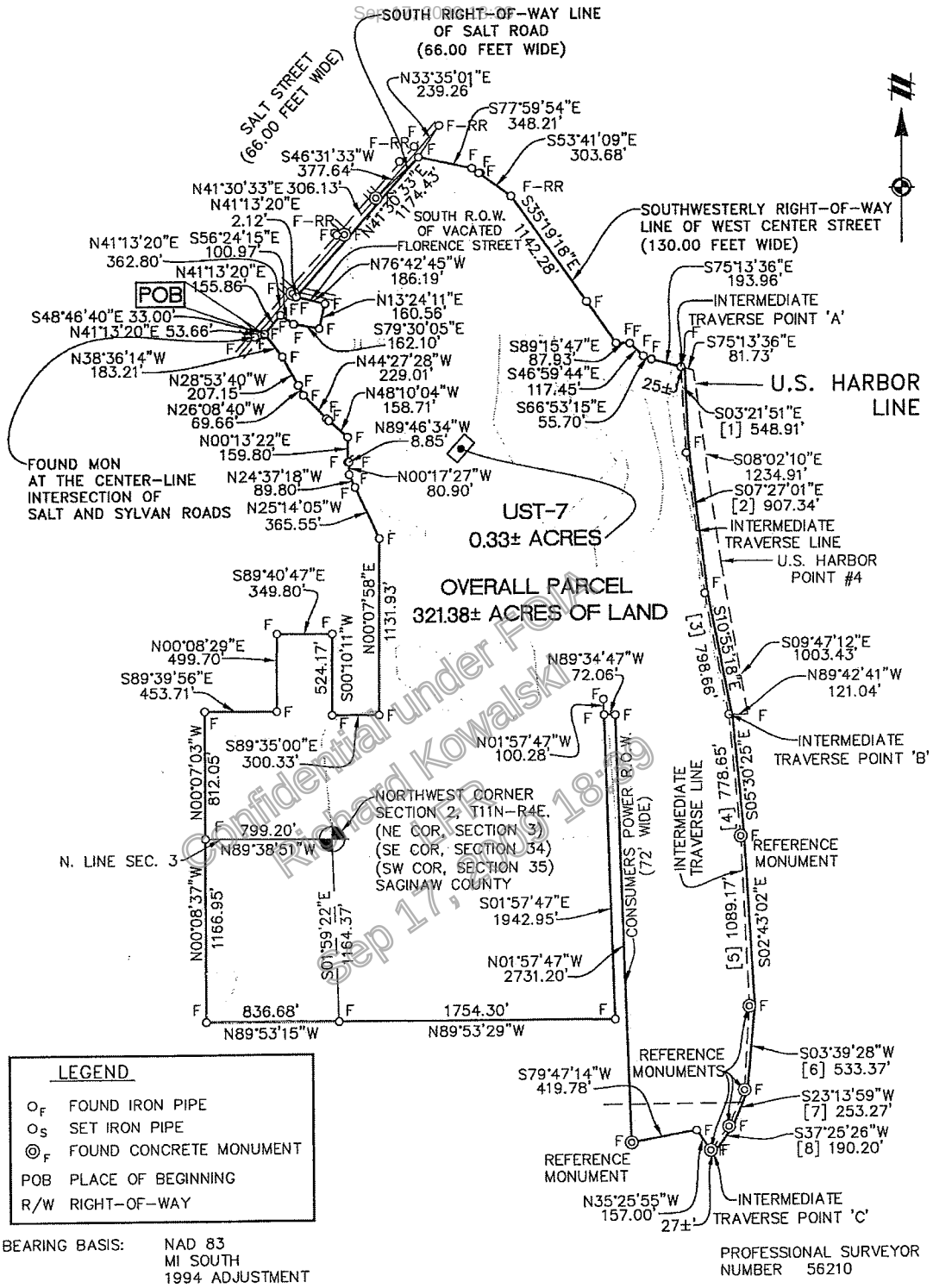
EXHIBIT 5

FORMER UST -7 AREA SURVEY AND LEGAL DESCRIPTION

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POB	PLACE OF BEGINNING
R/W	RIGHT-OF-WAY

BEARING BASIS: NAD 83
MI SOUTH
1994 ADJUSTMENT

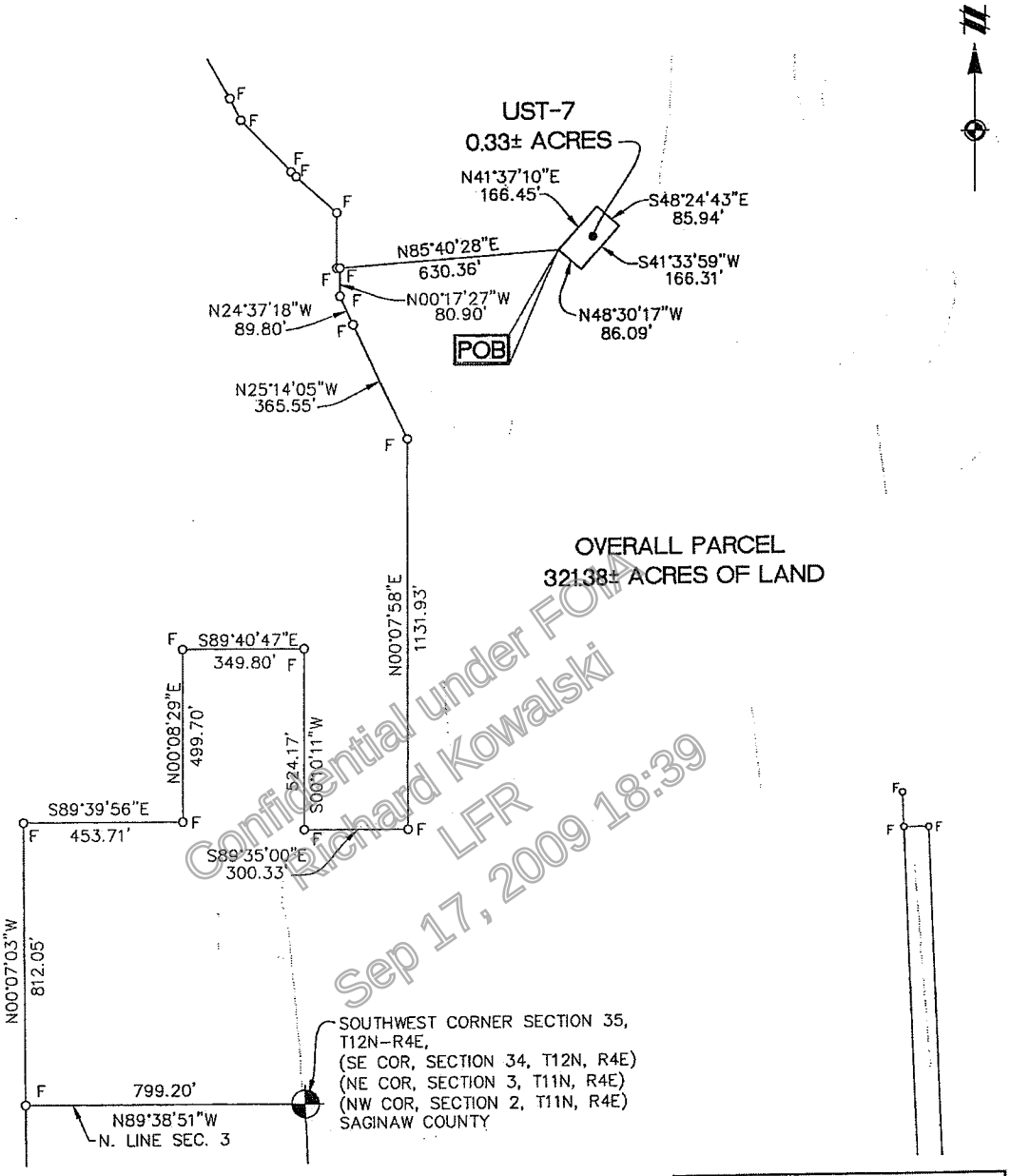
PROFESSIONAL SURVEYOR
NUMBER 56210

I HEREBY CERTIFY THAT I HAVE SURVEYED AND MAPPED THE LAND ABOVE PLATTED AND/OR DESCRIBED ON MAY 12, 2009, AND THAT THE RATIO OF CLOSURE ON THE UNADJUSTED FIELD OBSERVATIONS OF SUCH SURVEY WAS 1/5000.

CLIENT	GENERAL MOTORS	JOB: 05000618	CAD 08003152SU-15
SKETCH AND DESCRIPTION OF A 0.33 ACRE PARCEL OF LAND "UST-7" LOCATED IN		DR. BAL	CH. CAL
		BOOK 1177	PG. 54
		SHEET 1 OF 4	DATE: 5/13/09
		FILE CODE: SU-0-15	
SECTIONS 2, 3, 34 & 35, T11&12N, R4E CITY OF SAGINAW SAGINAW COUNTY, MICHIGAN		ATWELL-HICKS www.atwell-hicks.com 866 850 4200	
SCALE: 1 INCH =800 FEET	0 400 800	ARIZONA FLORIDA ILLINOIS MICHIGAN OHIO PENNSYLVANIA TENNESSEE	Engineering Surveying Planning / Environmental Ecological Water Resources

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$\odot_F$	FOUND CONCRETE MONUMENT
POB	PLACE OF BEGINNING
R/W	RIGHT-OF-WAY

BEARING BASIS: NAD 83
MI SOUTH
1994 ADJUSTMENT

I HEREBY CERTIFY THAT I HAVE SURVEYED AND MAPPED THE LAND ABOVE PLATTED AND/OR DESCRIBED ON MAY 12, 2009, AND THAT THE RATIO OF CLOSURE ON THE UNADJUSTED FIELD OBSERVATIONS OF SUCH SURVEY WAS 1/5000.

PROFESSIONAL SURVEYOR
NUMBER 56210

CLIENT GENERAL MOTORS

SKETCH AND DESCRIPTION OF A 0.33 ACRE PARCEL OF LAND "UST-7" LOCATED IN

SECTIONS 2, 3, 34 & 35, T11&12N, R4E
CITY OF SAGINAW
SAGINAW COUNTY, MICHIGAN

SCALE: 1 INCH =400 FEET
0 200 400

JOB: 05000618	CAD 08003152SU-15
DR. BAL	CH. CAL
BOOK 1177	PG. 54
SHEET 3 OF 4	DATE: 5/13/09
FILE CODE: SU-0-15	

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DESCRIPTION OF A 0.33 ACRE PARCEL OF LAND

Commencing at the Southwest Corner of Section 35, being part of Section 35, T12N, R4E, City of Saginaw, Saginaw County, Michigan; thence N89°38'51"W 799.20 feet along the North line of Section 3, T11N, R4E; thence N00°07'03"W 812.05 feet; thence S89°39'56"E 453.71 feet; thence N00°08'29"E 499.70 feet; thence S89°40'47"E 349.80 feet; thence S00°10'11"W 524.17 feet; thence S89°35'00"E 300.33 feet; thence N00°07'58"E 1131.93 feet; thence N25°14'05"W 365.55 feet; thence N24°37'18"W 89.80 feet; thence N00°17'27"W 80.90 feet; thence N85°40'28"E 630.36 feet for a PLACE OF BEGINNING; thence N41°37'10"E 166.45 feet; thence S48°24'43"E 85.94 feet; thence S41°33'59"W 166.31 feet; thence N48°30'17"W 86.09 feet to the Place of Beginning, containing 0.33 acres of land, more or less, subject to easements, conditions, restrictions and exceptions of record, if any.

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BEARING BASIS: NAD 83
MI SOUTH
1994 ADJUSTMENT

PROFESSIONAL SURVEYOR
NUMBER 56210

I HEREBY CERTIFY THAT I HAVE SURVEYED AND MAPPED THE LAND ABOVE PLATTED AND/OR DESCRIBED ON MAY 12, 2009, AND THAT THE RATIO OF CLOSURE ON THE UNADJUSTED FIELD OBSERVATIONS OF SUCH SURVEY WAS 1/5000.

CLIENT GENERAL MOTORS	JOB: 05000618	CAD 08003152SU-15
SKETCH AND DESCRIPTION OF A 0.33 ACRE PARCEL OF LAND "UST-7" LOCATED IN	DR. BAL	CH. CAL
	BOOK 1177	PG. 54
	SHEET 4 OF 4	DATE: 5/13/09
	FILE CODE: SU-0-15	
SECTIONS 2, 3, 34 & 35, T11&12N, R4E CITY OF SAGINAW SAGINAW COUNTY, MICHIGAN	ATWELL-HICKS www.atwell-hicks.com 866 850 4200	
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DECLARATION OF RESTRICTIVE COVENANT
GREEN POINT LANDFILL PROPERTY

DRAFTED BY AND WHEN RECORDED
RETURN TO:

Todd C. Schebor, Esq.
Dykema Gossett PLLC
400 Renaissance Center
Detroit, Michigan 48243

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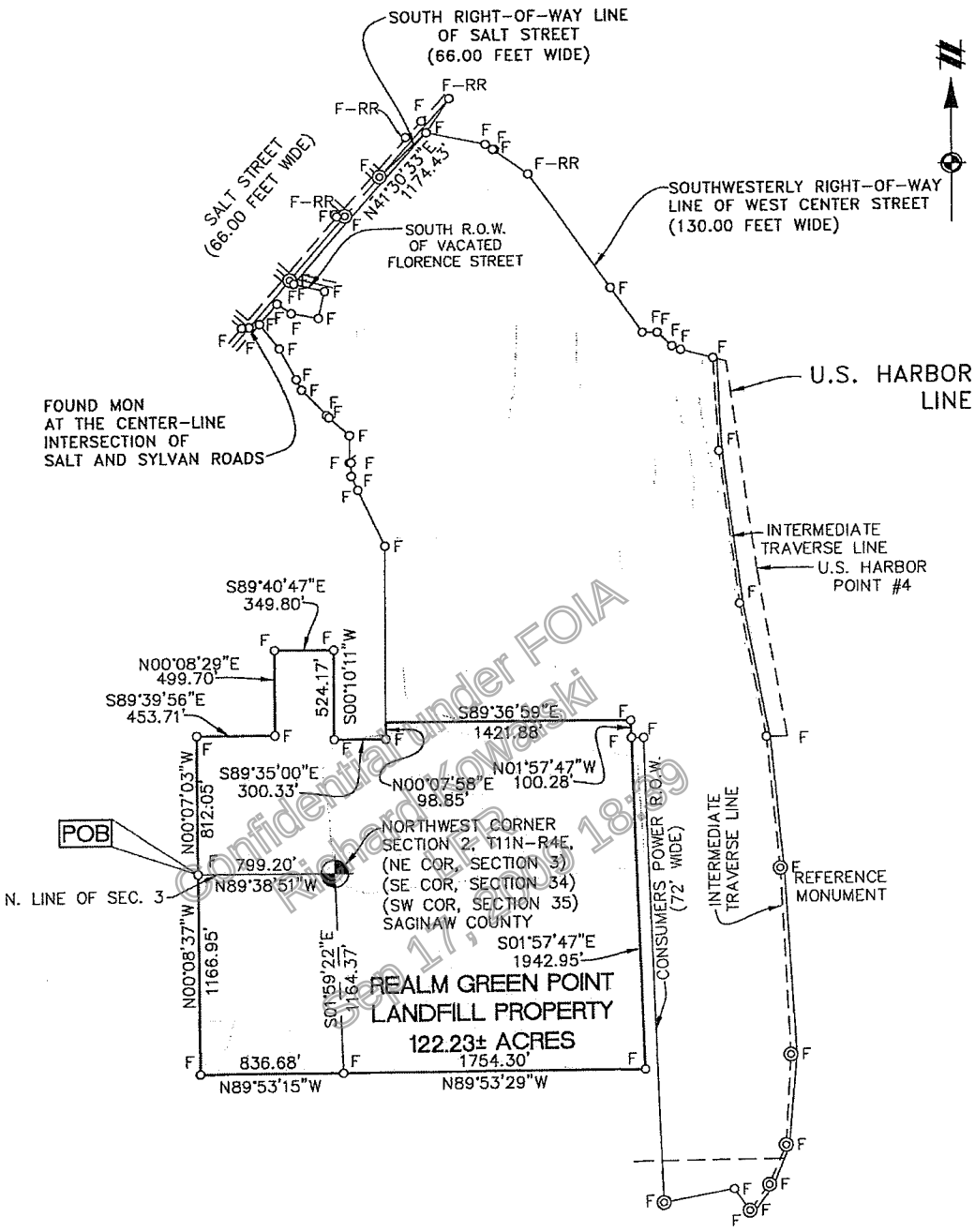
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EXHIBIT 2
GREEN POINT LANDFILL PROPERTY SURVEY AND LOCATION FIGURE

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POB	PLACE OF BEGINNING
R/W	RIGHT-OF-WAY

CLIENT: GENERAL MOTORS

SKETCH AND DESCRIPTION OF A 122.23 ACRE PARCEL OF LAND-REALM GREEN POINT LANDFILL PROPERTY LOCATED IN

SECTIONS 2, 3, 34 & 35, T11&12N, R4E
CITY OF SAGINAW
SAGINAW COUNTY, MICHIGAN

SCALE: 1 INCH =800 FEET (0 400 800)

JOB: 05000618 | CAD: 08003152SU-17
DR.: BAL | CH.: DLN
BOOK: | PG.:
SHEET 1 OF 2 | DATE: 5/13/09
FILE CODE: SU-0-17

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DECLARATION OF RESTRICTIVE COVENANT
EASTERN PROPERTY EXTENSION

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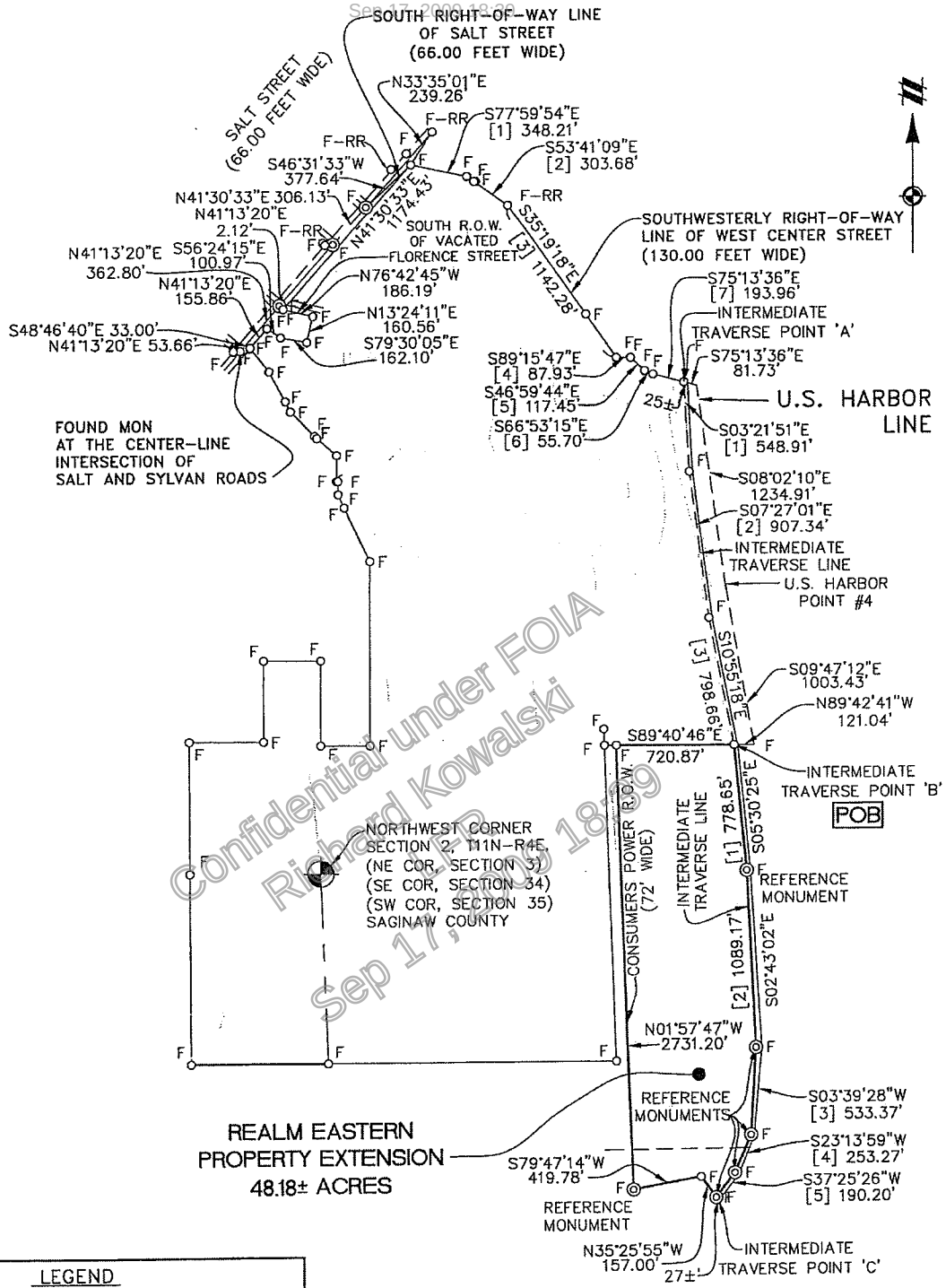
EASTERN PROPERTY EXTENSION SURVEY AND LOCATION FIGURE

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O_S	SET IRON PIPE
$◎_F$	FOUND CONCRETE MONUMENT
POB	PLACE OF BEGINNING
R/W	RIGHT-OF-WAY

CLIENT: GENERAL MOTORS

SKETCH AND DESCRIPTION OF A 48.18 ACRE PARCEL OF LAND-REALM EASTERN PROPERTY EXTENSION LOCATED IN

SECTIONS 2, 3, 34 & 35, T11&12N, R4E
CITY OF SAGINAW
SAGINAW COUNTY, MICHIGAN

SCALE: 1 INCH =800 FEET (0 400 800)

JOB: 05000618 | CAD: 08003152SU-18
DR.: BAL | CH.: DLN
BOOK: | PG.:
SHEET 1 OF 2 | DATE: 5/13/09
FILE CODE: SU-0-18

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DECLARATION OF RESTRICTIVE COVENANT
FORMER CONSUMERS PROPERTY

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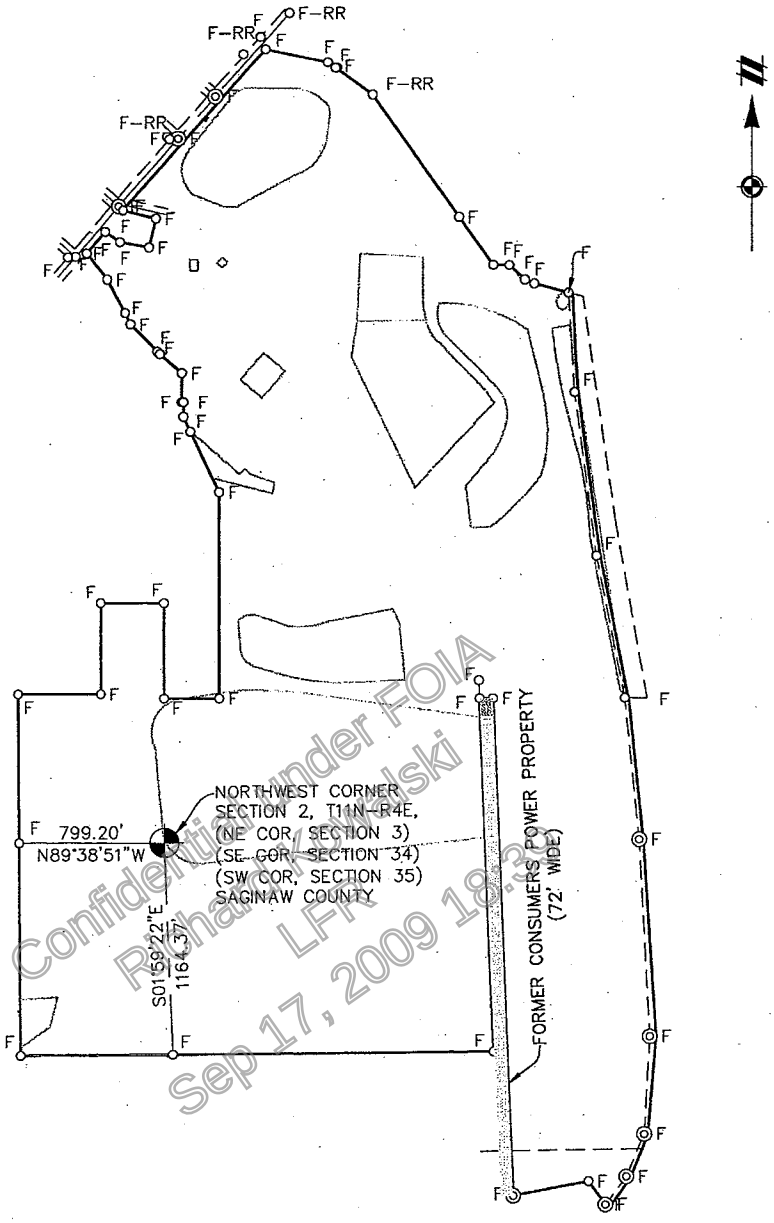
FORMER CONSUMERS PROPERTY SURVEY AND LOCATION FIGURE

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NOTES:

PROVIDED LEGAL DESCRIPTION DOES NOT MATHEMATICALLY CLOSE FOR 0.15'.

NOT SURVEYED BY ATWELL-HICKS.

LEGEND	
POB	PLACE OF BEGINNING
R/W	RIGHT-OF-WAY

CLIENT: GENERAL MOTORS

SKETCH AND DESCRIPTION OF A 72' WIDE FORMER CONSUMERS ENERGY PROPERTY LOCATED IN

SECTIONS 2, 3, 34 & 35, T11&12N, R4E
CITY OF SAGINAW
SAGINAW COUNTY, MICHIGAN

SCALE: 1 INCH = 800 FEET (0 400 800)

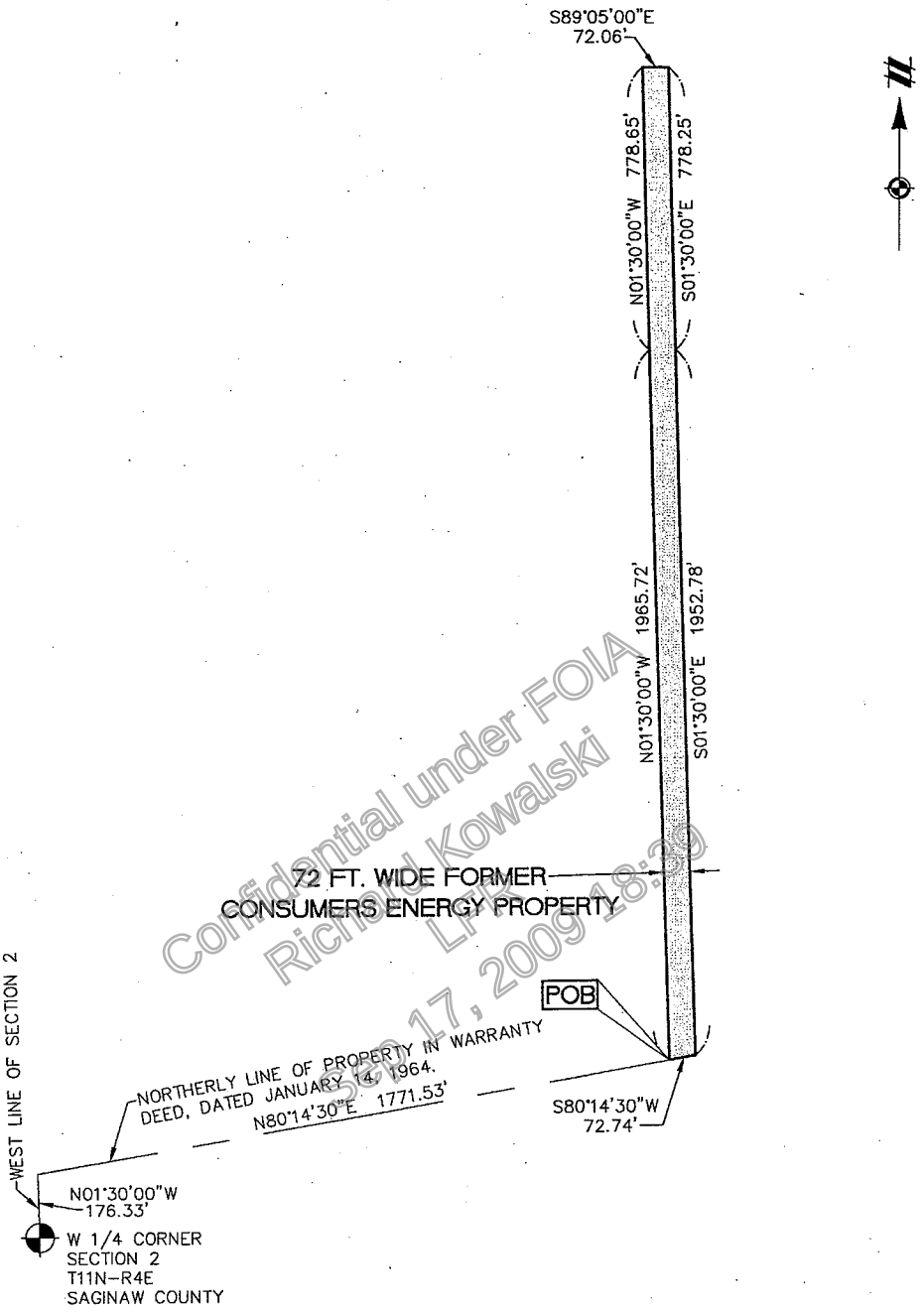
JOB: 05000618 | CAD: 08003152SU-19
DR.: BAL | CH.: DJG/DLN
BOOK: | PG.:
SHEET 1 OF 3 | DATE: 5/13/09
FILE CODE: SU-0-19

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NOTES:

PROVIDED LEGAL DESCRIPTION DOES NOT MATHEMATICALLY CLOSE FOR 0.15'.

NOT SURVEYED BY ATWELL-HICKS.

LEGEND	
POB	PLACE OF BEGINNING
R/W	RIGHT-OF-WAY

CLIENT: GENERAL MOTORS

SKETCH AND DESCRIPTION OF A 72' WIDE FORMER CONSUMERS ENERGY PROPERTY LOCATED IN SECTIONS 2, 3, 34 & 35, T11&12N, R4E CITY OF SAGINAW SAGINAW COUNTY, MICHIGAN

SCALE: 1 INCH = 400 FEET (0 200 400)

JOB: 05000618		CAD 08003152SU-19	
DR. BAL		CH. DJG/DLN	
BOOK		PG.	
SHEET 2 OF 3		DATE: 5/13/09	
FILE CODE: SU-0-19			

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REV: 5/29/09 DLN

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Attachment 2

Affidavits to Support
Unremediated Releases

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MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

AFFIDAVIT TO SUPPORT UNREMEDIATED RELEASE(S) IN A REMEDIAL ACTION PLAN

(Under the authority of Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 Act 451, as amended), and the Part 201 Administrative Rules promulgated thereunder)

STATE OF Michigan

COUNTY OF Saginaw

The purpose of this Affidavit is to set forth certain information and documentation to enable the Michigan Department of Environmental Quality (hereinafter, the "MDEQ") to make the determinations pursuant to R 299.5534 (hereinafter, "Rule 534") of the Part 201 Administrative Rules (hereinafter, the "Part 201 Rules") promulgated under Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (hereinafter, the "NREPA"). All terms found in this document which are defined in Part 3, Definitions, and Part 201 of the NREPA; and the Part 201 Rules, shall have the same meaning as in the statute and the Part 201 Rules.

The undersigned Affiant, being first duly sworn, deposes and says as follows:

1. THIS AFFIDAVIT is executed by the undersigned, William McFarland, whose title is, Director of Remediation, on behalf of the General Motors Corporation, and President, on behalf of the Remediation and Liability Management Company (hereinafter, "the Affiant") located at Engineering Center - West, Mail Code 480-111-W60, 30200 Mound Rd, Warren, MI 48090.

2. This Affidavit accompanies a Remedial Action Plan ("the RAP") prepared on behalf of the Affiant for the following properties: Saginaw Malleable Iron Property, and REALM, Inc. Green Point Landfill and Drum Remediation Area. The legal description is provided in Attachment 1.

3. The properties referred to in Item Number 2 are associated with a "Facility" as defined in Section 20101(1)(o) of the NREPA.

4. The RAP precisely describes the unremediated release at the Facility. "Unremediated release" means a release for which response activity has not been implemented that satisfies the remedial action requirements of Part 201 of the NREPA and the Part 201 Rules.

5. The Affiant is not liable for the unremediated release associated with improper waste disposal practices on property located to the west of the former Drum Remediation Area, as identified in the RAP.

6. Attached to this Affidavit is information that explains and supports the basis for the conclusion that the Affiant is not liable for the environmental contamination proposed to be omitted from remediation in the RAP.

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7. Attached to this Affidavit is documentation that demonstrates divisibility of harm and apportionment of liability as required by Section 20129 of the NREPA.

8. The Affiant acknowledges and agrees to all of the following:

   a. If the MDEQ approves the RAP referenced in Item Number 4 relying on representations about liability that are set forth in this Affidavit, the ability of the MDEQ to subsequently review the liability of the Affiant is not limited or affected by reliance on the Affidavit or approval of the RAP. Upon review of the Affidavit, supporting materials and other information available to the MDEQ at any time, the MDEQ may determine that Affiant is liable for any or all of the contamination omitted from remediation under the RAP, or that the Affiant has not met the burden of demonstrating divisibility of harm and apportionment of liability under Section 20129 of the NREPA.

   b. If the MDEQ later finds the Affiant to be liable for the Facility or to have failed to establish divisibility of harm and apportionment of liability as required by Section 20129 of the NREPA, the Affiant shall promptly undertake remedial action to address that portion of the Facility not covered by the RAP.

   c. A person who is liable who undertakes a remedial action that he or she knows will not, when complete, comprehensively address all contamination at a facility at the time the remedial action is undertaken, except as provided for in R. 299.5534 for unremediated releases, is subject to fines and penalties as provided for under Part 201 of the NREPA for failure to diligently pursue response activity under Section 20114(1)(g) of the NREPA, as well as other applicable state or federal laws.

   d. Response activity undertaken by a person who is liable that does not comprehensively address all contamination at a facility, except unremediated releases addressed through the procedure set forth in R.299.5534, is considered an interim response and not a remedial action.

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I affirm that the above representations are true and are based upon my personal knowledge and belief after all reasonable inquiry.

I certify that I am legally authorized to execute this Affidavit and to bind the Affiant to the terms and conditions of this Affidavit.

I understand that intentionally submitting false information to the MDEQ is a felony and may result in fines of up to $25,000 for each violation.

I acknowledge that this Affidavit has been provided pursuant to Rule 534 of the Part 201 Rules.

William McFarland, Affiant

William McFarland
Signature of Person Legally Authorized to Bind Affiant

5-28-09
Date

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Richard Kowalski
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Sep 17, 2009 18:39

William McFarland
Print or Type Legal Name

SUBSCRIBED AND SWORN to before me this 28 day of May, 2009 a Notary Public in and for Macomb County, Michigan.

Allicia Najor
Notary Public's Signature

My Commission Expires: April 3, 2015

ALLICIA NAJOR
NOTARY PUBLIC - STATE OF MICHIGAN
COUNTY OF MACOMB
My Commission expires April 3, 2015
Acting in the County of Macomb

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ATTACHMENT 1

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LEGAL DESCRIPTION OF SITE

The Site encompasses approximately 273 acres, and consists of the Saginaw Malleable Iron (SMI) Plant Property and the REALM Green Point Landfill and Drum Remediation Area (DRA) Property, as shown on Figures 1-1 and 1-2 in the Remedial Action Plan. The SMI Plant Property makes up the northern portion of the Site and includes the inactive SMI Plant and support facilities, including two closed Type III Landfills, two stormwater ponds, and an inoperative Water Recycle System. Foundry operations previously conducted at the SMI Plant consisted of activities related to the casting and heat treating of iron. The southern portion of the Site (now owned by REALM, Inc.) includes the closed Green Point Landfill and the DRA, where drums were previously discovered, excavated, and removed.

The Site is located approximately 1,500 feet north of the confluence of the Tittabawassee and Shiawassee Rivers and is located on the western half of Section 35, T12N, R4E, in the city of Saginaw, Saginaw County, Michigan. A legal description of the SMI Plant Property and the REALM Green Point Landfill and Drum Remediation Area Property is provided below.

SMI Plant Property Legal Description (Tax ID: 19 2231 00000)

DESCRIPTION OF A 150.97 ACRE PARCEL OF LAND
(KNOWN AS SAGINAW MALLEABLE IRON PLANT PROPERTY)

Confidential under FOIA
Richard Kowalski
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Commencing at a found monument at the center-line intersections of Salt Road (66.00 feet wide) and Sylvan Road (60.00 feet wide) being part of Sections 34 & 35, T12N, R4E, City of Saginaw, Saginaw County, Michigan; thence N41°13'20"E 53.66 feet along the center-line of said Salt Road; thence S48°46'40"E 33.00 feet perpendicular to said center-line of said Salt Road for a **PLACE OF BEGINNING**; thence N41°13'20"E 155.86 feet along the Southeasterly Right-of-Way line of said Salt Road; thence S56°24'15"E 100.97 feet; thence S79°30'05"E 162.10 feet; thence N13°24'11"E 160.56 feet; thence along the Southwesterly Right-of-Way line of vacated relocated Florence Street (66.00 feet wide) as recorded thereof in Liber 1269, Page 348 of Saginaw County Records, N76°42'45"W 186.19 feet to the said Southeasterly Right-of-Way line of said Salt Road, said point being S44°49'19"E 33.08 feet from a found monument at the center-line of said Salt Road; thence N41°13'20"E 2.12 feet along the Southeasterly Line of said Salt Road; thence N41°30'33"E 1174.43 feet continuing along said Southeasterly Right-of-Way line of said Salt Road to the Southwesterly Right-of-Way Line of West Center Street (130.00 feet wide) for the following seven (7) courses: [1]S77°59'54"E 348.21 feet; [2]S53°41'09"E 303.68 feet; [3]S35°19'18"E 1142.28 feet; [4]S89°15'47"E 87.93 feet; [5]S46°59'44"E 117.45 feet; [6]S66°53'15"E 55.70 feet; [7]S75°13'36"E 193.96 feet to an intermediate traverse point "A"; said point "A" being N75°13'36"W 81.73 feet from the United States Harbor Line as recorded thereof in Liber 2194 Page 1169 of Saginaw County Records; thence S75°13'36"E 25 feet, plus or minus, to the Westerly Edge of Water of the Saginaw River; thence the following three (3) courses along an intermediate traverse line from aforementioned Intermediate Traverse point "A":[1] S03°21'51"E 548.91 feet, [2]S07°27'01"E 907.34 feet,[3] S10°55'18"E 798.66 feet to an Intermediate Traverse Point "B"; said point "B" being N89°42'41"W 121.04 feet from said United States Harbor Line; thence N89°40'46"W 720.87 feet to the East line of Consumers Power Company Right-of-Way (72.00 feet wide) as recorded thereof in Liber 1106 Pages, 426 & 427; thence N89°34'47"W 72.06 feet along the North line of said Right-of-Way; thence N01°57'47"W 100.28; thence N89°36'59"W 1421.88 feet; thence

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N00°07'58"E 1033.08 feet; thence N25°14'05"W 365.55 feet; thence N24°37'18"W 89.80 feet; thence N00°17'27"W 80.90 feet; thence N89°46'34"W 8.85 feet; thence N00°13'22"E 159.80 feet; thence N48°10'04"W 158.71 feet; thence N44°27'28"W 229.01 feet; thence N26°08'40"W 69.66 feet; thence N28°53'40"W 207.15 feet; thence N38°36'14"W 183.21 feet to the PLACE OF BEGINNING. Containing 150.97 acres of land, more or less, subject to easements, conditions, restrictions and exceptions of record, if any.

REALM Green Point Landfill and Drum Remediation Area Property Legal Description (Tax ID: 19 2249 00000)

DESCRIPTION OF A 122.23 ACRE PARCEL OF LAND
(REALM, INC. PROPERTY)

Commencing at the Northwest Corner of Section 2, being part of Sections 34 & 35, T12N, R4E, and part of Sections 2 & 3, T11N, R4E, City of Saginaw, Saginaw County, Michigan; thence N89°38'51"W 799.20 feet along the North line of said Section 2 for a **PLACE OF BEGINNING**; thence N00°07'03"W 812.05 feet; thence S89°39'56"E 453.71 feet; thence N00°08'29"E 499.70 feet; thence S89°40'47"E 349.80 feet; thence S00°10'11"W 524.17 feet; thence S89°35'00"E 300.33 feet; thence N00°07'58"E 98.85 feet; thence S89°36'59"E 1421.88 feet; thence S01°57'47"E 100.28 feet to the West line of Consumers Power Company Right-of-Way (72.00 feet wide) as recorded thereof in Liber 1106 Pages, 426 & 427; thence S01°57'47"E 1942.95 feet along said Consumers Power Company Right-of-Way; thence N89°53'29"W 1754.30 feet to a point being S01°59'22"E 1164.37 feet from the Northeast corner of said Section 3; thence N89°53'15"W 836.68 feet; thence N00°08'37"W 1166.95 feet to the Place of Beginning. Containing 122.23 acres of land, more or less, subject to easements, conditions, restrictions and exceptions of record, if any.

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During completion of the Remedial Investigation, elevated concentrations of volatile organic compounds (VOCs) were detected in a groundwater sample in the former Drum Remediation Area Hillock Area, located in the southwest corner of the Green Point Landfill property. Through the course of investigation, a drain tile from the adjacent property was located and sampled, confirming that the detected constituents were present in water draining from the neighboring property, which is believed to have been used for waste disposal activities. The neighboring property currently contains scattered debris and scrap vehicles that are visible at the ground surface. The sections of the Remedial Investigation Report that detail the investigation completed in this area follow.

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REPORT

FINAL

General Motors Corporation Saginaw Malleable Iron Plant Property, and REALM, Inc. Green Point Landfill and Drum Remediation Area Saginaw, Michigan

Remedial Investigation Report Volume I of V

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July 5, 2001

BBL®
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

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4.5.1.3 Soil Sampling for Appendix IX Parameters

On February 8, 1995 one native soil sample was collected and analyzed for Appendix IX constituents from soil boring MW-126WT, located in the Former Hillock Area of the DRA. The native soil sample was collected from soil boring MW-126WT at a depth interval of 14 to 16 feet bgs. Analytical results are presented in Tables 4-67 through 4-71.

Organic Compounds

No generic IDWP, IDC, GCCP, or CSAT values for VOCs were exceeded in the sample collected from MW-126. SVOCs, dioxins, furans, PCBs, pesticides, and herbicides were not detected above the laboratory detection limits for soil sample MW-126WT.

Inorganic Constituents

The generic IDWP value for cobalt (2,000 ug/kg) was exceeded in the sample collected from MW-126 (9,370 ug/kg).

4.5.1.4 Former Hillock Area Soils Removal

Soils from the Hillock Area of the DRA were removed in February 1997. Excavation of the DRA Hillock was completed on February 6, 1997. Details relating to these excavation efforts were transmitted to the state in the March 18, 1997 monthly report (Saroff, March 1997). A total of 27,125 cubic yards of soil were removed from the Hillock Area and placed within the Green Point Landfill. In addition, five drums from the Hillock Area were located within the excavated materials. The drums were sampled, and shipped off site for appropriate disposal by GM.

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4.5.1.5 Wetland Mitigation Area Soil and Groundwater Investigation

Due to construction of the Green Point Landfill cap, which extended over adjacent wetland areas, GM proposed several on-site wetland mitigation areas. To address soil quality in the proposed mitigation areas, soil samples were collected from six soil boring locations. The soil samples were analyzed for TCL VOCs, SVOCs, PCBs, and TAL inorganic constituents. A summary of laboratory analytical data is presented in Tables 4-67 to 4-71.

Groundwater samples were collected from two temporary monitoring wells to investigate groundwater quality in the proposed wetland mitigation area. The groundwater samples were analyzed for TCL VOCs, SVOCs, total and dissolved PCBs, and dissolved TAL inorganic constituents. A summary of laboratory analytical data is presented in Tables 4-21, 4-27, 4-31, and 4-44, and the data are discussed below.

Organic Compounds

Cis-1,2-dichloroethene was the only VOC detected in soils. It was detected at one location, WMB-1 (3 – 3.5'), at a concentration of 7.4 ug/kg. Several SVOCs, primarily PAHs, were detected in soils at several locations (WMB-1, WMB-2, WMB-3, and WMB-4). No PCBs were detected in soil samples from WMB-1 through WMB-6.

Chlorinated VOCs (cis-1,2-dichloroethene, trichloroethene, and vinyl chloride) were detected in the groundwater sample from TWW-1. These concentrations exceed the generic MDEQ IDW criteria for cis-1,2-dichloroethene (70 ug/L), trichloroethene (5.0 ug/L), and vinyl chloride (2.0 ug/L). The GCC for vinyl chloride (570 ug/L) was also exceeded at this location. No SVOCs or PCBs were detected in groundwater samples from TWW-1 or TWW-2.

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The groundwater analytical data prompted additional investigation, and is discussed in Section 4.5.1.6.

Inorganic Constituents

No generic GCCP or IDC values for inorganics were exceeded in soil samples. Summary statistics of the inorganic constituents detected above the higher of the generic IDWP values and the SDBLs are presented below.

DRUM REMEDIATION AREA – WETLAND MITIGATION AREA SOIL SAMPLES					
Inorganics	Number of Times			Concentration Range (ug/kg)	Generic IDWP Criteria (ug/kg)
	Analyzed	Detected	Exceeded		
Aluminum	6	6	6	4,480,000 – 14,700,000	4,300
Cobalt	6	1	1	ND – 7,820	6,800
Iron	6	6	2	6,280,000 – 44,600,000	12,000,000
Manganese	6	6	1	114,000 – 1,170,000	440,000

Notes:
ND = Not detected.
Refer to Subsurface Soil Analytical Data Tables for MDEQ criteria qualifiers.
Site-specific background values have been substituted for MDEQ criteria for cobalt, iron, and manganese.

Three inorganic constituents were detected in groundwater from TWW-1 and/or TWW-2. No generic GCC criteria values were exceeded for these samples. The generic IDW criteria for manganese and sodium were exceeded at TWW-1. The generic IDW criteria for thallium was exceeded at TWW-2 during two sampling events (Figure 4-17).

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4.5.1.6 Supplemental Groundwater Investigations

The detection of chlorinated VOCs in groundwater at TWW-1 prompted additional groundwater investigation in the DRA. Results of these additional investigations are presented in Table 4-72 .

In August 1998, two new temporary monitoring wells (TW-241WT and TW-242) were installed along the western property boundary, upgradient of temporary well TWW-1. Groundwater samples were collected from the two new wells and from TWW-1, and analyzed for TCL VOCs. As shown on Figure 4-20, VOCs were not detected at the northern-most well (TW-241WT). At the second new well, 1,2-dichloroethene was detected at a concentration of 1.5 ug/L, a concentration significantly lower than the total VOC concentration of 622 ug/L previously detected at MW-126WT to the south along the property boundary.

Groundwater samples were collected from ten additional temporary well points placed in the vicinity of TWW-1 in May 1999. The analytical data are show in Table 4-72 and on Figure 4-20. Summary statistics of the constituents detected above the IDW criteria during the initial Wetland Mitigation Area investigation and the supplemental groundwater investigations are presented below.

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DRUM REMEDIAITON AREA – SUPPLEMENTAL GROUNDWATER INVESTIGATIONS					
VOCs	Number of Times			Concentration Range (ug/L)	Generic IDW Criteria (ug/L)
	Analyzed	Detected	Exceeded		
1,1-Dichloroethene	17	1	1	ND – 51	7.0
1,2-Dichloroethene, Total	15	8	5	ND – 11,000	70
Methylene chloride	17	3	3	ND – 54	5.0
Trichloroethene	17	1	1	ND – 630	5.0
Vinyl chloride	17	12	10	ND – 2,300	2.0

Notes:
Refer to DRA Groundwater Analytical Data Tables for MDEQ criteria qualifiers.

4.5.1.7 Supplemental Test Pit Investigation

In August 2000, a test pit program was initiated in the vicinity of temporary monitoring well TWW-1 to look for a possible point source for the VOCs detected in groundwater. Test pits were completed radially outward from TWW-1, as shown in Figure 4-20. A drain tile was found extending in an east-west direction from the adjacent junkyard property and passing approximately 10 feet south of TWW-1. No fill or waste materials were observed in any of the test pits. Survey data demonstrated a grade within the drain tile from west to east, and flow within the tile was observed. Water samples were collected from the up- and down-stream sections of the tile, and analyses were completed for VOCs, PCBs, and inorganic constituents. The constituents detected in the drain tile samples are the same as those detected at TWW-1. The analytical data are shown in Tables 4-73 through 4-75.

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Organic Compounds

Chlorinated VOCs (1,1-dichloroethane, cis-1,2-dichloroethene, and vinyl chloride) were detected in water samples collected from upstream and downstream sections of the drain tile. No generic GCC, FESL, or WSSL values were exceeded in these samples. The concentration of cis-1,2-dichloroethene in the downstream sample (170 ug/L) exceeded the generic MDEQ IDW criteria (70 ug/L). The concentrations of vinyl chloride in both the upstream (37 ug/L) and downstream (80 ug/L) sections of the drain tile exceeded the generic MDEQ IDW criteria (2.0 ug/L).

PCBs were not detected in unfiltered water from either the upstream or downstream section of the drain tile.

Inorganic Constituents

No generic GCC values for inorganics were exceeded in the drain tile samples. The generic IDW criteria for dissolved manganese (2,100 ug/L) was exceeded in both the upstream (5,730 ug/L) and downstream (2,810 ug/L) drain tile samples.

4.5.2 Green Point Landfill Leachate Assessment

To assess the need for a leachate management plan for the Green Point Landfill, groundwater and leachate analytical data for samples collected from monitoring wells located within or in close proximity to the Landfill were evaluated. Results of the Leachate Assessment may be found in the *Combined CEDR and 35 Percent Design Report* submitted to the MDEQ in February 1996 (BBL, February 1996). A summary of this evaluation is presented below, updated based on revised MDEQ criteria.

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6.2.2 Site Interior

Drum Remediation Area

Soil samples were collected from test pits that were located in the DRA Hillock. Analyses indicated VOCs, SVOCs, and PCBs in one or more samples at concentrations exceeding the MDEQ generic IDC criteria. The soil and fill that comprise the DRA Hillock were excavated and placed within the fill materials of the Green Point Landfill prior to capping.

One monitoring well (MW-126WT) was installed within the DRA Hillock Area, and additional monitoring wells were installed along the southern perimeter of the site, just south of the DRA. Groundwater collected from monitoring well MW-126WT was found to contain VOCs (vinyl chloride, cis-1,2-dichloroethene, and TCE), and one SVOC (bis[2-ethylhexyl]phthalate) at concentrations above the generic RDW criteria. This well was screened within the fill materials that have since been excavated and moved to the Green Point Landfill. The former well location is also hydraulically downgradient of a junkyard located on the adjacent property. Groundwater samples collected from the monitoring wells located along the downgradient southern perimeter of the area were found to contain only iron at concentrations above criteria. VOCs were detected at a shallow temporary well installed north of the former DRA hillock. A series of groundwater samples were collected from locations surrounding the temporary well. A test pit program was subsequently implemented to look for the source of the VOCs detected at the temporary well and surrounding groundwater sample locations. During the test pit program, a concrete drain tile was found that extends from the neighboring junkyard property, passing approximately 10 feet south of the temporary monitoring well. Flow within the pipe is from west to east, onto the REALM property. The drain tile was sampled at the property boundary and at a location south and east of the temporary well. The same group of VOC constituents previously detected at the temporary well were detected in water samples obtained from the pipe (both upstream and downstream samples). These results indicate migration of VOCs to the site from an off-site source.

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Green Point Landfill

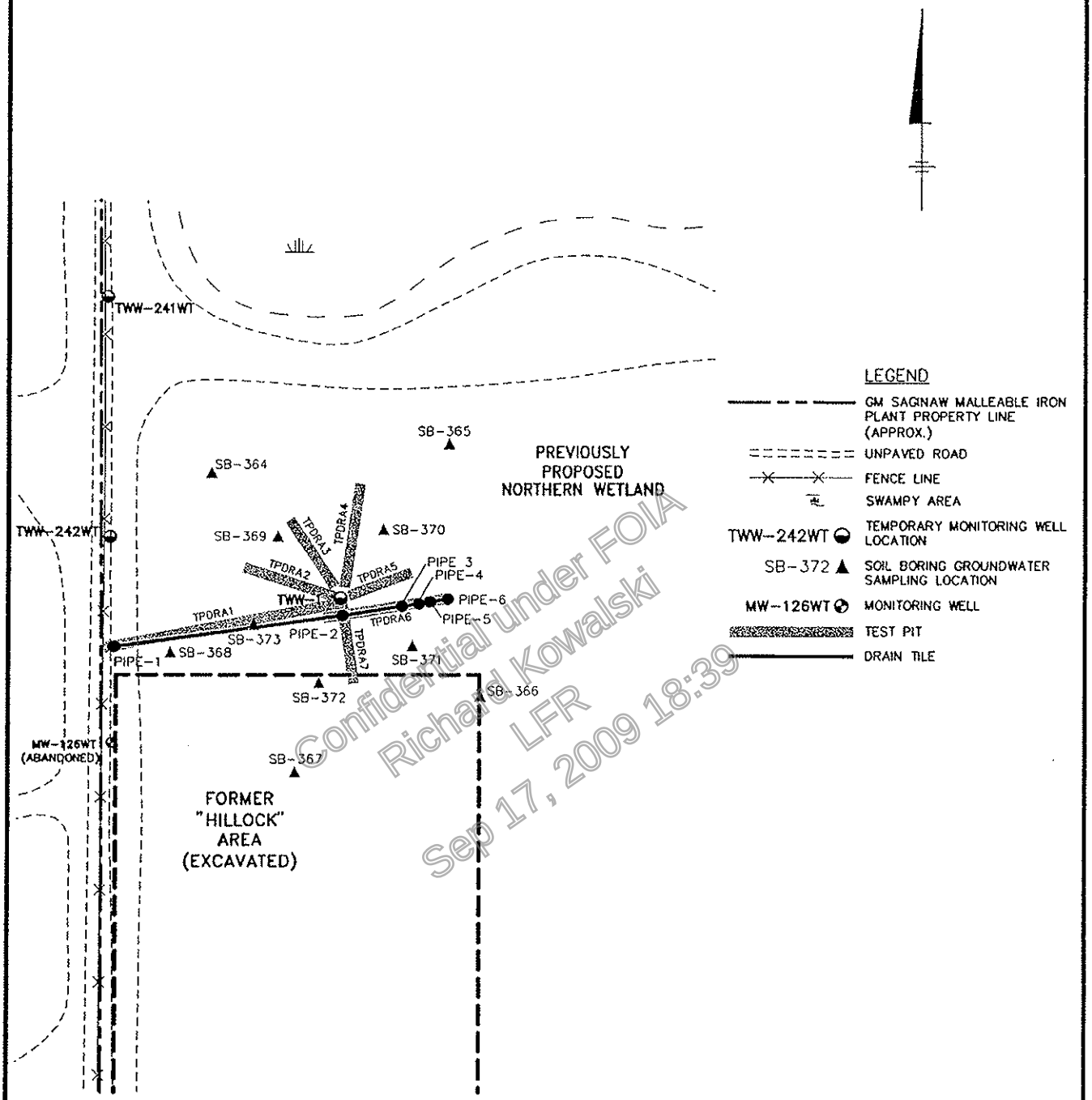
Samples were collected of the leachate within the Green Point Landfill and groundwater samples were collected from locations immediately below and surrounding the landfill. The following constituents were detected at concentrations above generic IDW criteria: benzene, 1,4-dioxane, vinyl chloride, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, bis(2-ethylhexyl)phthalate, PCB Aroclors 1242 (within leachate samples only), 1248, and 1254, manganese, sodium, iron, lead, aluminum, antimony, barium, magnesium, and nickel. The distribution of these constituents in the subsurface in the areas surrounding the landfill appears to be limited, with concentrations above criteria observed at wells screened within the landfill or at locations at the landfill perimeter. The landfill cap has been completed, limiting the infiltration of precipitation, with the anticipated result of reducing the hydraulic mound previously interpreted at the landfill. A post-closure groundwater monitoring program is being implemented.

Former UST # 7

Lead and BTEX constituents were detected in subsurface soil and groundwater in the immediate vicinity of the former UST #7. The subsurface impacts appear to be limited to a small area, and the natural attenuation processes of soil sorption and intrinsic biodegradation via methanogenesis and sulfate reduction are ongoing in the area, as discussed in the Former UST #7 Area, Supplemental Investigation Report (BBL, May 1997). An MDEQ-approved interim action consisting of monitored natural attenuation is being implemented in this area of the site.

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GRAPHIC SCALE

SAGINAW MALLEABLE IRON PLANT PROPERTY,
GREEN POINT LANDFILL,
AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

REMEDIAL INVESTIGATION

DRA SUPPLEMENTAL MONITORING WELL, SOIL BORING, AND TEST PIT LOCATION MAP

BBL BLASLAND, BOUCK & LEE, INC. engineers & scientists

FIGURE 2-6

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MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

AFFIDAVIT TO SUPPORT UNREMEDIATED RELEASE(S) IN A REMEDIAL ACTION PLAN

(Under the authority of Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 Act 451, as amended), and the Part 201 Administrative Rules promulgated thereunder)

STATE OF Michigan

COUNTY OF Saginaw

The purpose of this Affidavit is to set forth certain information and documentation to enable the Michigan Department of Environmental Quality (hereinafter, the "MDEQ") to make the determinations pursuant to R 299.5534 (hereinafter, "Rule 534") of the Part 201 Administrative Rules (hereinafter, the "Part 201 Rules") promulgated under Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (hereinafter, the "NREPA"). All terms found in this document which are defined in Part 3, Definitions, and Part 201 of the NREPA; and the Part 201 Rules, shall have the same meaning as in the statute and the Part 201 Rules.

The undersigned Affiant, being first duly sworn, deposes and says as follows:

1. THIS AFFIDAVIT is executed by the undersigned, William McFarland, whose title is, Director of Remediation, on behalf of the General Motors Corporation, and President, on behalf of the Remediation and Liability Management Company (hereinafter, "the Affiant") located at Engineering Center - West, Mail Code 480-111-W60, 30200 Mound Rd, Warren, MI 48090.

2. This Affidavit accompanies a Remedial Action Plan ("the RAP") prepared on behalf of the Affiant for the following properties: Saginaw Malleable Iron Property, and REALM, Inc. Green Point Landfill and Drum Remediation Area. The legal description is provided in Attachment 1.

3. The properties referred to in Item Number 2 are associated with a "Facility" as defined in Section 20101(1)(o) of the NREPA.

4. The RAP precisely describes the unremediated release at the Facility. "Unremediated release" means a release for which response activity has not been implemented that satisfies the remedial action requirements of Part 201 of the NREPA and the Part 201 Rules.

5. The Affiant is not liable for the unremediated release associated with the former City of Saginaw Queen Street (Center Street) waste disposal area, as identified in the RAP and described in Attachment 2.

6. Attached to this Affidavit is information that explains and supports the basis for the conclusion that the Affiant is not liable for the environmental contamination proposed to be omitted from remediation in the RAP.

7. Attached to this Affidavit is documentation that demonstrates divisibility of harm and apportionment of liability as required by Section 20129 of the NREPA.

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8. The Affiant acknowledges and agrees to all of the following:

   a. If the MDEQ approves the RAP referenced in Item Number 4 relying on representations about liability that are set forth in this Affidavit, the ability of the MDEQ to subsequently review the liability of the Affiant is not limited or affected by reliance on the Affidavit or approval of the RAP. Upon review of the Affidavit, supporting materials and other information available to the MDEQ at any time, the MDEQ may determine that Affiant is liable for any or all of the contamination omitted from remediation under the RAP, or that the Affiant has not met the burden of demonstrating divisibility of harm and apportionment of liability under Section 20129 of the NREPA.

   b. If the MDEQ later finds the Affiant to be liable for the Facility or to have failed to establish divisibility of harm and apportionment of liability as required by Section 20129 of the NREPA, the Affiant shall promptly undertake remedial action to address that portion of the Facility not covered by the RAP.

   c. A person who is liable who undertakes a remedial action that he or she knows will not, when complete, comprehensively address all contamination at a facility at the time the remedial action is undertaken, except as provided for in R. 299.5534 for unremediated releases, is subject to fines and penalties as provided for under Part 201 of the NREPA for failure to diligently pursue response activity under Section 20114(1)(g) of the NREPA, as well as other applicable state or federal laws.

   d. Response activity undertaken by a person who is liable that does not comprehensively address all contamination at a facility, except unremediated releases addressed through the procedure set forth in R.299.5534, is considered an interim response and not a remedial action.

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I affirm that the above representations are true and are based upon my personal knowledge and belief after all reasonable inquiry.

I certify that I am legally authorized to execute this Affidavit and to bind the Affiant to the terms and conditions of this Affidavit.

I understand that intentionally submitting false information to the MDEQ is a felony and may result in fines of up to $25,000 for each violation.

I acknowledge that this Affidavit has been provided pursuant to Rule 534 of the Part 201 Rules.

William McFarland, Affiant

William McFarland
Signature of Person Legally Authorized to Bind Affiant

5-28-09
Date

William McFarland
Print or Type Legal Name

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SUBSCRIBED AND SWORN to before me this 28 day of May, 2009, a Notary Public in and for Macomb County, Michigan.

Allicia Najor
Notary Public's Signature

My Commission Expires: April 3, 2015

ALLICIA NAJOR
NOTARY PUBLIC – STATE OF MICHIGAN
COUNTY OF MACOMB
My Commission expires April 3, 2015
Acting In the County of Macomb

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LEGAL DESCRIPTION OF SITE

The Site encompasses approximately 273 acres, and consists of the Saginaw Malleable Iron (SMI) Plant Property and the REALM Green Point Landfill and Drum Remediation Area (DRA) Property, as shown on Figures 1-1 and 1-2 in the Remedial Action Plan. The SMI Plant Property makes up the northern portion of the Site and includes the inactive SMI Plant and support facilities, including two closed Type III Landfills, two stormwater ponds, and an inoperative Water Recycle System. Foundry operations previously conducted at the SMI Plant consisted of activities related to the casting and heat treating of iron. The southern portion of the Site (now owned by REALM, Inc.) includes the closed Green Point Landfill and the DRA, where drums were previously discovered, excavated, and removed.

The Site is located approximately 1,500 feet north of the confluence of the Tittabawassee and Shiawassee Rivers and is located on the western half of Section 35, T12N, R4E, in the city of Saginaw, Saginaw County, Michigan. A legal description of the SMI Plant Property and the REALM Green Point Landfill and Drum Remediation Area Property is provided below.

SMI Plant Property Legal Description (Tax ID: 19 2231 00000)

DESCRIPTION OF A 150.97 ACRE PARCEL OF LAND (KNOWN AS SAGINAW MALLEABLE IRON PLANT PROPERTY)

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Commencing at a found monument at the center-line intersections of Salt Road (66.00 feet wide) and Sylvan Road (60.00 feet wide) being part of Sections 34 & 35, T12N, R4E, City of Saginaw, Saginaw County, Michigan; thence N41°13'20"E 53.66 feet along the center-line of said Salt Road; thence S48°46'40"E 33.00 feet perpendicular to said center-line of said Salt Road for a **PLACE OF BEGINNING**; thence N41°13'20"E 155.86 feet along the Southeasterly Right-of-Way line of said Salt Road; thence S56°24'15"E 100.97 feet; thence S79°30'05"E 162.10 feet; thence N13°24'11"E 160.56 feet; thence along the Southwesterly Right-of-Way line of vacated relocated Florence Street (66.00 feet wide) as recorded thereof in Liber 1269, Page 348 of Saginaw County Records, N76°42'45"W 186.19 feet to the said Southeasterly Right-of-Way line of said Salt Road, said point being S44°49'19"E 33.08 feet from a found monument at the center-line of said Salt Road; thence N41°13'20"E 2.12 feet along the Southeasterly Line of said Salt Road; thence N41°30'33"E 1174.43 feet continuing along said Southeasterly Right-of-Way line of said Salt Road to the Southwesterly Right-of-Way Line of West Center Street (130.00 feet wide) for the following seven (7) courses: [1]S77°59'54"E 348.21 feet; [2]S53°41'09"E 303.68 feet; [3]S35°19'18"E 1142.28 feet; [4]S89°15'47"E 87.93 feet; [5]S46°59'44"E 117.45 feet; [6]S66°53'15"E 55.70 feet; [7]S75°13'36"E 193.96 feet to an intermediate traverse point "A"; said point "A" being N75°13'36"W 81.73 feet from the United States Harbor Line as recorded thereof in Liber 2194 Page 1169 of Saginaw County Records; thence S75°13'36"E 25 feet, plus or minus, to the Westerly Edge of Water of the Saginaw River; thence the following three (3) courses along an intermediate traverse line from aforementioned Intermediate Traverse point "A":[1] S03°21'51"E 548.91 feet, [2]S07°27'01"E 907.34 feet,[3] S10°55'18"E 798.66 feet to an Intermediate Traverse Point "B"; said point "B" being N89°42'41"W 121.04 feet from said United States Harbor Line; thence N89°40'46"W 720.87 feet to the East line of Consumers Power Company Right-of-Way (72.00 feet wide) as recorded thereof in Liber 1106 Pages, 426 & 427; thence N89°34'47"W 72.06 feet along the North line of said Right-of-Way; thence N01°57'47"W 100.28; thence N89°36'59"W 1421.88 feet; thence

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N00°07'58"E 1033.08 feet; thence N25°14'05"W 365.55 feet; thence N24°37'18"W 89.80 feet; thence N00°17'27"W 80.90 feet; thence N89°46'34"W 8.85 feet; thence N00°13'22"E 159.80 feet; thence N48°10'04"W 158.71 feet; thence N44°27'28"W 229.01 feet; thence N26°08'40"W 69.66 feet; thence N28°53'40"W 207.15 feet; thence N38°36'14"W 183.21 feet to the PLACE OF BEGINNING. Containing 150.97 acres of land, more or less, subject to easements, conditions, restrictions and exceptions of record, if any.

REALM Green Point Landfill and Drum Remediation Area Property Legal Description (Tax ID: 19 2249 00000)

DESCRIPTION OF A 122.23 ACRE PARCEL OF LAND
(REALM, INC. PROPERTY)

Commencing at the Northwest Corner of Section 2, being part of Sections 34 & 35, T12N, R4E, and part of Sections 2 & 3, T11N, R4E, City of Saginaw, Saginaw County, Michigan; thence N89°38'51"W 799.20 feet along the North line of said Section 2 for a **PLACE OF BEGINNING**; thence N00°07'03"W 812.05 feet; thence S89°39'56"E 453.71 feet; thence N00°08'29"E 499.70 feet; thence S89°40'47"E 349.80 feet; thence S00°10'11"W 524.17 feet; thence S89°35'00"E 300.33 feet; thence N00°07'58"E 98.85 feet; thence S89°36'59"E 1421.88 feet; thence S01°57'47"E 100.28 feet to the West line of Consumers Power Company Right-of-Way (72.00 feet wide) as recorded thereof in Liber 1106 Pages 426 & 427; thence S01°57'47"E 1942.95 feet along said Consumers Power Company Right-of-Way; thence N89°53'29"W 1754.30 feet to a point being S01°59'22"E 1164.37 feet from the Northeast corner of said Section 3; thence N89°53'15"W 836.68 feet; thence N00°08'37"W 1166.95 feet to the Place of Beginning. Containing 122.23 acres of land, more or less, subject to easements, conditions, restrictions and exceptions of record, if any.

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ATTACHMENT 2

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A former public waste dumping area, referred to as the Queen Street Dump, was located in the vicinity of existing Center Street at the northern end of the Saginaw Malleable Iron Plant property, and extending off site to the north. Sanborn Fire Insurance Maps show a *"Dumping Ground"* in this area in 1950 and 1967 (Map #210). This dump was active prior to the development of modern waste management practices and laws enacted to control such activities and ensure protectiveness. This dumping area was not associated with any known GM activity or source, and was acquired through the purchase of land to expand the manufacturing facility. Once acquired by GM, the area was used as a landscaped entryway into the plant property. Aerial photos from 1970 show a newly constructed plant access driveway at the former location of Queen Street.

Subsurface investigations were conducted in this area during the Remedial Investigation, and waste materials were identified at depths of 13 to 17 feet, and were found to correlate with the presence of oil sheens on the water table. Key sections of the Remedial Investigation Report that detail the investigation completed in this area follow.

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REPORT

FINAL

General Motors Corporation Saginaw Malleable Iron Plant Property, and REALM, Inc. Green Point Landfill and Drum Remediation Area Saginaw, Michigan

Remedial Investigation Report Volume I of V

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July 5, 2001

BBL®
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

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MONITORING WELLS - B-3 OIL SHEEN INVESTIGATION AREA					
VOCs	Number of Times			Concentration Range (ug/L)	Generic IDW Criteria (ug/L)
	Analyzed	Detected	Exceeded		
Benzene	16	12	6	ND - 10	5.0
Vinyl Chloride	16	2	2	ND - 31	2.0

Notes:
ND = Not detected.
Refer to Permanent Monitoring Well Analytical Data Tables for MDEQ criteria qualifiers.

No generic GCC, FESL, or WSSL values were exceeded in these samples.

Semivolatile Organic Compounds (Figures 4-7 and 4-9)

Select SVOCs were detected in groundwater samples from four of the monitoring wells (MW-143WT, MW-144WT, X-1A, and X-1CR) involved in the oil sheen investigation. No generic IDW, GCC, FESL or WSSL values were exceeded in these samples.

Polychlorinated Biphenyls (PCBs) (Figure 4-10)

PCBs were detected in unfiltered groundwater samples collected from monitoring wells in the X-1 cluster. PCBs exceeding generic IDW values are summarized below.

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MONITORING WELLS - B-3 OIL SHEEN INVESTIGATION AREA					
PCBs, unfiltered	Number of Times			Concentration Range (ug/L)	Generic IDW Criteria (ug/L)
	Analyzed	Detected	Exceeded		
Aroclor-1248	13	6	2	ND - 1.9	0.50
Aroclor-1254	13	1	1	ND - 1.1	0.50
Total Aroclors	13	6	2	ND - 3.0	0.50

Notes:
ND = Not detected.

PCBs were detected above generic MDEQ IDW criteria in unfiltered samples collected from monitoring wells X-1A and X-1B during the July 1995 sampling event. Concentrations of PCBs in these wells have decreased over time. Samples collected from monitoring wells X-1A and X-1B during the May 2000 sampling event had reported PCB concentrations of 0.13 ug/L and 0.097 ug/L, respectively.

No PCBs have been detected in filtered samples from the X-1 cluster. PCBs were not detected in unfiltered or filtered groundwater samples collected from the monitoring wells adjacent to the X-1 monitoring cluster that were included in the B-3 Oil Sheen Investigation.

4.5.9 Center Street Oil Sheen Investigation

The delineation of the Center Street oil sheens was completed through a series of monitoring well and soil boring installations conducted between January and June 1995 (see Section 2.2.8). The results of this investigation were

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presented to the MDEQ in the *Center Street Oil Sheen Supplemental Investigation Report* (BBL, April 1997) and are summarized below.

Table 4-110 summarizes the monitoring wells, temporary wells and soil borings installed in the Center Street Area. The horizontal extent of the oil sheen is depicted on Figure 2-11, and shows the monitoring wells and borings at which oil sheens were observed in soil samples. The observed oil sheens are distributed in two areas along Center Street, one at the intersection between Center Street and the plant access road (MW-103 cluster, MW-145WT, and SB-315), and one further south along the plant access road (MW-104 cluster, MW-146WT, SB-319, SB-320, and SB-321). The vertical distribution of the oil sheens appears to correspond to the water table and the depth of the fill materials observed in this area. The oil sheens observed in the monitoring wells and soil borings were identified at depths ranging from 8 to 12 feet bgs. The water table depth observed during the installation of these wells and borings was typically about 12 to 13 feet bgs. Typically the fill materials present were encountered to depths ranging from 13 to 17 feet bgs.

4.5.9.1 Soil Boring Program

The analytical characterization of the oil sheens was performed using soil samples collected from soil borings SB-319 (14 to 16 feet bgs) and MW-145WT (7 to 17 feet bgs). Both soil samples were analyzed for TCL VOCs, TCL SVOCs, TCL PCBs, and an oil characterization scan by USEPA Method 8015A. The soil analytical results are summarized in Tables 4-111 through 4-113 for the parameters listed above.

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Volatile Organic Compounds

A detailed summary of the analytical results for the VOCs is presented in Table 4-111. Select VOCs were detected in both soil samples. No compounds exceeded the generic IDWP, GCCP, IDC, or CSAT values for VOCs.

Semivolatile Organic Compounds

A detailed summary of the analytical results for the SVOCs is presented in Table 4-80. Select VOCs were detected in both soil samples. No compounds exceeded the generic IDWP, GCCP, IDC, or CSAT values for SVOCs.

Polychlorinated Biphenyls (PCBs)

A summary of the analytical results for the PCBs is presented in Table 4-82. PCBs were not detected in either soil sample.

Oil Characterization

Results of the oil characterization scans for the soil samples indicated fingerprints closest to those of motor oil, but were inconclusive.

4.5.9.2 Well Installation Program

The analytical characterization of the oil sheens was performed using the first round of groundwater samples collected from the temporary and permanent monitoring well locations. The groundwater samples were analyzed for TCL VOCs; TCL SVOCs; and TCL PCBs. The groundwater analytical results are summarized in Tables 4-114 through 4-116 for the parameters listed above. At one location (MW-141WT), groundwater was analyzed for Appendix IX

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compounds at the request of MDEQ. The groundwater results for Appendix IX compounds are also summarized in Tables 4-114 through 4-116.

Volatile Organic Compounds (Figures 4-2, 4-3, and 4-4)

The VOC results (Table 4-114) indicate that relatively low concentrations of select VOCs are present in groundwater samples from four monitoring wells: MW-103WT, MW-140WT, MW-145, and MW-146. No compounds exceeded the generic RDW/IDW, GCC, FESL, or WSSL values for VOCs.

Semivolatile Organic Compounds (Figures 4-2, 4-5, and 4-6)

SVOC results are summarized in Table 4-115. Select SVOCs were detected in fourteen of the wells included in the Center Street Investigation. Compounds exceeding the generic RDW/IDW values for SVOCs are summarized below.

MONITORING WELLS – CENTER STREET OIL SHEEN INVESTIGATION AREA					
PCBs	**Number of Times**			**Concentration Range (ug/L)**	**Generic IDW Criteria (ug/L)**
	Analyzed	**Detected**	**Exceeded**		
benzo(a)anthracene	37	1	1	ND - 5.3 J	5.0
benzo(b)fluoranthene	37	1	1	ND - 5.9 J	5.0
bis(2-ethylhexyl)phthalate	37	15	4	ND - 19	6.0
chrysene	37	1	1	ND - 7.0 J	5.0

Notes:
J = Estimated concentration.
ND = Not detected.
Refer to Center Street Analytical Data Tables for MDEQ criteria qualifiers.

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The generic GCC values for benzo(a)anthracene (5.0 ug/L), benzo(b)fluoranthene (5.0 ug/L), and chrysene (5.0 ug/L) were exceeded at TW-203WT; however, these PAHs were not detected at nearby permanent monitoring wells. These compounds tend to adsorb to particulate matter, and may be related to sample turbidity. No filtered SVOC samples were available for comparison. No generic FESL or WSSL values were exceeded in these samples.

Polychlorinated Biphenyls (PCBs) (Figures 4-2 and 4-7)

Table 4-116 summarizes the results of groundwater analyses for PCBs. No PCBs were detected in unfiltered or filtered groundwater samples collected from monitoring wells included in the Center Street Investigation.

Discussion

There currently are, and have been, no known GM operations in the area of the Center Street Oil Sheen Investigation that would account for the oil sheens observed at the soil boring and monitoring well locations.

Based on the RI and historical data, the oil sheens present in the Center Street area are likely associated with the former Queen Street dump, and the oil sheens have probably been present in the Center Street area since prior to 1969. The occurrence of the oil sheens correlate with the horizontal and vertical extent of the former Queen Street dump, and the presence of oil sheens diminishes to the north, south and west outside the limits of the former dump area. At all locations where an oil sheen was observed at monitoring wells, temporary wells, or soil boring locations, fill materials were determined to be in direct contact with the shallow groundwater. The extent of the oil sheens east of the site has not been determined.

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The effect of subsurface utilities on groundwater flow and the migration of oil sheens has been reviewed and determined not to be a factor in the distribution of the oil sheens along Center Street. This is based on the following information:

- The depths of the underground utilities along Center Street range from approximately 4 to 8 feet bgs. The average depth to groundwater in the Center Street area during the RI typically was approximately from 13 feet bgs, which is well below the depths of the utility trenches in this area.

- The existing distribution of oil sheens in the Center Street area does not correlate with the location of existing underground utilities, or the known locations of abandoned utility lines in this area.

The local direction of shallow groundwater movement in the Center Street area is generally to the southeast, which does not allow for a correlation between the observed distribution of oil sheens and a potential source area located in the vicinity of the SMI plant. The nearest occurrence of oil sheens or separate-phase product at the site is approximately 2,000 feet southeast at the SMI plant building LNAPL Investigation Area. The distribution of the oil sheens associated with the LNAPL Assessment and Remediation Area have been delineated, and do not extend into the Center Street area.

4.5.10 LNAPL Assessment and Remediation Area

As discussed previously in Section 2.2.9, the LNAPL Assessment and Remediation Area has gone through several phases of investigation. The results of the investigations were presented to the MDEQ in the *LNAPL Assessment and Recovery Remedial Investigation Interim Report* (BBL, November 1995) and the *LNAPL Assessment and Recovery Report* (BBL, January 1998a), and are summarized below.

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4.5.10.1 LNAPL Analytical Results

LNAPL samples collected at seven monitoring wells (MW-147WT, MW-148WT, MW-157WT, MW-158WT, MW-160WT, MW-172WT, MW-178WT), one recovery well (RW-1), the 30-inch sewer line, and the 42-inch sewer line, were submitted to Quanterra/STL Laboratories to be analyzed for TCL VOCs, TCL SVOCs, and TCL PCBs. Seven samples (MW-147WT, MW-148WT, MW-157WT, MW-158WT, RW-1, the abandoned 30-inch sewer line, and the 42-inch sewer line) were also analyzed for total petroleum hydrocarbons (TPH by USEPA Method 8015A), following the methods in the site QAPP (BBL, May 1996a). Select LNAPL samples were also analyzed for physical parameters: Specific Gravity (ASTM Method D2196-86), Interfacial Tension (ASTM Method D2285), and Viscosity (Method SM18). The LNAPL Assessment and Remediation Area analytical data are presented in Tables 4-117 through 4-128.

Volatile Organic Compounds

Select VOCs were detected in the LNAPL samples (Table 4-118). The maximum concentrations of BTEX compounds in LNAPL were: benzene (2.3 ppm), ethylbenzene (4.8 ppm), toluene (5.2 ppm), and total xylenes (140 ppm). The maximum concentrations of chlorinated compounds in LNAPL were: chloromethane (0.5 ppm), 1,2-dichlorobenzene (0.6 ppm), total 1,2-dichloroethene (65 ppm), methylene chloride (0.7 ppm), trichloroethene (51 ppm), and tetrachloroethene (0.27 ppm). Other VOCs detected in LNAPL samples were: acetone (7.9 ppm), 2-butanone (0.9 ppm), and styrene (2.1 ppm).

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6.2.1 Site Perimeter

Center Street Oil Sheen

The extent of oil sheens in the vicinity of Center Street was investigated through the completion of soil borings and monitoring wells. The oil sheen area was found to correlate with the waste associated with the Former Queen Street Dump, and not with any known GM source. The area of the sheens extends to the northeast past the GM SMI site perimeter. VOC and SVOC compounds were detected in soil and groundwater within the area of oil sheen investigation; PCBs were not detected.

Saginaw River Boundary

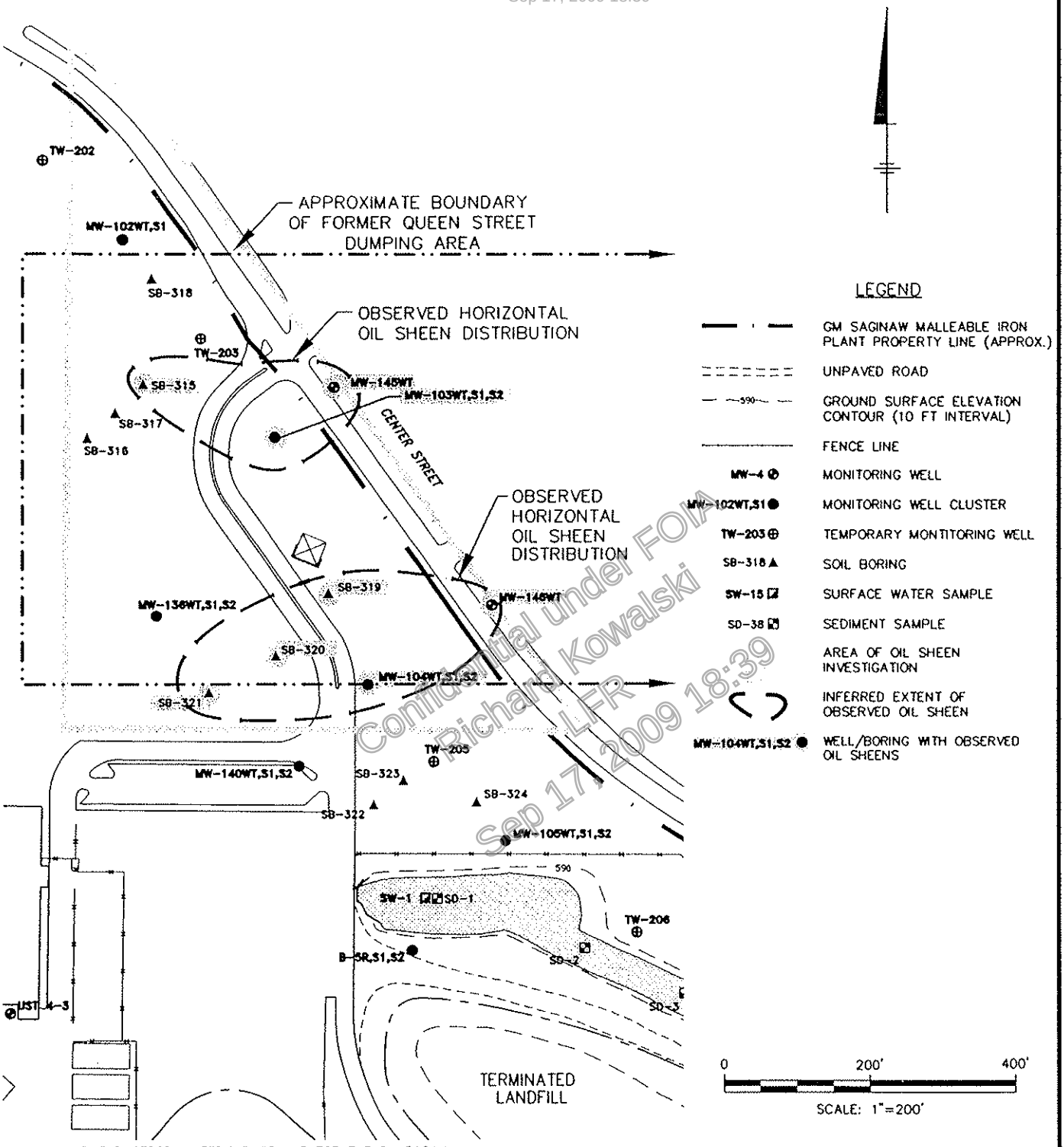
Xylene was detected at an estimated concentration of 56 ug/L, above the generic GSI criteria of 35 ug/L at one Saginaw River perimeter well (MW-6CAUG) on one of three sampling dates. Phenol was detected at a concentration of 6,200 ug/L (above the generic GSI criteria of 210 ug/L), during one of two sampling events at monitoring well MW-111S3, screened within the lower sand unit, and located east of the Secondary Settling Pond. Bis(2-ethylhexyl)phthalate was detected at a concentration of 54 ug/L (above the generic GSI criteria of 32 ug/L) at monitoring well MW-111WT in June 1995. During the second and third site-wide groundwater sampling events in June 1996 and in May 2000, bis(2-ethylhexyl)phthalate was not detected above GSI criteria at any river perimeter monitoring well. The dioxin/furan TEF obtained for an unfiltered groundwater sample collected at river perimeter monitoring well B-7R (0.000001008 ug/L) was below the generic GSI criteria of 0.00001 ug/L. Dioxins/furans were not detected in a second sample obtained from monitoring well B-7R.

The generic GSI criteria for PCBs is 0.2 ug/L, equal to or less than the target detection limits (TDLs), which range from 0.2 to 0.4 ug/L for various PCB Aroclors. Therefore, any PCB detection above the detection limit along the Saginaw River is above GSI criteria. The generic GSI criteria for PCBs was exceeded for groundwater at six water table monitoring wells and at one deeper monitoring well on one or more dates. Groundwater samples collected along the river were analyzed for both total (unfiltered) and dissolved (filtered) PCBs. At the seven permanent monitoring well locations, PCBs were detected in the unfiltered samples only, indicating that PCBs were adsorbed to particulates that are larger in size than the filter size of 0.45 microns. The impact of particulates on unfiltered groundwater samples is further demonstrated by the analytical data collected from the temporary monitoring wells. At these locations, PCB concentrations were significantly higher than those detected in samples collected from nearby permanent monitoring wells (generally by orders of magnitude). These data demonstrate that the higher particulate content of groundwater collected from the temporary wells (e.g., The temporary wells were installed for screening purposes, and as such they were not developed as thoroughly as the permanent wells) resulted in higher detections of the particulate-sorbed PCBs. Similarly, PCBs were initially detected in unfiltered groundwater samples from permanent monitoring wells, which were installed in soils containing low concentrations of PCBs. However, the PCB concentrations consistently declined through time. The groundwater samples collected from the monitoring wells along the Saginaw River in May 2000 were non-detect for PCBs (filtered and unfiltered samples). These samples were collected using a modified sampling procedure as described in the QAPP addendum (Attachment L-A), which incorporates a peristaltic pump to allow lower purging and sampling rates, which are closer to the natural groundwater flow rates in the soil. This method minimizes sample turbidity and the introduction of particulates and associated adsorbed compounds that are not mobile under in-situ conditions. The absence of detectable levels of PCBs in these samples strongly supports GM's position that the PCBs previously detected in monitoring wells located along the Saginaw River are the result of particulates being introduced into the samples as a result of the drilling and sampling methods used to collect the samples.

Detections of inorganic constituents at concentrations above the corresponding generic GSI criteria were noted at one or more locations for arsenic (MW-149WT, one sampling event), copper (MW-108S4, one sampling event), , manganese (MW-111WT, two sampling events; MW-149WT, one sampling event), and thallium (MW-149WT, one sampling event; MW-108WT, one sampling event; MW-112WT, one sampling event; X-4AR, one sampling event).

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NOTES:
1. THIS PHOTOGRAMMETRIC BASE MAP FOR THE GM SAGINAW MALLEABLE IRON PLANT AND DELPHI SAGINAW STEERING SYSTEMS PLANT 2 PROPERTIES WAS PREPARED BY LOCKWOOD MAPPING, INC. OF ROCHESTER, NEW YORK. AERIAL PHOTOGRAPHY WAS CONDUCTED ON 11/11/94. ORIGINAL LOCKWOOD MAP WAS AT A SCALE OF 1" = 100' AND WAS INTERPRETED FOR TWO-FOOT CONTOURS.
2. SAMPLING LOCATIONS SURVEYED BY ATWELL-HICKS, INC. UTICA, MICHIGAN, FILE NO. M1014SU2, FILE DATE 3/22/96.
3. VERTICAL DATUM REFERENCED TO NGVD OF 1929, HORIZONTAL DATUM REFERENCED TO MICHIGAN SPC-NAD 1983.
4. TW-204 NOT COMPLETED DUE TO UNDERGROUND UTILITIES.
5. APPROXIMATE BOUNDARY OF FORMER QUEEN STREET DUMPING AREA BASED ON THE INTERPRETATION OF THE 1954 AERIAL PHOTOGRAPH, AS PRESENTED IN THE CENTER STREET OIL SHEEN SUPPLEMENTAL INVESTIGATION REPORT (BBL, APRIL 1997).

276080090/SM-R1/27605821.DWG 11/10/00 SYR-54-GMS RCA P: STD-PCP/AP.PCP

SAGINAW MALLEABLE IRON PLANT PROPERTY,
GREEN POINT LANDFILL,
AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

REMEDIAL INVESTIGATION

CENTER STREET AREA MONITORING WELL AND SOIL BORING LOCATIONS AND DISTRIBUTION OF OBSERVED OIL SHEENS

BBL BLASLAND, BOUCK & LEE, INC. engineers & scientists

FIGURE 2-11

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MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

AFFIDAVIT TO SUPPORT UNREMEDIATED RELEASE(S) IN A REMEDIAL ACTION PLAN

(Under the authority of Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 Act 451, as amended), and the Part 201 Administrative Rules promulgated thereunder)

STATE OF Michigan

COUNTY OF Saginaw

The purpose of this Affidavit is to set forth certain information and documentation to enable the Michigan Department of Environmental Quality (hereinafter, the "MDEQ") to make the determinations pursuant to R 299.5534 (hereinafter, "Rule 534") of the Part 201 Administrative Rules (hereinafter, the "Part 201 Rules") promulgated under Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (hereinafter, the "NREPA"). All terms found in this document which are defined in Part 3, Definitions, and Part 201 of the NREPA; and the Part 201 Rules, shall have the same meaning as in the statute and the Part 201 Rules.

The undersigned Affiant, being first duly sworn, deposes and says as follows:

1. THIS AFFIDAVIT is executed by the undersigned, William McFarland, whose title is, Director of Remediation, on behalf of the General Motors Corporation, and President, on behalf of the Remediation and Liability Management Company (hereinafter, "the Affiant") located at Engineering Center - West, Mail Code 480-111-W60, 30200 Mound Rd, Warren, MI 48090.

2. This Affidavit accompanies a Remedial Action Plan ("the RAP") prepared on behalf of the Affiant for the following properties: Saginaw Malleable Iron Property, and REALM, Inc. Green Point Landfill and Drum Remediation Area. The legal description is provided in Attachment 1.

3. The properties referred to in Item Number 2 are associated with a "Facility" as defined in Section 20101(1)(o) of the NREPA.

4. The RAP precisely describes the unremediated release at the Facility. "Unremediated release" means a release for which response activity has not been implemented that satisfies the remedial action requirements of Part 201 of the NREPA and the Part 201 Rules.

5. The Affiant is not liable for the unremediated releases associated with the Dow Chemical manufacturing facility located in Midland, Michigan, as identified in Attachment 2.

6. Attached to this Affidavit is information that explains and supports the basis for the conclusion that the Affiant is not liable for the environmental contamination proposed to be omitted from remediation in the RAP.

7. Attached to this Affidavit is documentation that demonstrates divisibility of harm and apportionment of liability as required by Section 20129 of the NREPA.

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8. The Affiant acknowledges and agrees to all of the following:

   a. If the MDEQ approves the RAP referenced in Item Number 4 relying on representations about liability that are set forth in this Affidavit, the ability of the MDEQ to subsequently review the liability of the Affiant is not limited or affected by reliance on the Affidavit or approval of the RAP. Upon review of the Affidavit, supporting materials and other information available to the MDEQ at any time, the MDEQ may determine that Affiant is liable for any or all of the contamination omitted from remediation under the RAP, or that the Affiant has not met the burden of demonstrating divisibility of harm and apportionment of liability under Section 20129 of the NREPA.

   b. If the MDEQ later finds the Affiant to be liable for the Facility or to have failed to establish divisibility of harm and apportionment of liability as required by Section 20129 of the NREPA, the Affiant shall promptly undertake remedial action to address that portion of the Facility not covered by the RAP.

   c. A person who is liable who undertakes a remedial action that he or she knows will not, when complete, comprehensively address all contamination at a facility at the time the remedial action is undertaken, except as provided for in R. 299.5534 for unremediated releases, is subject to fines and penalties as provided for under Part 201 of the NREPA for failure to diligently pursue response activity under Section 20114(1)(g) of the NREPA, as well as other applicable state or federal laws.

   d. Response activity undertaken by a person who is liable that does not comprehensively address all contamination at a facility, except unremediated releases addressed through the procedure set forth in R.299.5534, is considered an interim response and not a remedial action.

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I affirm that the above representations are true and are based upon my personal knowledge and belief after all reasonable inquiry.

I certify that I am legally authorized to execute this Affidavit and to bind the Affiant to the terms and conditions of this Affidavit.

I understand that intentionally submitting false information to the MDEQ is a felony and may result in fines of up to $25,000 for each violation.

I acknowledge that this Affidavit has been provided pursuant to Rule 534 of the Part 201 Rules.

William McFarland, Affiant

William McFarland
Signature of Person Legally Authorized to Bind Affiant

5-28-09
Date

William McFarland
Print or Type Legal Name

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SUBSCRIBED AND SWORN to before me this 28 day of May, 2009 a Notary Public in and for Macomb County, Michigan.

Allicia Najor
Notary Public's Signature

My Commission Expires: April 3, 2015

ALLICIA NAJOR
NOTARY PUBLIC – STATE OF MICHIGAN
COUNTY OF MACOMB
My Commission expires April 3, 2015
Acting in the County of Macomb

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LEGAL DESCRIPTION OF SITE

The Site encompasses approximately 273 acres, and consists of the Saginaw Malleable Iron (SMI) Plant Property and the REALM Green Point Landfill and Drum Remediation Area (DRA) Property, as shown on Figures 1-1 and 1-2 in the Remedial Action Plan. The SMI Plant Property makes up the northern portion of the Site and includes the inactive SMI Plant and support facilities, including two closed Type III Landfills, two stormwater ponds, and an inoperative Water Recycle System. Foundry operations previously conducted at the SMI Plant consisted of activities related to the casting and heat treating of iron. The southern portion of the Site (now owned by REALM, Inc.) includes the closed Green Point Landfill and the DRA, where drums were previously discovered, excavated, and removed.

The Site is located approximately 1,500 feet north of the confluence of the Tittabawassee and Shiawassee Rivers and is located on the western half of Section 35, T12N, R4E, in the city of Saginaw, Saginaw County, Michigan. A legal description of the SMI Plant Property and the REALM Green Point Landfill and Drum Remediation Area Property is provided below.

SMI Plant Property Legal Description (Tax ID: 19 2231 00000)

DESCRIPTION OF A 150.97 ACRE PARCEL OF LAND (KNOWN AS SAGINAW MALLEABLE IRON PLANT PROPERTY)

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Commencing at a found monument at the center-line intersections of Salt Road (66.00 feet wide) and Sylvan Road (60.00 feet wide) being part of Sections 34 & 35, T12N, R4E, City of Saginaw, Saginaw County, Michigan; thence N41°13'20"E 53.66 feet along the center-line of said Salt Road; thence S48°46'40"E 33.00 feet perpendicular to said center-line of said Salt Road for a **PLACE OF BEGINNING**; thence N41°13'20"E 155.86 feet along the Southeasterly Right-of-Way line of said Salt Road; thence S56°24'15"E 100.97 feet; thence S79°30'05"E 162.10 feet; thence N13°24'11"E 160.56 feet; thence along the Southwesterly Right-of-Way line of vacated relocated Florence Street (66.00 feet wide) as recorded thereof in Liber 1269, Page 348 of Saginaw County Records, N76°42'45"W 186.19 feet to the said Southeasterly Right-of-Way line of said Salt Road, said point being S44°49'19"E 33.08 feet from a found monument at the center-line of said Salt Road; thence N41°13'20"E 2.12 feet along the Southeasterly Line of said Salt Road; thence N41°30'33"E 1174.43 feet continuing along said Southeasterly Right-of-Way line of said Salt Road to the Southwesterly Right-of-Way Line of West Center Street (130.00 feet wide) for the following seven (7) courses: [1]S77°59'54"E 348.21 feet; [2]S53°41'09"E 303.68 feet; [3]S35°19'18"E 1142.28 feet; [4]S89°15'47"E 87.93 feet; [5]S46°59'44"E 117.45 feet; [6]S66°53'15"E 55.70 feet; [7]S75°13'36"E 193.96 feet to an intermediate traverse point "A"; said point "A" being N75°13'36"W 81.73 feet from the United States Harbor Line as recorded thereof in Liber 2194 Page 1169 of Saginaw County Records; thence S75°13'36"E 25 feet, plus or minus, to the Westerly Edge of Water of the Saginaw River; thence the following three (3) courses along an intermediate traverse line from aforementioned Intermediate Traverse point "A":[1] S03°21'51"E 548.91 feet, [2]S07°27'01"E 907.34 feet,[3] S10°55'18"E 798.66 feet to an Intermediate Traverse Point "B"; said point "B" being

N89°42'41"W 121.04 feet from said United States Harbor Line; thence N89°40'46"W 720.87 feet to the East line of Consumers Power Company Right-of-Way (72.00 feet wide) as recorded thereof in Liber 1106 Pages, 426 & 427; thence N89°34'47"W 72.06 feet along the North line of said Right-of-Way; thence N01°57'47"W 100.28; thence N89°36'59"W 1421.88 feet; thence

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N00°07'58"E 1033.08 feet; thence N25°14'05"W 365.55 feet; thence N24°37'18"W 89.80 feet; thence N00°17'27"W 80.90 feet; thence N89°46'34"W 8.85 feet; thence N00°13'22"E 159.80 feet; thence N48°10'04"W 158.71 feet; thence N44°27'28"W 229.01 feet; thence N26°08'40"W 69.66 feet; thence N28°53'40"W 207.15 feet; thence N38°36'14"W 183.21 feet to the PLACE OF BEGINNING. Containing 150.97 acres of land, more or less, subject to easements, conditions, restrictions and exceptions of record, if any.

REALM Green Point Landfill and Drum Remediation Area Property Legal Description (Tax ID: 19 2249 00000)

DESCRIPTION OF A 122.23 ACRE PARCEL OF LAND
(REALM, INC. PROPERTY)

Commencing at the Northwest Corner of Section 2, being part of Sections 34 & 35, T12N, R4E, and part of Sections 2 & 3, T11N, R4E, City of Saginaw, Saginaw County, Michigan; thence N89°38'51"W 799.20 feet along the North line of said Section 2 for a **PLACE OF BEGINNING**; thence N00°07'03"W 812.05 feet; thence S89°39'56"E 453.71 feet; thence N00°08'29"E 499.70 feet; thence S89°40'47"E 349.80 feet; thence S00°10'11"W 524.17 feet; thence S89°35'00"E 300.33 feet; thence N00°07'58"E 98.85 feet; thence S89°36'59"E 1421.88 feet; thence S01°57'47"E 100.28 feet to the West line of Consumers Power Company Right-of-Way (72.00 feet wide) as recorded thereof in Liber 1106 Pages 426 & 427; thence S01°57'47"E 1942.95 feet along said Consumers Power Company Right-of-Way; thence N89°53'29"W 1754.30 feet to a point being S01°59'22"E 1164.37 feet from the Northeast corner of said Section 3; thence N89°53'15"W 836.68 feet; thence N00°08'37"W 1166.95 feet to the Place of Beginning. Containing 122.23 acres of land, more or less, subject to easements, conditions, restrictions and exceptions of record, if any.

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In April 2000, elevated concentrations of dioxin and furan compounds were identified in soil samples collected in a farm field located east of the REALM Green Point Landfill property. Through extensive sampling programs conducted by the MDEQ and the DOW Chemical Corporation (DOW), the presence of dioxin and furan compounds was traced from the DOW plant located in Midland Michigan, throughout the flood plains and river sediments of the Tittabawassee and Saginaw Rivers. A sediment removal action was completed in the Saginaw River adjacent to the GM SMI and REALM Green Point Landfill properties. Additional information regarding the distribution of dioxin and furan compounds is provided in the attached report, *Phase II Tittabawassee/Saginaw River Dioxin Flood Plain Sampling Study*. The presence of these compounds has not been extensively studied at the Site; however, based on the presence of the Site within the flood plain of the Tittabawassee and Saginaw Rivers, these compounds are likely present.

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Final Report
Phase II Tittabawassee/Saginaw River Dioxin Flood Plain Sampling Study

I. Executive Summary

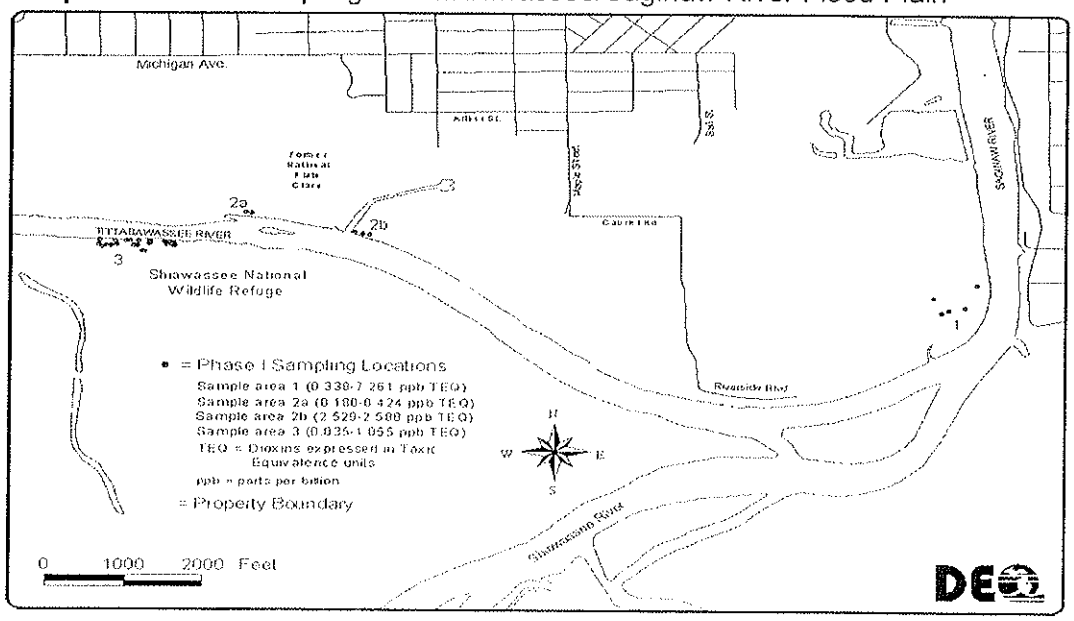
Soil samples collected during the development of a wetland mitigation project identified elevated levels of dioxin and furan compounds (hereinafter collectively referred to as dioxin) in a farm field located near the confluence of the Tittabawassee and Saginaw Rivers. The samples, collected during April 2000, identified concentrations of dioxin as high as 2,200 parts per trillion (ppt) toxic equivalents (TEQ). The dioxin concentration was nearly 25 times the residential direct contact criterion (RDCC) of 90 ppt TEQ established under Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Part 201). The Part 201 RDCC of 90 ppt is the concentration of dioxin in soil determined to be safe for direct contact from residential exposure. Concern over the public and environmental health implications of these sample results prompted the Department of Environmental Quality (DEQ), Remediation and Redevelopment Division (RRD), to develop and implement a phased soil sampling and assessment program in the Tittabawassee River flood plain to determine the source and extent of the contamination.

Summary - Phase I

The Phase I portion of the soil sampling program was implemented during the period December 2000 through July 2001. The RRD collected 34 soil samples from five locations within a two-mile stretch of the Tittabawassee River flood plain between Center Road in Saginaw Township, Saginaw County, and the Saginaw River confluence. The Phase I sample locations are identified in Map 1. Soil samples were collected at depths ranging from the ground surface to 15 inches below ground level (bgl). Analytical results identified concentrations ranging from 35 to 7,300 ppt TEQ. Only 7 of the 34 samples contained dioxin TEQ concentrations less than the Part 201 RDCC (90 ppt TEQ). A summary of Phase I TEQ sample results is presented in Table 1. The Phase I individual dioxin congener results are presented in Appendix G.

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Map 1: Phase I Sampling - - Tittabawassee/Saginaw River Flood Plain



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Table 1

Greenpoint-Tittabawassee River Dioxin/Furan Study Area
Phase I Sampling Study

Samples were analyzed by Triangle Laboratory, Durham, NC using US Environmental Protection Agency/USEPA Method 8290. All sample results are reported in pg/g (ppt) TEQ using USEPA Toxic Equivalency Factors (TEF) 1989

General Motors (GM) farm field (GM collected composite surface soil samples from the farm field) April 2000	
E3A	1,500
C1A	2,200

GM farm field (RRD collected discrete surface soil samples from farm field to verify April 2000 results) December 2000	
DX#1	390
DX#2	7,300
DX#3	6,300
DX#4	3,600
DX#5	340

LA Davidson (RRD collected discrete surface soil samples) May 2001	
From the farm field west of the LA Davidson site	
DX1 west	410
DX2 west	180
*From the golf course east of the LA Davidson site	
DX3 east	2,600
DX4 east	2,500

US Fish and Wildlife Service (USFWS) Shiawassee Wildlife Refuge (RRD collected discrete soil samples from wooded area) May 2001			
approximately < 6" bgl (below ground level)		approximately < 12" bgl	
GP1-6	39	GP1-12	58
GP2-6	130	GP2-12	360
GP3-6	59	GP3-12	57
GP4-6	35	GP4-12	160
GP5-6	130	GP5-12	1,100

USFWS Shiawassee Wildlife Refuge (RRD collected discrete soil samples from upland, open area) June 2001					
0 - 3" bgl		3 - 6" bgl		12 - 15" bgl	
SS1-3	390	SS1-6	590	SS1-12	58
SS2-3	770	SS2-6	420	SS2-12	280
SS5-3	390	SS5-6	540	SS5-12	250
SS6-3	590	SS6-6	550	SS6-12	110
SS7-3	490	SS7-6	660	SS7-12	68

DEQ residential direct contact criterion = 90 ppt (expressed as an equivalent concentration of 2,3,7,8-TCDD (TEQ))

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The Phase I final report was completed during October 2001. The following determinations were presented in the final report:

- Elevated concentrations of dioxin were confirmed within the lower Tittabawassee River flood plain near the river's confluence with the Saginaw River.

- Dioxin concentrations were consistently found above the Part 201 RDCC (90 ppt TEQ), and were identified as high as 80 times the Part 201 RDCC.

- Human use of the flood plain increases upstream of the Phase I sample area. Residential properties are located within the flood plain, the majority located within the Shields area of Thomas Township and Saginaw Township. Public park lands and agricultural operations are also located within the flood plain.

- A Phase II sampling program was recommended to further evaluate the extent of contamination above the Part 201 RDCC occurring within the flood plain upstream of the Phase I sample area.

Summary – Sediment Study

The DEQ collected and analyzed Tittabawassee River sediment samples during spring/ summer 2001, as part of the Baseline Characterization of Saginaw Bay Watershed Sediment Study (DEQ Sediment Study). The objective of the DEQ Sediment Study was to provide baseline concentrations of contaminants in Tittabawassee River sediments both upstream and downstream of the city of Midland (Midland). Dioxins and furans were analyzed as part of this study. Surface sediment samples were collected from the Chippewa River, Pine River, and Tittabawassee River beginning immediately upstream of Midland and continuing downstream to the beginning of the Saginaw River. Sediment cores were collected and analyzed in select areas. Some flood plain soil samples were also collected for analysis. Sample locations and results are presented in Appendix H.

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The DEQ Sediment Study final report was completed and distributed during the summer of 2002. The study results presented in the final report indicate the following:

- Dioxin concentrations from sediment and flood plain soil sample locations upstream of Midland are consistent with the average dioxin concentration in soil samples collected statewide from areas where there are no known dioxin release source(s) (hereinafter referred to as statewide background, see Figure 1).

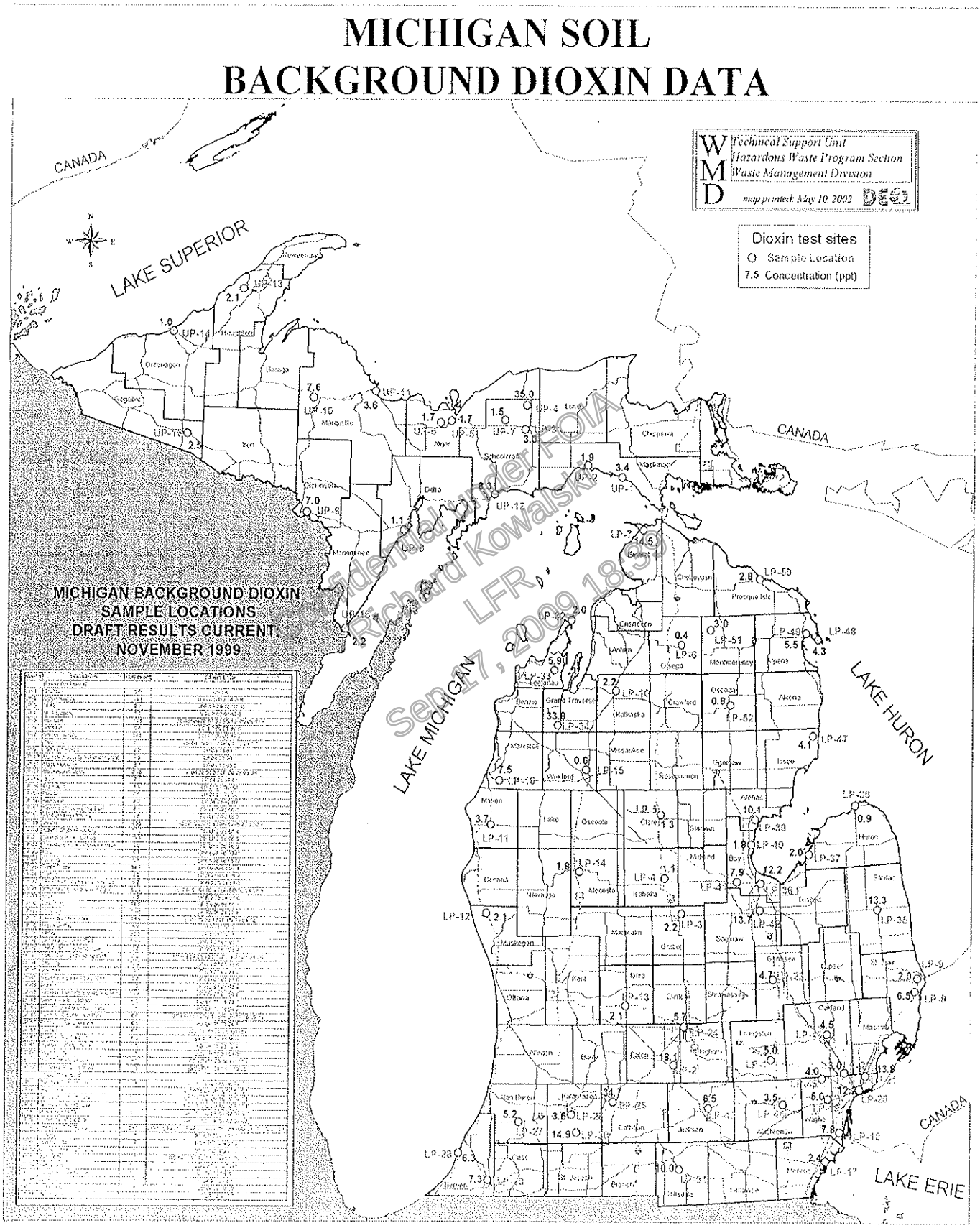
- Dioxin is present at elevated concentrations in sediment and flood plain soil samples collected downstream of Midland. The extent of contamination is pervasive throughout the study area downstream of Midland. Sediment contamination ranged up to 2100 ppt TEQ and was present to the downstream limit of the study area, approximately 20 miles downstream of Midland. All flood plain soil samples collected downstream of Midland exceeded the Part 201 RDCC with concentrations ranging between 300 and 1500 ppt TEQ.

- The variability of dioxin concentrations in river sediment samples is believed to be a result of the variability of river water flow and site-specific sediment deposition characteristics.

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Figure 1: Michigan Soil Background Dioxin Data



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Summary – Phase II

A Phase II flood plain soil sampling program (Phase II) was developed based on the results of the Phase I Report and the DEQ Sediment Study. Flood plain soil samples were collected from the Chippewa, Pine, and Tittabawassee Rivers upstream of Midland, and at specific locations along the Tittabawassee River downstream of Midland to the beginning of the Saginaw River. Phase II soil samples were collected and analyzed during the period from May through December 2002 from the locations shown (see Figure 2). Initial observations of the Phase II sample results identified the following:

- The majority of flood plain soil sample dioxin concentrations downstream of Midland exceed the Part 201 RDCC, indicating that dioxin contamination of flood plain soil downstream of Midland is pervasive.

- Flood plain soil samples collected upstream of Midland contain dioxin concentrations consistent with statewide background concentrations.

- Dioxin concentrations from sample locations located downstream of Midland, but outside the estimated 100-year flood plain, are consistent with statewide background concentrations.

- The deepest initial Phase II soil sample (12-15") did not define the vertical extent of dioxin contamination. Soil samples were analyzed from three deep soil borings collected from Freeland Festival Park to improve understanding regarding the vertical extent of dioxin contamination. These additional samples indicate that dioxin contamination above statewide background concentrations exist at the park to a depth of four feet bgl. Additional deep soil sampling is necessary to determine if this vertical distribution of dioxin is consistent throughout the flood plain.

- The concentration of co-planar polychlorinated biphenyl (PCB) compounds represents an insignificant contribution to the total dioxin-like toxicity at all Phase II sample locations.

- Eggs from chickens that free range on flood plain soil exhibit elevated concentrations of dioxin. It is possible that food products from other animals raised on the flood plain could be affected.

- Dioxin concentrations in flood plain drinking water well samples were not determined to exceed applicable regulatory criteria.

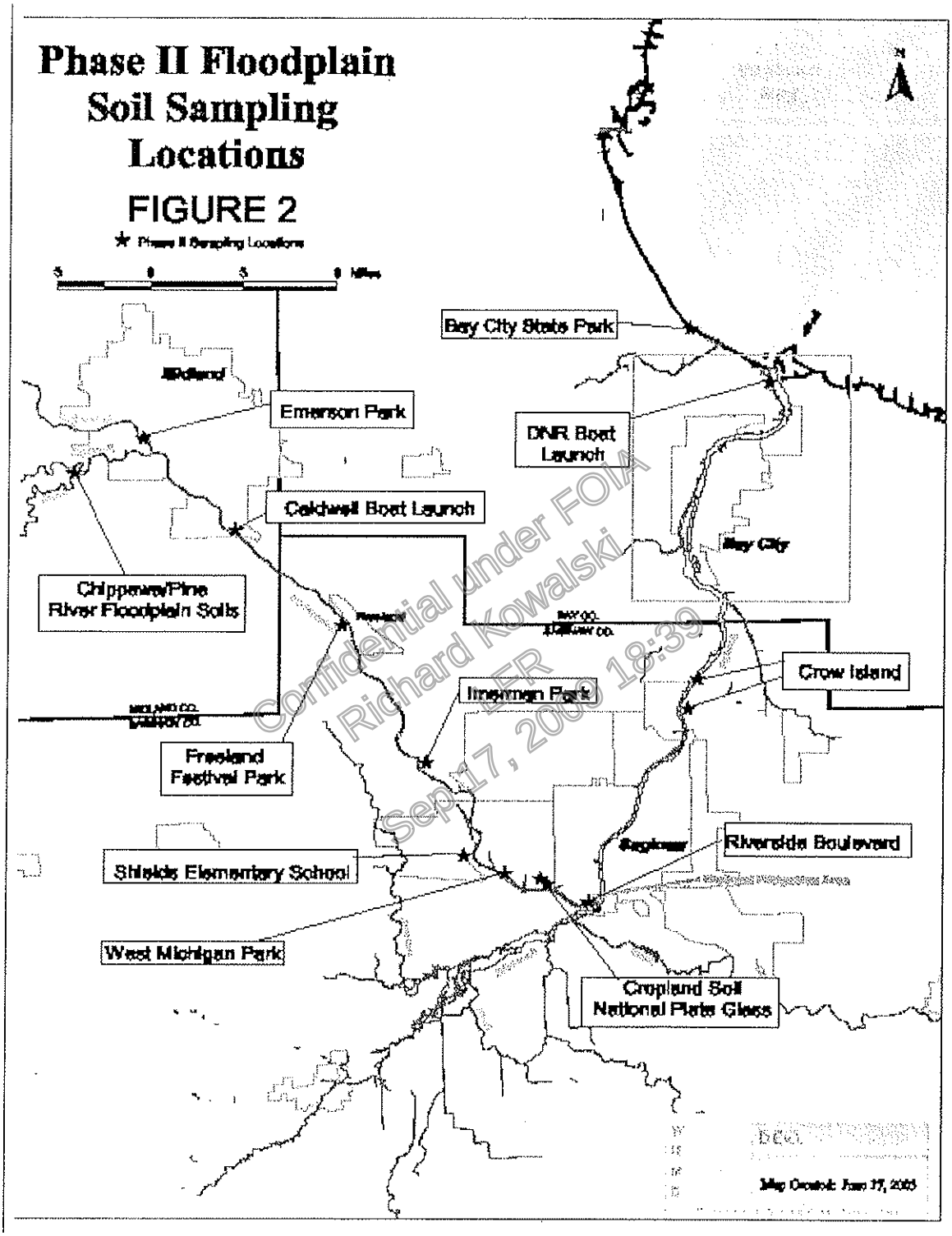
- Saginaw River and Saginaw Bay navigation channel sediment samples collected in 1999 by the U.S. Army Corps of Engineers (USACE) indicate that dioxin contaminated sediment from the Tittabawassee River has migrated into the Saginaw River and the inner portions of the Saginaw Bay. Initial soil samples collected by the RRD from the Saginaw River and Saginaw Bay shoreline areas appear to confirm these results, though additional sampling of these areas is needed.

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Figure 2: Phase II Soil Sampling Locations



The remainder of this report provides a detailed presentation of Phase II sampling objectives, methodology, sample results, congener profile characterization, conclusions, and recommendations.

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MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

AFFIDAVIT TO SUPPORT UNREMEDIATED RELEASE(S) IN A REMEDIAL ACTION PLAN

(Under the authority of Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 Act 451, as amended), and the Part 201 Administrative Rules promulgated thereunder)

STATE OF Michigan

COUNTY OF Saginaw

The purpose of this Affidavit is to set forth certain information and documentation to enable the Michigan Department of Environmental Quality (hereinafter, the "MDEQ") to make the determinations pursuant to R 299.5534 (hereinafter, "Rule 534") of the Part 201 Administrative Rules (hereinafter, the "Part 201 Rules") promulgated under Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (hereinafter, the "NREPA"). All terms found in this document which are defined in Part 3, Definitions, and Part 201 of the NREPA; and the Part 201 Rules, shall have the same meaning as in the statute and the Part 201 Rules.

The undersigned Affiant, being first duly sworn, deposes and says as follows:

1. THIS AFFIDAVIT is executed by the undersigned, William McFarland, whose title is, Director of Remediation, on behalf of the General Motors Corporation, and President, on behalf of the Remediation and Liability Management Company (hereinafter, "the Affiant") located at Engineering Center - West, Mail Code 480-111-W60, 30200 Mound Rd, Warren, MI 48090.

2. This Affidavit accompanies a Remedial Action Plan ("the RAP") prepared on behalf of the Affiant for the following properties: Saginaw Malleable Iron Property, and REALM, Inc. Green Point Landfill and Drum Remediation Area. The legal description is provided in Attachment 1.

3. The properties referred to in Item Number 2 are associated with a "Facility" as defined in Section 20101(1)(o) of the NREPA.

4. The RAP precisely describes the unremediated release at the Facility. "Unremediated release" means a release for which response activity has not been implemented that satisfies the remedial action requirements of Part 201 of the NREPA and the Part 201 Rules.

5. The Affiant is not liable for the unremediated releases associated with the former Delphi Saginaw Steering Gear Plant 2, as identified in the RAP and in Attachment 2.

6. Attached to this Affidavit is information that explains and supports the basis for the conclusion that the Affiant is not liable for the environmental contamination proposed to be omitted from remediation in the RAP.

7. Attached to this Affidavit is documentation that demonstrates divisibility of harm and apportionment of liability as required by Section 20129 of the NREPA.

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8. The Affiant acknowledges and agrees to all of the following:

   a. If the MDEQ approves the RAP referenced in Item Number 4 relying on representations about liability that are set forth in this Affidavit, the ability of the MDEQ to subsequently review the liability of the Affiant is not limited or affected by reliance on the Affidavit or approval of the RAP. Upon review of the Affidavit, supporting materials and other information available to the MDEQ at any time, the MDEQ may determine that Affiant is liable for any or all of the contamination omitted from remediation under the RAP, or that the Affiant has not met the burden of demonstrating divisibility of harm and apportionment of liability under Section 20129 of the NREPA.

   b. If the MDEQ later finds the Affiant to be liable for the Facility or to have failed to establish divisibility of harm and apportionment of liability as required by Section 20129 of the NREPA, the Affiant shall promptly undertake remedial action to address that portion of the Facility not covered by the RAP.

   c. A person who is liable who undertakes a remedial action that he or she knows will not, when complete, comprehensively address all contamination at a facility at the time the remedial action is undertaken, except as provided for in R. 299.5534 for unremediated releases, is subject to fines and penalties as provided for under Part 201 of the NREPA for failure to diligently pursue response activity under Section 20114(1)(g) of the NREPA, as well as other applicable state or federal laws.

   d. Response activity undertaken by a person who is liable that does not comprehensively address all contamination at a facility, except unremediated releases addressed through the procedure set forth in R.299.5534, is considered an interim response and not a remedial action.

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I affirm that the above representations are true and are based upon my personal knowledge and belief after all reasonable inquiry.

I certify that I am legally authorized to execute this Affidavit and to bind the Affiant to the terms and conditions of this Affidavit.

I understand that intentionally submitting false information to the MDEQ is a felony and may result in fines of up to $25,000 for each violation.

I acknowledge that this Affidavit has been provided pursuant to Rule 534 of the Part 201 Rules.

William McFarland, Affiant

William McFarland
Signature of Person Legally Authorized to Bind Affiant

5-28-09
Date

William McFarland
Print or Type Legal Name

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SUBSCRIBED AND SWORN to before me this 28 day of May, 2009, a Notary Public in and for Macomb County, Michigan.

Alicia Najor
Notary Public's Signature

My Commission Expires: April 3, 2015

ALLICIA NAJOR
NOTARY PUBLIC – STATE OF MICHIGAN
COUNTY OF MACOMB
My Commission expires April 3, 2015
Acting in the County of Macomb

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LEGAL DESCRIPTION OF SITE

The Site encompasses approximately 273 acres, and consists of the Saginaw Malleable Iron (SMI) Plant Property and the REALM Green Point Landfill and Drum Remediation Area (DRA) Property, as shown on Figures 1-1 and 1-2 in the Remedial Action Plan. The SMI Plant Property makes up the northern portion of the Site and includes the inactive SMI Plant and support facilities, including two closed Type III Landfills, two stormwater ponds, and an inoperative Water Recycle System. Foundry operations previously conducted at the SMI Plant consisted of activities related to the casting and heat treating of iron. The southern portion of the Site (now owned by REALM, Inc.) includes the closed Green Point Landfill and the DRA, where drums were previously discovered, excavated, and removed.

The Site is located approximately 1,500 feet north of the confluence of the Tittabawassee and Shiawassee Rivers and is located on the western half of Section 35, T12N, R4E, in the city of Saginaw, Saginaw County, Michigan. A legal description of the SMI Plant Property and the REALM Green Point Landfill and Drum Remediation Area Property is provided below.

SMI Plant Property Legal Description (Tax ID: 19 2231 00000)

DESCRIPTION OF A 150.97 ACRE PARCEL OF LAND (KNOWN AS SAGINAW MALLEABLE IRON PLANT PROPERTY)

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Commencing at a found monument at the center-line intersections of Salt Road (66.00 feet wide) and Sylvan Road (60.00 feet wide) being part of Sections 34 & 35, T12N, R4E, City of Saginaw, Saginaw County, Michigan; thence N41°13'20"E 53.66 feet along the center-line of said Salt Road; thence S48°46'40"E 33.00 feet perpendicular to said center-line of said Salt Road for a **PLACE OF BEGINNING**; thence N41°13'20"E 155.86 feet along the Southeasterly Right-of-Way line of said Salt Road; thence S56°24'15"E 100.97 feet; thence S79°30'05"E 162.10 feet; thence N13°24'11"E 160.56 feet; thence along the Southwesterly Right-of-Way line of vacated relocated Florence Street (66.00 feet wide) as recorded thereof in Liber 1269, Page 348 of Saginaw County Records, N76°42'45"W 186.19 feet to the said Southeasterly Right-of-Way line of said Salt Road, said point being S44°49'19"E 33.08 feet from a found monument at the center-line of said Salt Road; thence N41°13'20"E 2.12 feet along the Southeasterly Line of said Salt Road; thence N41°30'33"E 1174.43 feet continuing along said Southeasterly Right-of-Way line of said Salt Road to the Southwesterly Right-of-Way Line of West Center Street (130.00 feet wide) for the following seven (7) courses: [1]S77°59'54"E 348.21 feet; [2]S53°41'09"E 303.68 feet; [3]S35°19'18"E 1142.28 feet; [4]S89°15'47"E 87.93 feet; [5]S46°59'44"E 117.45 feet; [6]S66°53'15"E 55.70 feet; [7]S75°13'36"E 193.96 feet to an intermediate traverse point "A"; said point "A" being N75°13'36"W 81.73 feet from the United States Harbor Line as recorded thereof in Liber 2194 Page 1169 of Saginaw County Records; thence S75°13'36"E 25 feet, plus or minus, to the Westerly Edge of Water of the Saginaw River; thence the following three (3) courses along an intermediate traverse line from aforementioned Intermediate Traverse point "A":[1] S03°21'51"E 548.91 feet, [2]S07°27'01"E 907.34 feet,[3] S10°55'18"E 798.66 feet to an Intermediate Traverse Point "B"; said point "B" being N89°42'41"W 121.04 feet from said United States Harbor Line; thence N89°40'46"W 720.87 feet to the East line of Consumers Power Company Right-of-Way (72.00 feet wide) as recorded thereof in Liber 1106 Pages, 426 & 427; thence N89°34'47"W 72.06 feet along the North line of said Right-of-Way; thence N01°57'47"W 100.28; thence N89°36'59"W 1421.88 feet; thence

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N00°07'58"E 1033.08 feet; thence N25°14'05"W 365.55 feet; thence N24°37'18"W 89.80 feet; thence N00°17'27"W 80.90 feet; thence N89°46'34"W 8.85 feet; thence N00°13'22"E 159.80 feet; thence N48°10'04"W 158.71 feet; thence N44°27'28"W 229.01 feet; thence N26°08'40"W 69.66 feet; thence N28°53'40"W 207.15 feet; thence N38°36'14"W 183.21 feet to the PLACE OF BEGINNING. Containing 150.97 acres of land, more or less, subject to easements, conditions, restrictions and exceptions of record, if any.

REALM Green Point Landfill and Drum Remediation Area Property Legal Description (Tax ID: 19 2249 00000)

DESCRIPTION OF A 122.23 ACRE PARCEL OF LAND
(REALM, INC. PROPERTY)

Commencing at the Northwest Corner of Section 2, being part of Sections 34 & 35, T12N, R4E, and part of Sections 2 & 3, T11N, R4E, City of Saginaw, Saginaw County, Michigan; thence N89°38'51"W 799.20 feet along the North line of said Section 2 for a **PLACE OF BEGINNING**; thence N00°07'03"W 812.05 feet; thence S89°39'56"E 453.71 feet; thence N00°08'29"E 499.70 feet; thence S89°40'47"E 349.80 feet; thence S00°10'11"W 524.17 feet; thence S89°35'00"E 300.33 feet; thence N00°07'58"E 98.85 feet; thence S89°36'59"E 1421.88 feet; thence S01°57'47"E 100.28 feet to the West line of Consumers Power Company Right-of-Way (72.00 feet wide) as recorded thereof in Liber 1106 Pages, 426 & 427; thence S01°57'47"E 1942.95 feet along said Consumers Power Company Right-of-Way; thence N89°53'29"W 1754.30 feet to a point being S01°59'22"E 1164.37 feet from the Northeast corner of said Section 3; thence N89°53'15"W 836.68 feet; thence N00°08'37"W 1166.95 feet to the Place of Beginning. Containing 122.23 acres of land, more or less, subject to easements, conditions, restrictions and exceptions of record, if any.

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ATTACHMENT 2

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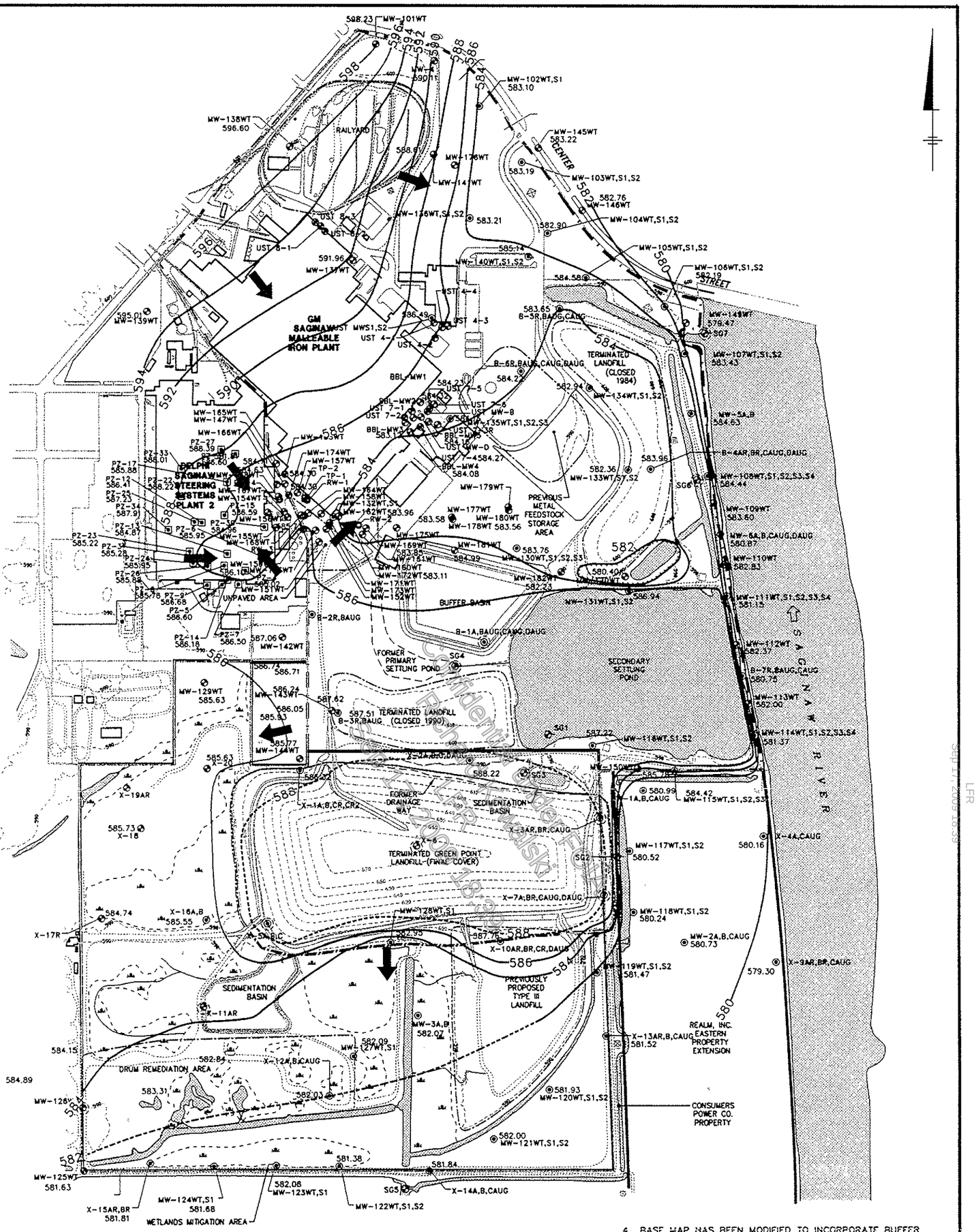
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There are two areas of the facility that have been impacted by the upgradient former Delphi Plant 2 property. The first is the light non-aqueous phase liquid (LNAPL) recovery area located south of the main plant building on the Saginaw Malleable Iron Plant property. A fingerprinting study completed in the area (copy attached) shows that LNAPL has migrated from the Delphi property in the past. An LNAPL plume in this area has been addressed in the Remedial Action Plan; however, LNAPL still exists on the adjacent upgradient Delphi property. It is expected that this LNAPL could, and is likely to migrate onto the GM property due to natural groundwater gradients or due to the gradient induced by the existing recovery system. In addition, an abandoned 30-inch sewer line that extends from the Delphi property onto the SMI property was cut near the location of recovery well RW-1. This pipe contained LNAPL, which flowed out of the pipe when it was uncovered. The pipe has been left open to allow LNAPL to drain from the pipe to the recovery system. This pipe provides an ongoing potential migration route for LNAPL from the Delphi property to the SMI property. Future contributions of LNAPL from the adjacent property are identified as *unremediated releases*.

The second area of the facility impacted by the former Delphi Plant 2 was identified during investigation of the adjacent REALM Peninsula Area Property, located north-west of the Green Point Landfill. Volatile organic compounds (VOCs) have migrated in groundwater from the Delphi property, near the manufacturing building, southward onto the REALM Peninsula Area property, and have migrated towards the wetland located in the north-west corner of the Green Point Landfill property. Data for these two site areas follow.

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GM SAGINAW MALLEABLE IRON PLANT
DELPHI SAGINAW STEERING SYSTEMS PLANT 2
TERMINATED LANDFILL (CLOSED 1984)
TERMINATED LANDFILL B-3R,BAUG (CLOSED 1990)
TERMINATED GREEN POINT LANDFILL-(FINAL COVER)
PREVIOUSLY PROPOSED TYPE III LANDFILL
FORMER PRIMARY SETTLING POND
SECONDARY SETTLING POND
BUFFER BASIN
SEDIMENTATION BASIN
FORMER DRAINAGE WAY
DRUM REMEDIATION AREA
WETLANDS MITIGATION AREA
UNPAVED AREA
PREVIOUS METAL FEEDSTOCK STORAGE AREA
RAILYARD
CENTER STREET
REALM, INC. EASTERN PROPERTY EXTENSION
CONSUMERS POWER CO. PROPERTY
SAGINAW RIVER
MW-101WT
MW-102WT,S1
MW-103WT,S1,S2
MW-104WT,S1,S2
MW-105WT,S1,S2
MW-106WT,S1,S2
MW-107WT,S1,S2
MW-108WT,S1,S2,S3,S4
MW-109WT
MW-110WT
MW-111WT,S1,S2,S3,S4
MW-112WT
MW-113WT
MW-114WT,S1,S2,S3,S4
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15AR,BR
16A,B
17R
18
19AR
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MEMORANDUM

BBL®
BLASLAND, BOUCK & LEE, INC.
engineers, scientists, economists

To: Cheryl Hiatt, GM WFG

Date: 1/12/05

From: Helder Costa

cc: Edward Peterson, GM WFG
Jennifer Tegen/Joe Toth, GM SMI
Lisa Coffey, BBL

Re: Evaluation of LNAPL Sources – GM Saginaw Malleable Iron Plant

This memorandum describes the analyses and interpretation of data for a series of light-non-aqueous-phase liquid (LNAPL) samples recovered from monitoring wells associated with the Saginaw Malleable Iron (SMI) Plant property, located in Saginaw, Michigan. Figure 1 shows the site area and monitoring well locations. Table 1 lists the samples that have been collected and analyzed as part of this investigation. Laboratory sample identifiers are included in Table 1 to facilitate matching data in the attachments to sample locations.

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Table 1. List of LNAPL Samples and Analyses.

Sampling Location/Well	Sampling Date	TPH Analysis ID (Modified 8015)	Alkylated PAH and Biomarker Analysis ID (Modified 8270)
203S	3/10/2003	0303033-01	0303127-01
TP1	3/10/2003	0303033-02	0303127-02
TP2	3/10/2003	0303033-03	0303127-03
QO (quench oil)	3/10/2003	0303033-04	0303127-04
MW-147WT	7/1/2003	0307012-01 0312026-03	0307012-01
MW-157WT	7/1/2003	0307012-02 0312026-04	0307012-02
MW-148WT	12/3/2003	0312026-01	0401055-01
SP (stormwater pond)	3/22/2004	0403073-01	0403073-01

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Total Petroleum Hydrocarbon Fingerprint Analysis

The analysis of total petroleum hydrocarbons (TPH) following modified Method 8015 provides a "fingerprint" of the LNAPL. The analytical output (provided in Attachment 1 for all samples) is a gas chromatogram of the product between approximately the kerosene range and the residual range, and quantification of TPH concentration. The quantification of TPH concentration in NAPL was not a consideration in the forensic evaluation. Each sample was analyzed for the conventional TPH fingerprint. In addition, due to a laboratory error, the MW-147WT and MW-157WT LNAPLs were first analyzed for TPH with n-alkane quantification (included in Attachment 1 as 0307012-01 and -02), and then reanalyzed (0312026-03 and -04) for the more conventional TPH fingerprint, consistent with the remaining samples. The primary objective of the TPH analysis was to identify compositional features of the NAPLs, such as hydrocarbon range, product type (e.g., kerosene-range, diesel-range, lubricating/residual-range, etc.), and degree of weathering.

Comprehensive PAH Fingerprint Analysis

All LNAPL samples underwent PAH fingerprinting analysis, which generated concentration data for a comprehensive suite of constituents, including the alkylated homologue groups of major PAHs (e.g., alkylated naphthalenes, fluorenes), sulfur-containing heterocyclic compounds (e.g., alkylated dibenzothiophenes, naphthobenzothiophenes), and weathering-resistant polyalkane compounds (e.g., alkylated decalins). Including the alkylated homologue groups, the fingerprinting analysis encompasses up to several hundred hydrocarbon compounds, which are reported as 60 target "analytes" (including numerous multi-component homologue groups). The PAH analyses were performed using high-resolution gas chromatography/low-resolution mass spectrometry with selected ion monitoring (HRGC/LRMS-SIM). The method involves a modification of USEPA Method 8270C (SW-846) and is consistent with PAH fingerprinting methods and target constituents cited for the characterization of petroleum (Sauer and Boehm, 1991; Douglas et al, 1992; Brown and Boehm, 1993; Burns, 1993; Sauer and Boehm, 1995; Page et al., 1995; Stout et al., 2002) and other hydrocarbon NAPLs, such as coal tars and creosote (EPRI, 2000). The data are provided as quantification reports and composition histograms in Attachment 2. In addition to providing a comprehensive characterization of the aromatic fraction of petroleum, ratios of alkylated PAHs with similar weathering/degradation resistance have proven to be effective diagnostic indicators of petroleum source (Brown and Boehm, 1993; Page et al., 1995; Stout et al., 2002).

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Geochemical Biomarkers Analysis

The modified Method 8270 analysis described above included monitoring ions 191 and 217 for steranes and triterpanes. These aliphatic compound classes are considered geochemical biomarkers because they are indicative of the source petroleum formation and are resistant to weathering and biodegradation alterations (Page et al., 1995; Sauer et al., 1993; Stout et al., 2002). From the selected ion profiles provided in Attachment 3 as the data from this analysis, one can see that these complex aliphatic compounds constitute some of the unresolved complex mixture (UCM) humps that are characteristic of various petroleum product TPH chromatograms (e.g., data in Attachment 1). The use of the geochemical biomarker data in this investigation is primarily qualitative, similar to the use of the TPH fingerprints. An important difference between the TPH fingerprints in Attachment 1 and the geochemical biomarker fingerprints in Attachment 3 is that the TPH fingerprints are more susceptible to weathering/degradation alterations than the biomarker fingerprints. This difference makes the biomarker fingerprints more useful for comparing potentially weathered/degraded NAPLs and/or residues.

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Results

The compositional characteristics for the LNAPLs analyzed in this investigation are summarized in Table 2.

Table 2. Summary of Compositional Characteristics.

Sampling Location/Well	TPH Fingerprint	PAH and Related Fraction	Geochemical Biomarkers
203S (suspected representative cutting oil)	$n\text{-}C_{15}$ - $n\text{-}C_{32}$ unresolved complex mixture hump (UCM); n-alkanes absent	Phenanthrenes, Naphthalenes, Fluorenes, Decalins prominent; moderately weathered	Cutting Oil pattern
TP1	$n\text{-}C_{15}$ - $n\text{-}C_{32}$ UCM; n-alkanes absent	Decalins, Fluorenes, Phenanthrenes prominent; moderately weathered	MW-147 pattern
TP2	$n\text{-}C_{15}$ - $n\text{-}C_{32}$ UCM; n-alkanes absent	Decalins, Fluorenes, Phenanthrenes prominent; moderately weathered	MW-147 pattern
QO (quench oil)	$n\text{-}C_{18}$ - $n\text{-}C_{32}$ UCM; $n\text{-}C_{15}$ through $n\text{-}C_{22}$ present	Decalins absent; Phenanthrenes, Fluorenes prominent; slightly weathered	Quench Oil pattern
MW-147WT	$n\text{-}C_{15}$ - $n\text{-}C_{32}$ UCM; n-alkanes absent	Phenanthrenes, Fluorenes, Decalins prominent; moderately weathered	MW-147 pattern
MW-157WT	$n\text{-}C_{15}$ - $n\text{-}C_{32}$ UCM; n-alkanes absent	Phenanthrenes, Naphthalenes, Fluorenes, Decalins prominent; slightly weathered	Cutting Oil pattern
MW-148WT	$n\text{-}C_{15}$ - $n\text{-}C_{32}$ UCM; n-alkanes absent	Phenanthrenes, Fluorenes, Naphthalenes, Decalins prominent; slightly weathered	Cutting Oil pattern
SP (stormwater pond)	$n\text{-}C_{15}$ - $n\text{-}C_{32}$ UCM; n-alkanes absent	Phenanthrenes, Decalins, Naphthalenes, Fluorenes prominent; slightly weathered	MW-147 pattern

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The TPH fingerprint analysis revealed chromatograms associated with middle-distillate-range petroleum, featuring UCM ranging from n-C_{15} to n-C_{32} without n-alkanes evident in any monitoring well or test pit samples; the quench oil sample included n-alkanes from n-C_{15} to n-C_{22}. As can be seen from the chromatograms in Attachment A, the quench oil sample UCM was shifted relative to the other samples (n-C_{18} to n-C_{32}), although weathering/degradation could account for the slight shift in the UCM. Thus, the TPH fingerprints did not lead to a forensic conclusion.

The alkylated PAH analysis revealed some homologue groups that were common to several samples. Although decalins are not aromatic compounds, they were analyzed quantitatively along with the alkylated PAH homologues and the several heterocyclic aromatic homologue groups (e.g., dibenzothiophenes). The absence of decalins in the quench oil sample was a distinguishing feature from all other LNAPLs which contained measurable concentrations of decalins. The absence of decalins in the quench oil eliminates the possibility of quench oil as a single, or even primary source of the LNAPL recovered from TP1 and TP2.

Ratios of alkylated dibenzothiophenes to corresponding phenanthrenes-plus-anthrences have been used as effective source markers for middle-distillate-range petroleum and crude oil (e.g., Brown and Boehm, 1993; Sauer et al., 1993; Page et al., 1995). Figure 1 illustrates three apparent source groupings for the LNAPL samples in this investigation. The "cutting oil signature group" is so designated because 203S is presumed to contain cutting oil from operations at the Delphi plant. The LNAPL from MW-147WT exhibited much different PAH source ratios than the other samples and may indicate an unidentified source, despite that well's proximity to MW-157WT, TP1 and TP2 on the SMI property. The quench oil, TP1, TP2, SP, and MW-157WT all exhibited similar PAH ratios in Figure 1. However, the absence of the aliphatic decalins in the quench oil, as noted above, indicated a different or additional NAPL source to TP1 and TP2. Thus, the PAH signatures associated with TP1, TP2, SP and MW-157WT may have resulted from 1) a mixture of cutting oil and the NAPL at MW-147WT, 2) a mixture of cutting oil and quench oil, 3) a mixture of quench oil and the NAPL at MW-147WT, or 4) a mixture of cutting oil, quench oil and the NAPL at MW-147WT.

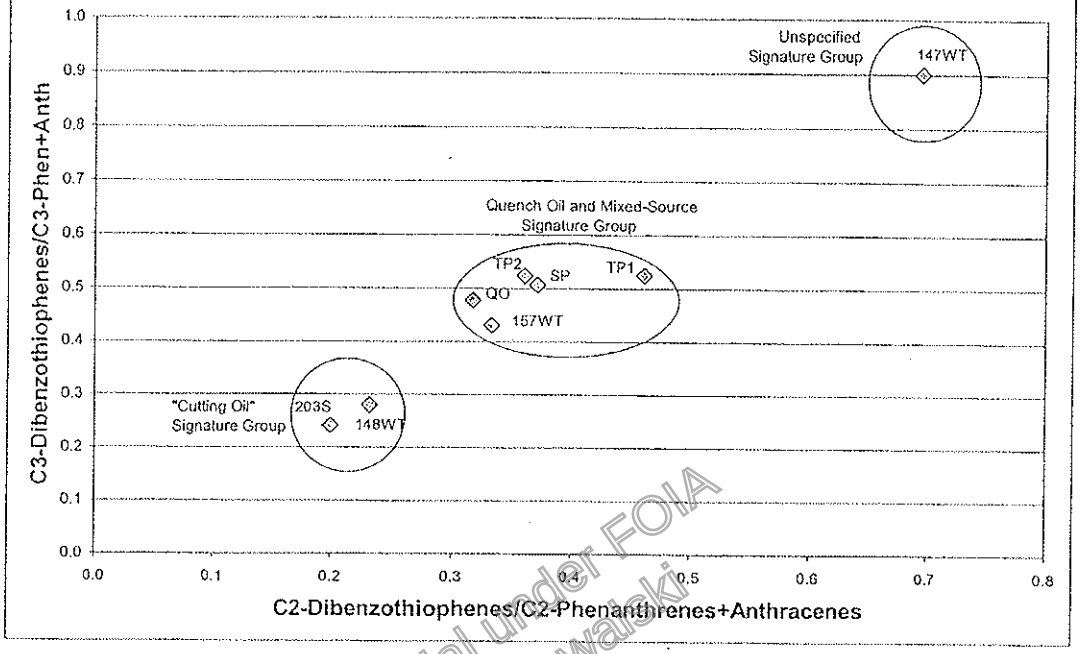
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The geochemical biomarker chromatograms (Attachment 3) may be used for qualitative identification. The "patterns" designated in Table 2 refer to the peaks that appear for ions 191 and 217, their relative heights, and the general shape of the UCM. In Table 2, a similar pattern, designated "cutting oil pattern," was observed for LNAPLs 203S, MW-148WT, and MW-157WT; a similar pattern, designated "MW-147," was observed for MW-147WT, TP1, TP2, and SP; and a third different pattern was observed for the quench oil. The biomarker scans, in combination with the diagnostic PAH ratios in Figure 1 suggested that the cutting oil and the LNAPL at MW-147WT contribute to the NAPL in the TP1, TP2, SP and MW-157WT cluster. It is possible, based on the PAH ratios in Figure 1, that some quench oil may have also contributed to the LNAPL in the TP1, TP2, SP and MW-157WT cluster. However, it is very unlikely that there was any quench oil contribution to the LNAPL associated with 203S, MW-148WT, or MW-147WT.

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Figure 1. Source Ratio Plot of LNAPL Samples



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Conclusions

- LNAPLs in TP1, TP2, SP and MW-157WT were middle-distillate-range petroleum products reflecting a likely mixture of cutting oil from the Delphi operation, LNAPL from MW-147WT, and possibly quench oil from the SMI operation; and

- Quench oil from the SMI operation is not likely a source of LNAPL collected from 203S, MW-148WT, or MW-147WT.

References

Brown, J.S. and Boehm, P.D. 1993. The use of double-ratio plots of polynuclear aromatic hydrocarbon (PAH) alkyl homologues for petroleum source identification. In: Proceedings of the 1993 International Oil Spill Conference, Tampa, FL. American Petroleum Institute, Washington, DC. pp. 799-801.

Burns, K.A. 1993. Analytical methods used in oil spill studies. Mar. Pollut. Bull. 26(2), 68-72.

Douglas, G.S., McCarthy, K.J., Dahlen, D.T., Seavey, J.A., and Steinhauer, W.G. 1992. The use of hydrocarbon analyses for environmental assessment and remediation. Journal of Soil Contamination. 1(3), 197-216.

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EPRI. 2000. Chemical Source Attribution at Former MGP Sites. EPRI, Palo Alto, CA, NYSEG, Binghampton, NY, and RG&E, Rochester, NY: 2000. 1000728.

Page, D.S., Boehm, P.D., Douglas, G.S., and Bence, A.E. 1995. Identification of hydrocarbon sources in the benthic sediments of Prince William Sound and the Gulf of Alaska following the *Exxon Valdez* oil spill. In: *Exxon Valdez* Oil Spill: Fate and Effects in Alaskan Waters. (Wells, P.G., Butler, J.N., and Hughes, J.S., Eds.), American Society for Testing and Materials (ASTM STP 1219), Philadelphia, PA. pp. 41-83.

Sauer, T.C. and Boehm, P.D. 1991. The use of defensible analytical chemical measurements for oil spill natural resource damage assessment. In: Proceedings of the 1991 International Oil Spill Conference, San Diego, CA. United States Coast Guard, American Petroleum Institute, and United States Environmental Protection Agency. pp. 363-369.

Sauer, T.C., Brown, J.S., Boehm, P.D., Aurand, D.V., Michel, J., and Hayes, M.O. 1993. Hydrocarbon source identification and weathering characterization of intertidal and subtidal sediments along the Saudi Arabian coast after the Gulf War oil spill. Mar. Pollut. Bull. 27, 117-134.

Sauer, T.C. and Boehm, P.D. 1995. Hydrocarbon Chemistry Analytical Methods for Oil Spill Assessments. Marine Spill Research Corporation, Washington, DC. MSRC Technical Report Series 95-032. 114 p.

Stout, S.A., Uhler, A.D., McCarthy, K.J., and Emsbo-Mattingly, S. 2002. Chemical fingerprinting of hydrocarbons. In: Introduction to Environmental Forensics. pp. 137-260. (Murphy, B.L. and Morrison, R.D., Eds.) San Diego, San Francisco, New York, Boston, London, Sydney, and Tokyo, Academic Press.

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MW-147WT	MW-153WT	MW-157WT	TP-2	RW-1	RW-2	MW-169WT	MW-175WT	MW-178WT	MW-179WT
NA (TYPICALLY>2')	NP	0.02'	3.40'	4.40'	NA	NA	NA	0.00'	NP
1.58'			0.76'	0.07'	NP	NP	NP	0.28'	

FORMER DELPHI SAGINAW STEERING SYSTEMS PLANT 2 (DEMOLISHED TO SLAB)

GM SAGINAW MALLEABLE IRON PLANT

WET WELL

FORMER COOLING TOWER PAD

ASSEMBLY LINE BASEMENT

DIVERSION CHAMBER

API SEPARATOR

ABANDONED QUENCH OIL LINE

WASTEWATER TREATMENT FACILITY

OIL FILTRATION UNIT

EQUIPMENT STORAGE AREA

QUENCH OIL TANKS (ABOVE GROUND)

RWTF

APPROXIMATE LOCATION OF BUFFER BASIN

GATE

MW-168WT	RW-3	MW-158WT	MW-162WT	MW-172WT	MW-160WT	MW-161WT	MW-181WT	MW-180WT
NA	0.01'	0.01'	NP	1.02'	0.11'	NP	NP	NP
NA	NP	NP		0.38'	NP			

LEGEND:

- GM SAGINAW MALLEABLE IRON PLANT PROPERTY LINE (APPROX.)
- UNPAVED ROAD
- GROUND SURFACE ELEVATION CONTOUR (10 FT INTERVAL)
- FENCE LINE
- SEWER
- MW-132WT,S1 — MONITORING WELL CLUSTER
- MW-147WT — MONITORING WELL
- TW-237 — TEMPORARY MONITORING WELL
- TP-1 — PIEZOMETER
- RW-1 — RECOVERY WELL
- RW-1 / 4.40' / 0.07' — WELL ID; 2004 LNAPL THICKNESS (FT); 2007 LNAPL THICKNESS (FT)
- ESTIMATED EXTENT OF LNAPL–2004
- ESTIMATED EXTENT OF LNAPL–2007
- NA — MONITORING POINT WAS NOT ACCESSIBLE
- NP — NO MEASUREABLE LNAPL

NOTES:

1. THIS PHOTOGRAMMETRIC BASE MAP FOR THE GM SAGINAW MALLEABLE IRON PLANT AND DELPHI SAGINAW STEERING SYSTEMS PLANT 2 PROPERTIES WAS PREPARED BY LOCKWOOD MAPPING, INC. OF ROCHESTER, NEW YORK. AERIAL PHOTOGRAPHY WAS CONDUCTED ON 11/11/94. ORIGINAL LOCKWOOD MAP WAS AT A SCALE OF 1"=100' AND WAS INTERPRETED FOR TWO–FOOT CONTOURS.
2. SAMPLING LOCATIONS SURVEYED BY ATWELL–HICKS, INC. UTICA, MICHIGAN, FILE NO. M1014SU2, FILE DATE 3/22/96.
3. VERTICAL DATUM REFERENCED TO NGVD OF 1929, HORIZONTAL DATUM REFERENCED TO MICHIGAN SPC–NAD 1983.
4. SEWER INFORMATION FROM SPICER ENGINEERING COMPANY DRAWING NO. 15499–P, 1995. LOCATIONS ARE APPROXIMATE.

0 120' 240'

GRAPHIC SCALE

SAGINAW MALLEABLE IRON PLANT PROPERTY

APPARENT LNAPL THICKNESS FEBRUARY 26, 2004 AND JUNE 11, 2007

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE 1

SYR_85–DMW RCB GMS LAYER: ON=*; OFF=REF
G:\CAD\ACTIVE\–DWG\ACT\64434001\64434001.DWG SAVED:6/21/2007 3:29 PM LAYOUT:1 PAGESETUP:BL–PDF PENTABLE:PLTFULL.CTB PRINTED:6/21/2007 3:29 PM BY:GSTOWELL
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Site Investigation Report

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REALM Inc.
Peninsula Area Property
Saginaw, Michigan

August 10, 2005

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4. Summary and Conclusions

Based on the distribution of VOCs in groundwater observed at the Peninsula Area, we believe that the VOC compounds detected above the generic MDEQ criteria have migrated to the property from the adjacent Plant 2 property, north of the Peninsula. The VOCs detected above criteria are consistently found at greater concentrations with depth, and previous soil investigation did not detect significant concentrations of these compounds in the soil above the water table on the Peninsula property. This distribution indicates the likelihood of an off-Site source. This belief is further supported by the detection of similar elevated VOC concentrations on the upgradient Delphi property. A progression from parent (e.g., trichloroethene) to daughter degradation product VOCs (e.g. vinyl chloride) is also observed along the groundwater flow path from the Delphi Site onto the REALM property. The distribution of the SVOCs detected above criteria also suggests an off-Site source; however, because of elevated detection limits for the SVOC samples collected at the Delphi property, this could not be verified with existing data.

Iron has been detected at multiple locations at and surrounding the Site at concentrations above the IDW criteria. The IDW criteria were used for screening purposes; however, since the groundwater is not used for drinking water purposes, additional future monitoring for iron is not recommended. Barium was detected at one interior Site location at a concentration above the IDW criteria. Additional future monitoring for barium is also not recommended due to the lack of groundwater use. The elevated concentrations of selenium in the southern part of the Site may be related to an on-Site source. However, the concentrations of selenium are below the GSI criteria of 5 ug/L upgradient of the wetland at monitoring wells MW01-118WT, MW04-118S1, MW04-122WT, MW04-122S1, MW04-123WT and MW04-123S1, with a maximum selenium detection of 2.3 ug/L, well below the GSI criteria. Selenium will be sampled for in another round of groundwater sampling, due to the detection of selenium in the surface water sample at a concentration above the FCV. At the time of collection of the surface water sample, the surface water present amounted to a small stagnant pool of water. It is recommended that additional surface water samples be collected during a period of time when the area of standing surface water is expanded and not frozen.

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TABLE 4

GROUNDWATER ANALYTICAL RESULTS - SEPTEMBER 2004
VOLATILE ORGANIC COMPOUNDS

REALM INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

Location ID:	MDEQ Criteria					MW-129WT	MW-129WT
Date Sampled:						9/17/2004	9/17/2004
Sample Type:	GCC	IGVIA	FESL	IDW	GSI	FS	DUP
Volatile Organic Compounds (ug/L)							
1,1-Dichloroethane	2.4E+06	2.3E+06	3.8E+05	2,500	740	1.0 U	1.0 U
1,2-Dichloroethene, Total	--	--	--	--	--	**1.1 J**	**1.1 J**
cis-1,2-Dichloroethene	2.0E+05	2.1E+05	5.3E+05	70 {A}	620	**1.1**	**1.1 J**
trans-1,2-Dichloroethene	2.2E+05	2.0E+05	2.3E+05	100 {A}	1,500	1.0 U	1.0 U
2-Butanone	2.4E+8 {S}	2.4E+8 {S}	ID {I}	38,000	2,200	25 U	25 U
Acetone	3.1E+07	1.0E+9 {D,S}	1.5E+07	2,100	1,700	25 U	25 U
Benzene	11,000	35,000	68,000 {I}	5 {A}	200 {X}	1.0 U	1.0 U
Chlorobenzene	86,000	4.7E+5 {S}	1.6E+5 {I}	100 {A}	47	1.0 U	1.0 U
Chloroethane	4.4E+05	5.7E+6 {S}	1.1E+05	1,700	ID	1.0 U	1.0 U
Ethylbenzene	1.7E+5 {S}	1.7E+5 {S}	43,000	74 {E}	18	1.0 U	1.0 U
Toluene	5.3E+5 {S}	5.3E+5 {S}	61,000 {I}	790 {E}	140	1.0 U	1.0 U
Trichloroethene	22,000	97,000	ID	5.0 {A}	200 {X}	1.0 U	1.0 U
Vinyl chloride	1,000	13,000	33,000	2.0 {A}	15	**0.59 J**	**0.60 J**
Xylenes, Total	1.9E+5 {S}	1.9E+5 {S}	70,000	280 {E}	35	2.0 U	2.0 U

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GROUNDWATER ANALYTICAL RESULTS - SEPTEMBER 2004
VOLATILE ORGANIC COMPOUNDS

REALM INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

Location ID:	MW-144WT	MW-144WT	MW01-118WT	MW01-119S1	MW04-118S1	MW04-119WT	MW04-121S1	MW04-121WT
Date Sampled:	9/15/2004	9/15/2004	9/16/2004	9/16/2004	9/16/2004	9/16/2004	9/16/2004	9/16/2004
Sample Type:	FS	DUP	FS	FS	FS	FS	FS	FS
Volatile Organic Compounds (ug/L)								
1,1-Dichloroethane	0.22 J	1.0 U	2.9 U	1.0 U	170 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethene, Total	2.0 U	2.0 U	5.7 U	2.0 U	1,700	2.0 U	2.0 U	2.0 U
cis-1,2-Dichloroethene	1.0 U	1.0 U	2.9 U	1.0 U	1,700 [IDW, GSI, FCV]	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	1.0 U	1.0 U	2.9 U	1.0 U	170 U	1.0 U	1.0 U	1.0 U
2-Butanone	25 U	25 U	72 U	25 UJ	4,200 U	25 UJ	0.46 J	25 U
Acetone	25 U	25 U	9.1 J	2.1 J	4,200 U	2.1 J	3.4 J	2.6 J
Benzene	0.37 J	1.0 U	5.6 [IDW]	1.0 U	170 U	0.25 J	0.41 J	0.26 J
Chlorobenzene	1.0 U	1.0 U	82 [GSI, FCV]	1.0 U	140 J [IDW, GSI, FCV]	1.0 U	1.0 U	1.0 U
Chloroethane	5.7	1.0 U	2.9 U	1.0 U	170 U	1.0 U	1.7	1.0 U
Ethylbenzene	1.0 U	1.0 U	2.9 U	1.0 U	110 J [IDW, GSI, FCV]	1.0 U	1.0 U	1.0 U
Toluene	0.27 J	1.0 U	2.9 U	1.0 U	38 J	1.0 U	1.0 U	1.0 U
Trichloroethene	1.0 U	1.0 U	2.9 U	1.0 U	170 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	1.0 U	1.0 U	2.9 U	1.0 U	8,000 [GCC, IDW, GSI, FCV]	1.0 U	1.0 U	1.0 U
Xylenes, Total	2.0 U	2.0 U	8.5	2.0 U	500 [IDW, GSI, FCV]	2.0 U	2.0 U	2.0 U

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GROUNDWATER ANALYTICAL RESULTS - SEPTEMBER 2004
VOLATILE ORGANIC COMPOUNDS

REALM INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

Location ID:	MW04-122S1	MW04-122WT	MW04-123WT	MW04-123S1	MW04-124S1
Date Sampled:	9/16/2004	9/16/2004	9/16/2004	9/16/2004	9/15/2004
Sample Type:	FS	FS	FS	FS	FS
Volatile Organic Compounds (ug/L)					
1,1-Dichloroethane	500 U	22 U	6.7 U	830 U	1.0 U
1,2-Dichloroethene, Total	6,900	540	110	9,400	0.47 J
cis-1,2-Dichloroethene	6,900 [IDW, GSI, FCV]	540 [IDW]	110 [IDW]	9,400 [IDW, GSI, FVC]	0.47 J
trans-1,2-Dichloroethene	500 U	3.46	6.7 U	830 U	1.0 U
2-Butanone	12,000 U	9.8 J	170 U	21,000 U	25 U
Acetone	12,000 U	27 J	8.5 J	21,000 U	25 U
Benzene	500 U	13 J [IDW]	2.7 J	830 U	1.0 U
Chlorobenzene	500 U	65 [GSI, FCV]	21	830 U	1.0 U
Chloroethane	500 U	22 U	6.7 U	830 U	0.77 J
Ethylbenzene	700 [IDW, GSI, FCV, FAV]	22 [GSI, FCV]	6.7 U	830 U	1.0 U
Toluene	240 J [GSI, FCV]	6.6 J	1.3 J	830 U	0.51 J
Trichloroethene	500 U	22 U	6.7 U	830 U	1.0 U
Vinyl chloride	13,000 [GCC, IGVIA, IDW, GSI, FCV]	480 [IDW, GSI]	230 [IDW, GSI]	27,000 [GCC, IGVIA, IDW, GSI, FAV, FCV]	16 [IDW, GSI]
Xylenes, Total	1,400 [IDW, GSI, FAV, FCV]	44 [GSI, FCV]	13	1,700 U	2.0 U

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GROUNDWATER ANALYTICAL RESULTS - SEPTEMBER 2004
VOLATILE ORGANIC COMPOUNDS

REALM INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

Location ID:	MW04-124WT	MW97-104S1	MW97-104WT	MW97-105S1	MW97-105WT	MW98-108S1	MW98-109S1
Date Sampled:	9/15/2004	9/16/2004	9/16/2004	9/15/2004	9/15/2004	9/15/2004	9/15/2004
Sample Type:	FS	FS	FS	FS	FS	FS	FS
Volatile Organic Compounds (ug/L)							
1,1-Dichloroethane	1.0 U	110 U	1.0 U	1.0 U	1.0 U	200 U	50 U
1,2-Dichloroethene, Total	2.0 U	**2,400**	**0.72 J**	2.0 U	2.0 U	**5,200**	**180**
cis-1,2-Dichloroethene	1.0 U	**2,400 [IDW, GSI, FCV]**	**0.43 J**	1.0 U	1.0 U	**5,200 [IDW, GSI, FCV]**	**180 [IDW]**
trans-1,2-Dichloroethene	1.0 U	110 U	**0.29 J**	1.0 U	1.0 U	200 U	50 U
2-Butanone	25 U	2,800 U	25 U	25 U	25 U	5,000 U	1,200 U
Acetone	**1.7 J**	2,800 U	**1.2 J**	**8.0 J**	**7.6 J**	5,000 U	1,200 U
Benzene	**0.24 J**	110 U	**4.9**	**0.25 J**	**1.2**	200 U	50 U
Chlorobenzene	1.0 U	**220 [IDW, GSI, FCV]**	**6**	1.0 U	1.0 U	200 U	**79 [GSI, FCV]**
Chloroethane	**0.60 J**	110 U	1.0 U	**1.7**	**0.73 J**	200 U	50 U
Ethylbenzene	1.0 U	110 U	1.0 U	1.0 U	1.0 U	200 U	50 U
Toluene	**0.50 J**	110 U	1.0 U	**0.32 J**	**0.45 J**	200 U	**12 J**
Trichloroethene	1.0 U	110 U	**0.59 J**	1.0 U	1.0 U	200 U	50 U
Vinyl chloride	**0.27 J**	**1,900 [GCC, IDW, GSI, FCV]**	1.0 U	1.0 U	1.0 U	**5,000 [GCC, IDW, GSI, FCV]**	**2,100 [GCC, IDW, GSI, FCV]**
Xylenes, Total	2.0 U	220 U	**3.1**	2.0 U	**2.9**	400 U	100 U

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GROUNDWATER ANALYTICAL RESULTS - SEPTEMBER 2004
VOLATILE ORGANIC COMPOUNDS

REALM INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

Location ID:	MW98-110S1	MW98-110WT	MW98-111S1	MW98-111WT	TW98-108WT	TW98-109WT
Date Sampled:	9/17/2004	9/17/2004	9/17/2004	9/17/2004	9/15/2004	9/15/2004
Sample Type:	FS	FS	FS	FS	FS	FS
Volatile Organic Compounds (ug/L)						
1,1-Dichloroethane	420 U	1.0 U	83 U	2.0 U	1.0 U	3.3 U
1,2-Dichloroethene, Total	13,000	2.0 U	170 U	4.0 U	2.0 U	6.7 U
cis-1,2-Dichloroethene	13,000 [IDW, GSI, FCV, FAV]	1.0 U	83 U	2.0 U	1.0 U	3.3 U
trans-1,2-Dichloroethene	110 J [IDW]	1.0 U	83 U	2.0 U	1.0 U	3.3 U
2-Butanone	10,000 U	1.6 J	2,100 U	2.0 J	25 U	83 U
Acetone	10,000 U	7.6 J	2,100 U	8.2 J	1.9 J	5.4 J
Benzene	420 U	1.0 U	95 [IDW]	13 B [IDW]	0.34 J	4
Chlorobenzene	420 U	1.0 U	200 [IDW, GSI, FCV]	9.5	0.96 J	110 [IDW, GSI, FCV]
Chloroethane	420 U	1.0 U	83 U	2.0 U	1.0 U	3.3 U
Ethylbenzene	420 U	1.0 U	1,700 [IDW, GSI, FCV, FAV]	44 [GSI, FCV]	1.0 U	3.3 U
Toluene	420 U	1.0 U	810 [IDW, GSI, FCV]	1.7 J	1.0 U	1.2 J
Trichloroethene	420 U	1.0 U	83 U	2.0 U	1.0 U	3.3 U
Vinyl chloride	1,400 [FCV, GCC, GSI, IDW]	1.0 U	83 U	0.88 J	1.0 U	2.4 J [IDW]
Xylenes, Total	830 U	2.0 U	5,400 [IDW, GSI, FAV, FCV]	150 [GSI, FCV]	2.0 U	9.8

Notes:
Data shown for only those Target Compound List volatile organic compounds that were detected in one or more samples.
See Generic Notes pages.

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TABLE 5

GROUNDWATER ANALYTICAL RESULTS - SEPTEMBER 2004
SEMIVOLATILE ORGANIC COMPOUNDS

REALM INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

Location ID:	MDEQ Criteria			MW-129WT	MW-129WT	MW-144WT	MW-144WT
Date Sampled:				9/17/2004	9/17/2004	9/15/2004	9/15/2004
Sample Type:	GCC	IDW	GSI	FS	DUP	FS	DUP
Semivolatile Organic Compounds (ug/L)							
1,2-Dichlorobenzene	1.6E+5 {S}	600 {A}	16	10 U	10 U	25 U	25 U
1,4-Dichlorobenzene	6,400	75 {A}	13	10 U	10 U	25 U	25 U
2,4-Dimethylphenol	5.2E+05	1,000	380	10 U	10 U	25 U	25 U
2-Methylnaphthalene	25,000 {S}	750	ID	5.0 U	5.0 U	12 U	12 U
4-Methylphenol	NA	NA	NA	5.0 U	5.0 U	12 U	12 U
bis(2-Chloroisopropyl) ether	NA	NA	NA	4.0 U	4.0 U	10 U	10 U
bis(2-Ethylhexyl)phthalate	32	6 {A}	32	5.0 U	**6.7 [IDW]**	12 U	12 U
Naphthalene	31,000 {S}	1,500	13	5.0 U	5.0 U	12 U	12 U
Phenol	2.9E+07	13,000	210	5.0 U	5.0 U	5.0 U	5.0 U

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TABLE 5

GROUNDWATER ANALYTICAL RESULTS - SEPTEMBER 2004
SEMIVOLATILE ORGANIC COMPOUNDS

REALM INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

Location ID:	MW01-118WT	MW01-119S1	MW04-118S1	MW04-119WT	MW04-121S1	MW04-121WT	MW04-122S1	MW04-122WT
Date Sampled:	9/16/2004	9/16/2004	9/16/2004	9/16/2004	9/16/2004	9/16/2004	9/16/2004	9/16/2004
Sample Type:	FS	FS	FS	FS	FS	FS	FS	FS
Semivolatile Organic Compounds (ug/L)								
1,2-Dichlorobenzene	40 U	10 U	**19 J [FCV, GSI]**	10 U	40 U	10 U	40 U	100 U
1,4-Dichlorobenzene	40 U	10 U	40 U	10 U	40 U	10 U	40 U	100 U
2,4-Dimethylphenol	20 U	5.0 U	20 U	5.0 U	20 U	5.0 U	20 U	50 U
2-Methylnaphthalene	20 U	5.0 U	20 U	5.0 U	20 U	5.0 U	20 U	50 U
4-Methylphenol	20 U	5.0 U	20 U	5.0 U	20 U	5.0 U	20 U	50 U
bis(2-Chloroisopropyl) ether	20 U	**6.3**	**12 J**	5.0 U	20 U	5.0 U	**24**	**7.8 J**
bis(2-Ethylhexyl)phthalate	20 U	3.8 U	20 U	5.0 U	20 U	3.8 U	20 U	50 U
Naphthalene	20 U	5.0 U	20 U	5.0 U	20 U	5.0 U	**9.0 J**	50 U
Phenol	5.0 U	20 U	5.0 U	**0.63 J**	5.0 U	5.0 U	5.0 U	5.0 U

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TABLE 5

GROUNDWATER ANALYTICAL RESULTS - SEPTEMBER 2004
SEMIVOLATILE ORGANIC COMPOUNDS

REALM INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

Location ID:	MW04-123WT	MW04-123S1	MW04-124S1	MW04-124WT	MW97-104S1	MW97-104WT	MW97-105S1	MW97-105WT
Date Sampled:	9/16/2004	9/16/2004	9/15/2004	9/15/2004	9/16/2004	9/16/2004	9/15/2004	9/15/2004
Sample Type:	FS	FS	FS	FS	FS	FS	FS	FS
Semivolatile Organic Compounds (ug/L)								
1,2-Dichlorobenzene	10 U	10 U	10 U	10 U	17 [GSI, FCV]	40 U	10 U	10 U
1,4-Dichlorobenzene	10 U	10 U	10 U	10 U	13 [GSI]	40 U	10 U	10 U
2,4-Dimethylphenol	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	20 U	5.0 U	5.0 U
2-Methylnaphthalene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	20 U	5.0 U	5.0 U
4-Methylphenol	5.0 U	1.3 J #	5.0 U	5.0 U	5.0 U	20 U	5.0 U	0.88 J #
bis(2-Chloroisopropyl) ether	5.0 U	6.7	5.0 U	5.0 U	5.4	20 U	5.0 U	5.0 U
bis(2-Ethylhexyl)phthalate	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	20 U	5.0 U	5.0 U
Naphthalene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	20 U	5.0 U	5.0 U
Phenol	20 U	25 U	5.0 U	5.0 U	20 U	20 U	5.0 U	0.63 J

See Notes on Page 4.

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TABLE 5

GROUNDWATER ANALYTICAL RESULTS - SEPTEMBER 2004
SEMIVOLATILE ORGANIC COMPOUNDS

REALM INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

Location ID:	MW98-108S1	MW98-109S1	MW98-110S1	MW98-110WT	MW98-111S1	MW98-111WT	TW98-108WT	TW98-109WT
Date Sampled:	9/15/2004	9/15/2004	9/17/2004	9/17/2004	9/17/2004	9/17/2004	9/15/2004	9/15/2004
Sample Type:	FS	FS	FS	FS	FS	FS	FS	FS
Semivolatile Organic Compounds (ug/L)								
1,2-Dichlorobenzene	10 U	10 U	10 U	10 U	40 U	50 U	10 U	40 U
1,4-Dichlorobenzene	10 U	10 U	10 U	10 U	40 U	50 U	10 U	4.1 J
2,4-Dimethylphenol	5.0 U	5.0 U	5.0 U	5.0 U	4.5 J	25 U	5.0 U	20 U
2-Methylnaphthalene	5.0 U	5.0 U	5.0 U	5.0 U	3.2 J	25 U	5.0 U	20 U
4-Methylphenol	5.0 U	5.0 U	5.0 U	5.0 U	20 U	25 U	5.0 U	20 U
bis(2-Chloroisopropyl) ether	0.92 J	5.0 U	1.0 J	3.8 J	47	6.5 J	0.98 J	4.0 J
bis(2-Ethylhexyl)phthalate	5.0 U	1.0 JB	1.0 J	1.2 J	6.2 J [IDW]	25 U	11 [IDW]	20 U
Naphthalene	5.0 U	5.0 U	5.0 U	5.0 U	88 [FCV, GSI]	5.7 J	5.0 U	20 U
Phenol	5.0 U	5.0 U	5.0 U	5.0 U	20 U	25 U	5.0 U	20 U

Notes:
Data shown for only those Target Compound List semivolatile organic compounds that were detected in one or more samples.
See Generic Notes pages.

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TABLE 6

GROUNDWATER ANALYTICAL RESULTS - SEPTEMBER AND DECEMBER 2004
INORGANIC CONSTITUENTS

REALM INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

Location ID: / Date Sampled: / Sample Type:	MDEQ Criteria Values IDW	GCC	GSI	Site-Specific Background	MW-129WT 9/17/2004 FS	MW-129WT 9/17/2004 DUP	MW-144WT 9/15/2004 FS
Inorganics, Dissolved (ug/L)							
Arsenic	50 {A}	4,300	150 {X}	--	38	37	8.3
Barium	2,000 {A}	1.40E+07	1,800 {G,X}	1,200	132	130	110
Chromium	100 {H}	2.90E+08	11 (Cr VI)	--	2.0 U	2.0 U	0.24 B
Copper	1,000 {E}	7.40E+06	27 {G}	--	2.0 U	2.0 U	2.0 U
Iron	300 {E}	5.80E+07	NA	13,000	21,300 J [IDW]	21,300 J [IDW]	14,600 J [IDW]
Lead	4 {L}	ID	41 {G,X}	6	1.0 U	1.0 U	1.0 U
Nickel	100 {A}	7.40E+07	160 {G}	--	5.5 J	5.6 J	5.6
Selenium	50 {A}	9.70E+05	5	--	2	1.4 B	11 [GSI, FCV]
Zinc	5,000 {E}	1.10E+08	360 {G}	2,000	10 U	10 U	10 U
Inorganics, Total (ug/L)				--			
Arsenic	50 {A}	4,300	150 {X}	--	39	38	8.3
Barium	2,000 {A}	1.40E+07	1,800 {G,X}	1,200	131	129	111
Cadmium	5{A}	1.90E+05	5.9 {G,X}	--	0.50 U	0.50 U	0.50 U
Chromium	100 {H}	2.90E+08	11 (Cr VI)	--	0.27 B	2.0 U	0.28 B
Copper	1,000 {E}	7.40E+06	27 {G}	--	2.0 U	2.0 U	0.35 B
Iron	300 {E}	5.80E+07	NA	13,000	21,500 J [IDW]	21,400 J [IDW]	14,600 [IDW]
Lead	4 {L}	ID	41 {G,X}	6	1.0 U	1.0 U	1.0 U
Nickel	100 {A}	7.40E+07	160 {G}	--	5.4 J	5.5 J	5.6
Selenium	50 {A}	9.70E+05	5	--	2.3	1.2 B	12 [GSI, FCV]
Zinc	5,000 {E}	1.10E+08	360 {G}	2,000	4.1 B	4.5 B	10 U

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GROUNDWATER ANALYTICAL RESULTS - SEPTEMBER AND DECEMBER 2004
INORGANIC CONSTITUENTS

REALM INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

Location ID:	MW-144WT	MW-144WT	MW01-118WT	MW01-119S1	MW01-119S1	MW04-118S1	MW04-119WT	MW04-119WT
Date Sampled:	12/21/2004	9/15/2004	9/16/2004	9/16/2004	12/22/2004	9/16/2004	9/16/2004	12/22/2004
Sample Type:	FS	DUP	FS	FS	FS	FS	FS	FS
Inorganics, Dissolved (ug/L)								
Arsenic	--	8	23.2	4.6	--	3.2	4.2	--
Barium	--	107	93. J	1,370 [GSI]	--	741 J	290	--
Chromium	--	0.27 B	2.0 U	2.0 U	--	2.0 U	2.0 U	--
Copper	--	2.0 U	2.0 U	2.0 U	--	0.39 B	2.0 U	--
Iron	--	14,100 J [IDW]	3,540 J	3,960 J	--	6,600 J	15,400 J [IDW]	--
Lead	--	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--
Nickel	--	5.4	3.5	2.8	--	5.2	3.1	--
Selenium	7.9 [GSI, FCV]	11 [GSI, FCV]	1.3 B	15.2 [GSI, FCV]	17.3 [GSI, FCV]	1.3 B	15.3 [GSI, FCV]	12.9 [GSI, FCV]
Zinc	--	10 U	10. U	41.1	--	20	13.6	--
Inorganics, Total (ug/L)								
Arsenic	--	7.9	22	4.1	--	3.7	4.5	--
Barium	--	109	90.4 J	1,340 [GSI]	--	920 J	307	--
Cadmium	--	0.50 U	0.50 U	0.50 U	--	0.50 U	0.50 U	--
Chromium	--	0.26 B	2.0 U	2.0 U	--	2.0 U	1.5 B	--
Copper	--	0.72 B	0.33 B	0.37 B	--	0.75 B	3.9	--
Iron	--	14,000 [IDW]	3,700 J	4,060	--	8,880 J	16,700 [IDW]	--
Lead	--	1.0 U	3.5	1.0 U	--	0.24 B	2.8	--
Nickel	--	5.3	3.4	2.7	--	6.8	4	--
Selenium	7.8 [GSI, FCV]	10 [GSI, FCV]	1.1 B	13.8 [GSI, FCV]	15.9 [GSI, FCV]	2.0 U	15.5 [GSI, FCV]	10.6 [GSI, FCV]
Zinc	--	10 U	5.9 B	35.5	--	28.4	13.6	--

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GROUNDWATER ANALYTICAL RESULTS - SEPTEMBER AND DECEMBER 2004
INORGANIC CONSTITUENTS

REALM INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

Location ID:	MW04-121S1	MW04-121S1	MW04-121WT	MW04-121WT	MW04-122S1	MW04-122WT	MW04-123WT	MW04-123S1	MW04-124S1	MW04-124S1
Date Sampled:	9/16/2004	12/22/2004	9/16/2004	9/16/2004	9/16/2004	9/16/2004	9/16/2004	9/16/2004	9/15/2004	12/21/2004
Sample Type:	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS
Inorganics, Dissolved (ug/L)										
Arsenic	6	--	2.9	--	2.5	10.5	6.5	2.9	8	--
Barium	332	--	60.7	--	731	303	129 J	328 J	190 J	--
Chromium	0.31 B	--	2.0 U	--	0.37 B	0.62 B	2.0 U	2.0 U	2.0 U	--
Copper	2.0 U	--	2.0 U	--	0.63 B	0.66 B	0.34 B	0.59 B	0.33 B	--
Iron	8,900 J	--	1,850 J	--	14,200 J [IDW]	4,990 J	5,760 J	6,540 J	7,530 J	--
Lead	1.0 U	--	1.0 U	--	0.29 B	1.0 U	1.0 U	1.0 U	1.0 U	--
Nickel	9.8	--	1.8 B	--	6	5	4.1	5.2	4.9	--
Selenium	16.8 [GSI, FCV]	20.2 [GSI, FCV]	8.3 [GSI, FCV]	10.9 [GSI, FCV]	2.0 U	2.0 U	1.3 B	1.5 B	7.3 [GSI, FCV]	3.5
Zinc	9.4 B	--	10. U	--	26.8	7.4 B	9.2 B	14.6	14.1	--
Inorganics, Total (ug/L)										
Arsenic	6.3	--	3	--	2.5	11.6	6.5	3.3	8.1	--
Barium	353	--	60.3	--	771	315	132 J	356 J	198 J	--
Cadmium	0.50 U	--	0.50 U	--	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--
Chromium	0.57 B	--	2.0 U	--	0.76 B	0.96 B	2.0 U	2.0 U	2.0 U	--
Copper	0.48 B	--	2.0 U	--	0.73 B	1.5 B	0.59 B	0.71 B	2.0 U	--
Iron	9,510	--	2,040	--	15,300 [IDW]	5,360	5,780 J	8,000 J	7,830 J	--
Lead	0.30 B	--	1.0 U	--	1.3	0.49 B	1.0 U	0.39 B	1.0 U	--
Nickel	10.3	--	1.8 B	--	6.5	5.1	4	5.6	5.1	--
Selenium	17.1 [GSI, FCV]	16.2 [GSI, FCV]	8.2 [GSI, FCV]	8.8 [GSI, FCV]	2.0 U	0.95 B	2.3	0.90 B	6.3 [GSI, FCV]	3.3
Zinc	13.8	--	10. U	--	26.4	8.5 B	9.2 B	10.6	7.7 B	--

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GROUNDWATER ANALYTICAL RESULTS - SEPTEMBER AND DECEMBER 2004
INORGANIC CONSTITUENTS

REALM INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

Location ID:	MW04-124WT	MW04-124WT	MW97-104S1	MW97-104WT	MW97-105S1	MW97-105S1	MW97-105WT	MW97-105WT	MW98-108S1	MW98-109S1
Date Sampled:	9/15/2004	12/21/2004	9/16/2004	9/16/2004	9/15/2004	12/21/2004	9/15/2004	12/21/2004	9/15/2004	9/15/2004
Sample Type:	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS
Inorganics, Dissolved (ug/L)										
Arsenic	8.1 J	--	0.56 B	0.72 J	4.5	--	9.3	--	0.99 B	1.3 B
Barium	228	--	785 J	662	256	--	599	--	229 J	325 J
Chromium	2.0 U	--	2.0 U	2.0 U	0.60 B	--	0.71 B	--	2.0 U	2.0 U
Copper	2.0 UJ	--	0.29 B	2.0 UJ	0.32 BJ	--	2.0 U	--	2.0 U	2.0 U
Iron	13,300 J [IDW]	--	7,480 J	1,950 J	7,350 J	--	16,200 J [IDW]	--	9,180 J	5,050 J
Lead	1.0 U	--	1.0 U	1.0 U	1.0 U	--	1.0 U	--	1.0 U	1.0 U
Nickel	6.5	--	4.4	2.2	11.8 J	--	11.6 J	--	5	3.7
Selenium	9.7 [GSI, FCV]	5.5 [GSI, FCV]	1.1 B	1.8 B	13.6 [GSI, FCV]	9.8 [GSI, FCV]	13.7 [GSI, FCV]	7.0 [GSI, FCV]	1.8 B	1.0 B
Zinc	7.2 J	--	21.6	17.8 J	6.1 B	--	14.5	--	10. U	5.7 B
Inorganics, Total (ug/L)										
Arsenic	7.9 J	--	0.83 B	0.72 B	4.5	--	8.8	--	0.98 B	1.6 B
Barium	229	--	821 J	675	264	--	559	--	220 J	321 J
Cadmium	0.50 U	--	0.50 U	0.50 U	0.50 U	--	0.50 U	--	0.50 U	0.50 U
Chromium	0.19 B	--	2.0 U	2.0 U	0.89 B	--	0.90 B	--	2.0 U	2.0 U
Copper	0.32 J	--	0.33 B	2.0 UJ	0.48 BJ	--	1.1 BJ	--	2.0 U	2.0 U
Iron	12,900	--	8,140 J	2,120	7,610 J	--	16,300 J [IDW]	--	10,100 J	5,010 J
Lead	1.0 U	--	1.0 U	1.0 U	1.0 U	--	1	--	1.0 U	1.0 U
Nickel	6.5	--	4.6	2.3	12.1 J	--	11.7 J	--	4.9	3.4
Selenium	9.7 [GSI, FCV]	5.1 [GSI, FCV]	2.1	2.3	13.6 [GSI, FCV]	9.4 [GSI, FCV]	11.6 [GSI, FCV]	8.0 [GSI, FCV]	1.5 B	1.4 B
Zinc	16.7 J	--	19.4	16.9 J	12.8	--	26.3	--	10. U	5.5 B

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TABLE 6

GROUNDWATER ANALYTICAL RESULTS - SEPTEMBER AND DECEMBER 2004
INORGANIC CONSTITUENTS

REALM INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

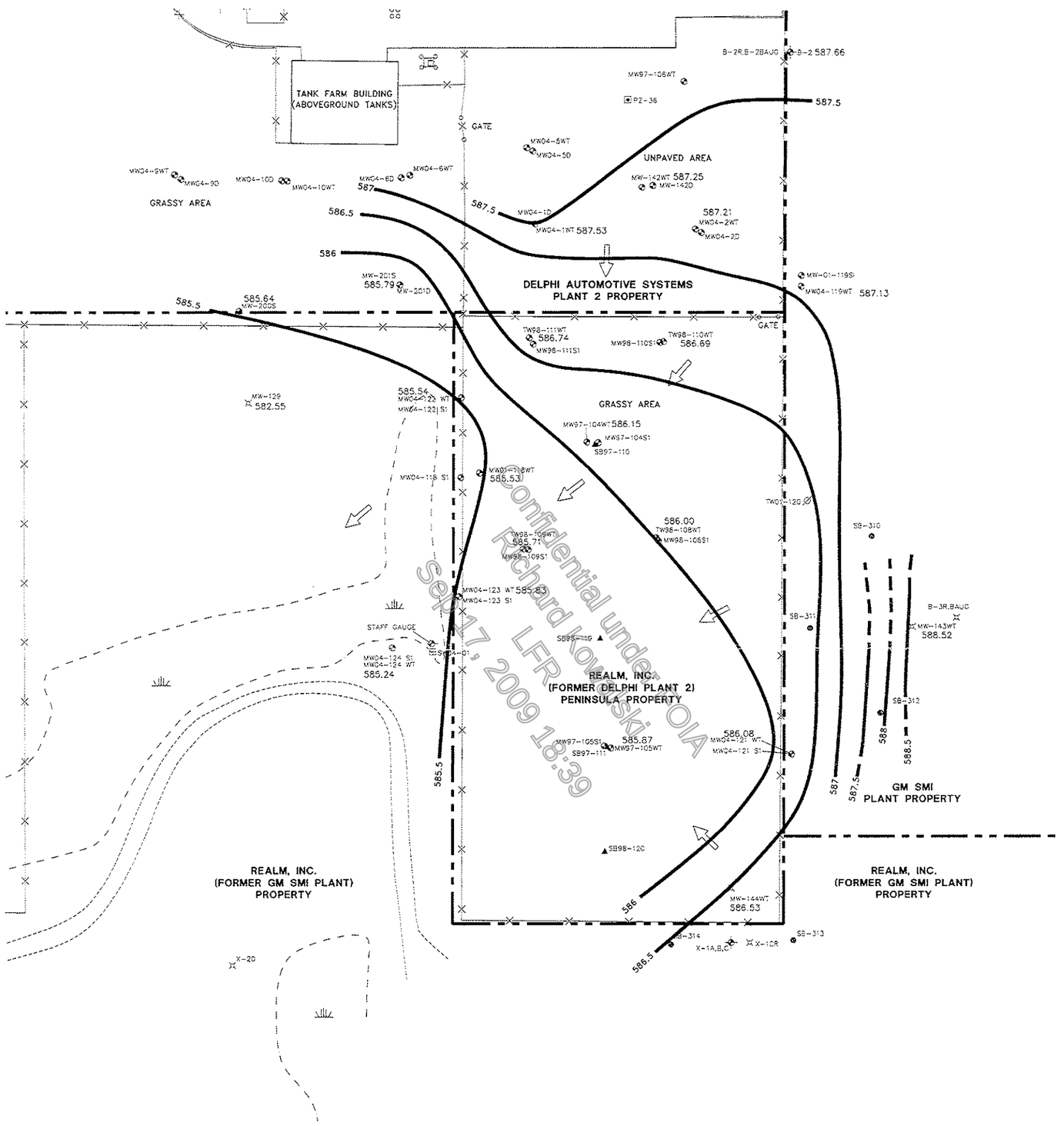
Location ID:	MW98-110S1	MW98-110WT	MW98-111S1	MW98-111WT	TW98-108WT	TW98-109WT
Date Sampled:	9/17/2004	9/17/2004	9/17/2004	9/17/2004	9/15/2004	9/15/2004
Sample Type:	FS	FS	FS	FS	FS	FS
Inorganics, Dissolved (ug/L)						
Arsenic	3.6	2.8	0.89 B	1.3 B	3.3	1.3 B
Barium	266	291	4,920 [IDW, GSI, FCV]	686	489 J	467 J
Chromium	2.0 U	2.0 U	0.75 B	0.18 B	2.0 U	0.31 B
Copper	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Iron	5,170 J	4,030 J	39,400 J [IDW]	761 J	2,660 J	1,420 J
Lead	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Nickel	3.6 J	4.3 J	3.9 J	4.3 J	1.4 B	2.4
Selenium	4.8	1.7 B	2.0 U	0.90 B	1.2 B	2.9
Zinc	5.0 B	8.6 B	135	17.6	18.2	13.8
Inorganics, Total (ug/L)						
Arsenic	3.6	2.8	1.6 B	3.4	3.4	1.5 B
Barium	282	272	4,740 [IDW, GSI, FCV]	709	511 J	469 J
Cadmium	0.50 U	0.080 B	0.50 U	0.50 U	0.50 U	0.50 U
Chromium	2.0 U	0.84 B	0.87 B	1.3 B	2.0 U	0.62 B
Copper	2.0 U	2.0 U	2.0 U	4.0 J	2.0 U	2.0 U
Iron	5,520 J	3,900 J	38,000 J [IDW]	1,180 J	2,710 J	1,530 J
Lead	1.0 U	1.0 U	1.0 U	0.59 B	1.0 U	1.0 U
Nickel	4.0 J	4.2 J	3.4 J	4.5 J	1.4 B	2.3
Selenium	4.8	2.1	1.4 B	1.9 B	1.3 B	3.3
Zinc	6.0 B	14	116	17.6	13.4	12.3

Notes:
Data shown for only those inorganic analytes detected in one or more sample(s).
Analyses were also completed for cadmium, silver, and mercury.
GSI criteria were calculated using a hardness of 370 mg/CaCO3/L.
See Generic Notes pages.

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LEGEND:

- PROPERTY BOUNDARY
- FENCE LINE
- SURFACE WATER SAMPLE COLLECTION LOCATION
- 586 GROUNDWATER CONTOUR
- 586.53 GROUNDWATER ELEVATION
- GENERAL GROUNDWATER FLOW DIRECTION

GM SMI PLANT PROPERTY RI AND OTHER COMPLETIONS:

- B-2 WATER TABLE MONITORING WELL
- X-1A,B,C MONITORING WELL CLUSTER
- SB-312 SOIL BORINGS

DELPHI PLANT 2 AND PENINSULA PROPERTY RI AND OTHER COMPLETIONS:

- MW-142D MONITORING WELL
- TW98-108WT TEMPORARY WELL
- SB98-120 SOIL BORING
- PZ-36 PIEZOMETER
- TW01-120 GRAB GROUNDWATER SAMPLING LOCATION

NOTES:

1. BASE MAP DEVELOPED FROM THE FOLLOWING: PHOTOGRAMMETRIC BASE MAP PREPARED BY LOCKWOOD MAPPING, INC. OF ROCHESTER, NEW YORK., AERIAL PHOTOGRAPHY CONDUCTED ON 11/11/94; AND BASE MAP SUPPLIED BY AIR-LAND SURVEYS, INC., AERIAL PHOTOGRAPHY WAS CONDUCTED DURING 11/90.
2. SOME SAMPLE LOCATIONS ARE APPROXIMATE.

0 50' 100'
GRAPHIC SCALE

REALM, INC.
PENINSULA PROPERTY
SAGINAW, MICHIGAN

WATER TABLE ELEVATION CONTOUR MAP - SEPTEMBER 15, 2004

BBL BLASLAND, BOUCK & LEE, INC. engineers, scientists, economists

FIGURE 8

X: 86991X01.DWG
L: ON=*, OFF=REF
P: PAGESET/SYR-GP
8/8/05 SYR-BS-GHS LAF GWS
86991005/GW/86991W01.DWG

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